



Features and Benefits

- Efficient 550m³/h heat recovery ventilation unit or high performance 900m³/h extract fan.
- Lightweight, compact and easy to install.
- Integral Shutters on X type model.
- Up to 70% heat recovery.
- Easy to clean.
- Controller with sensor mode, allows a range of sensors to be used in conjunction with the HR500 and HR500X units.

Model	Stock Ref:
HR500	141 01 010B
HR500X	141 01 070
(As HR500 but with internal backdraught shutters in external grille operated by thermo actuators.)	

Heat recovery ventilation unit for through the wall installation which exhausts stale air whilst introducing warmed fresh air from the outside. As a heat recovery ventilation unit it moves a useful 550m³/h of air. This unit is fully speed controllable with the facility to reverse the supply air fan and provide 'double extraction' for periods when heat loss is desirable.

The unit is the perfect solution to commercial areas that require a high performance balanced intake/extract scheme. Ideal for swimming pools, computer rooms, classrooms, offices and the health and leisure industries. In noise sensitive areas use an auto transformer controller.

Typical Specification

Supply and install a HR500/HR500X through the wall heat recovery unit as manufactured by Vent Axia Clean Air Systems, Fleming Way, Crawley, West Sussex, RH10 9YX, Telephone 01293 441520

Performance:	m ³ /h	l/s
Maximum ventilation rate	550.0	152.78
Speed 1 (supply)	320.0	88.89
Speed 1 (extract)	350.0	97.22
Speed 1 (extract only)	600.0	166.67
Speed 2 (supply)	410.0	113.39
Speed 2 (extract)	450.0	125.00
Speed 2 (extract only)	750.0	208.33
Boost supply rate	500.0	138.89
Boost extract rate	550.0	152.78
Boost (extract only)	900.0	250.00
N° speed settings	3	
+ extract only	1	

Efficiency: the unit should retain up to 70% of the temperature differential of out going air.

Heat exchanger: should be of a multi plate cross-flow type constructed out of a polymeric plastic with ultra sonic welded joints.

Motor: should be a 240V 50Hz A/C with sleeve bearings, greased for life. It shall operate up to an ambient temperature of 40°C and be fitted with a manual reset thermal overload protective device. The supply motor shall be configured to be reversible thus providing an extract only option.

Fan: The 2-N° metal fan impellers should be of the axial flow type.

Controls: the unit should be operated via a dedicated remote infinite variable speed and reverse switch with sensor option to allow for humidistat or PIR input.

Back Draught Shutter: the unit should have the option back draught shutter operated via a thermal actuator set to close when unit is powered down.

Filter: should be a washable reticulated foam type coarse filter.

Construction: the unit outer case should be a rigid HIPS moulding configured so as to make the unit telescopic. The internal/external grille should be a cream coloured ABS moulding.

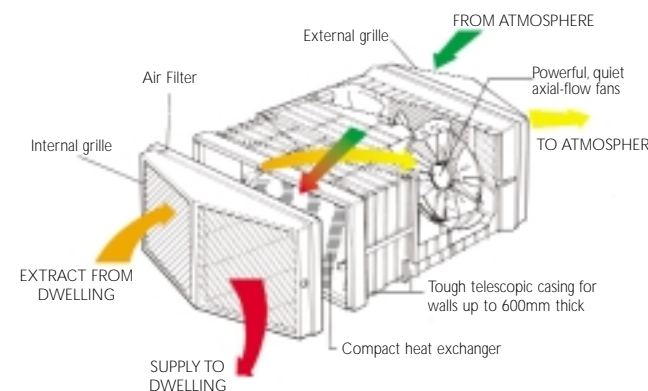
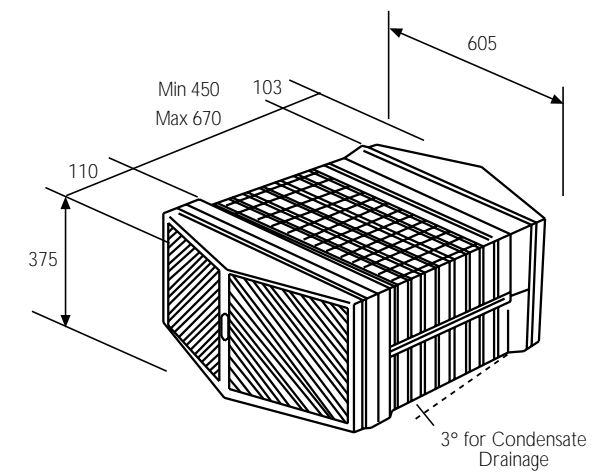
Sound Levels: dB(A) @ 3m

Maximum (heat recovery)	53.0
Maximum (extract only)	53.0

Mains electrical supply: 230VAC 50Hz.

Dimensions (mm)

Model	Weight
HR500	16kg
HR500X	19kg
Hole opening: 615 x 385mm	



Installation

The unit should be ducted to atmosphere using an integral wall liner and should fit wall thicknesses between 450 and 670mm and should have washable reticulated foam filters provided in the supply and extract airflows.

Sound Power Level Spectra dB (re10⁻¹² Watts)

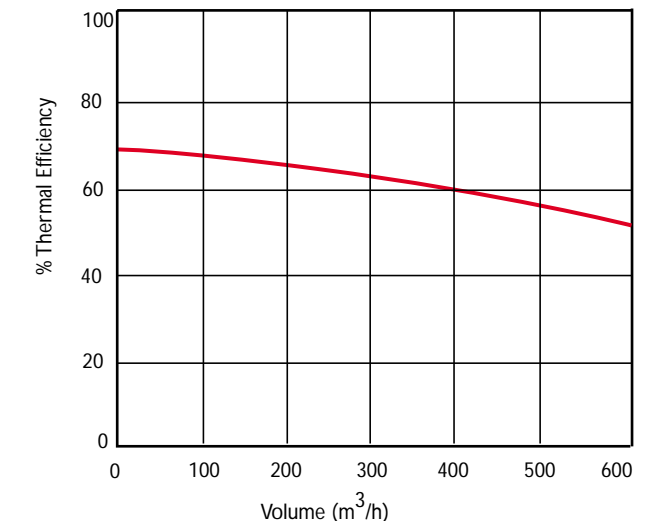
Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Heat Recovery Mode	67	76	75	74	67	60	51	38
Extract Only Mode (Both fans)	66	76	76	74	67	60	51	37

Power Consumption

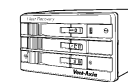
Supply fan	60.0W
Extract fan	150.0W

Performance

Heat Exchanger Efficiency



HR500 Controller (Surface Mounted)



With knockouts for recessed wiring or surface wiring. An optional flush fitting box is available. Requires 5-core cable.

- One controller will operate a maximum of 2 HR500 or HR500X units.
- On/Off/Sensor mode.
- Choice of heat exchange or high/low speed extract fan mode.
- Infinitely variable speed control from low to high.
- Adjustable minimum speed.
- With integral thermal cut-out and circuit fuse protection.

Stock Ref. No. W143 01 010

Flush Box Stock Ref. No. 40 01 44

5 Core Cable - Stock Ref. No. 56 20 30

Controllers & Sensors

Controller Options				
150VA Transformer	Ambient Response Humidistat	Visionex PIR	7 Day Timeswitch	Auto Transformer
56 35 38	56 35 50	45 96 23	56 35 15	103 14 103

For further details on controls & sensors please refer to pages 98-102.

For wiring diagrams details please refer to page 134.