HR100W/HR100WH Unitary Room Heat Recovery Units

Features and Benefits

- Installation in bathrooms/WC's.
- Meets buildings regulations for bathrooms and WC's.
- Eliminates mould.
- Controls condensation.
- 70% Heat recovery.

Model	Stock Ref:
HR100W	37 03 73
HR100WH	37 03 75

The HR100W and HR100WH units feature balanced ventilation with 70% heat recovery and provides control of condensation and odours. The units are through the wall, with a range of control and length options. Effectively controlling internal relative humidity.

Fresh pre-warmed air from the outside is continuously provided to the room with simultaneous extraction of stale, moist air. An integral heat exchanger transfers heat from the outgoing stale air to the fresh air supply, raising the temperature of the fresh air and most importantly reducing the Relative Humidity of the supply air to the room.

The HR100W has a two speed motor which provides for constant low rate ventilation automatically switching to boost speed at the factory-set humidity level of approximately 70% relative humidity at 20°C. This level can easily be adjusted by removing the front cover and heat exchanger to reveal the adjustment spindle. The HR100WH is fitted with an integral humidity sensor.

Typical Specification

Supply and install a HR100W/HR100WH single room 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:	**m³/h**	**l/s**
Maximum ventilation rate	77.0	21.39
Normal supply rate	38.0	10.56
Normal extract rate	43.0	11.94
Boost supply rate	69.0	19.17
Boost extract rate	77.0	21.39
N° speed settings	2	

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 2speed 240V 50/60Hz A/C with sleeve bearings, greased for life. It shall operate up to an ambient temperature of 40°C and be fitted with a one shot thermal overload protective device.

Fan: The two polymeric fan impellers should be a centrifugal forward curved type, dynamically balanced mounted on a common shaft.

Controls: the unit should be operated via a remote Trickle Boost Switch or via various automatic sensors. A light switch can be used providing a 'timed out' device is employed.

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

Construction the unit outer case is manufactured from white powder coated sheet metal with a white ABS internal grille and a grey UV stabilised PVC outer grille.

Sound Levels:	**dB(A) @ 3m**
Trickle	20.0
Boost	30.0

Mains electrical supply: 230VAC 50Hz.

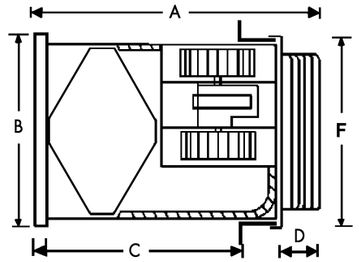
Complies to the following approvals/ directives:

VD, BEAB, EMC, CE.

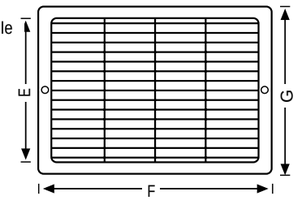
Dimensions (mm)

A	B	C	D	E	F	G	Weight
370	270	220-280	68	155	235	190	4.85

1. Plan View



2. Inner Grille View



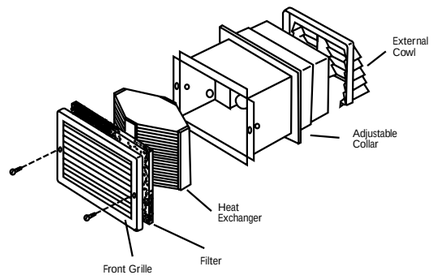
Models

HR100W - Provides balanced ventilation with heat recovery and is suitable for installation in bathrooms and WC's. Up to 77m³/h capacity (balanced airflow).

HR100WH - With built-in Humidity Sensor
A surface mounted heat recovery ventilation unit for use in bathrooms and toilets, meeting building regulations for this application. Up to 77m³/h capacity (balanced airflow).

Maintenance

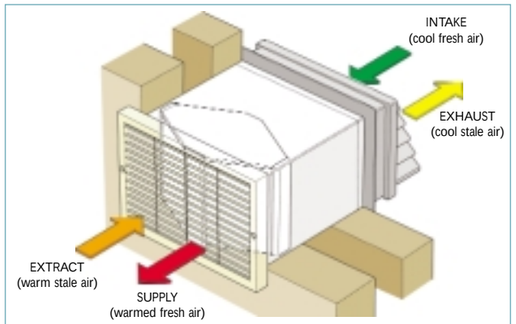
Filters should be replaced every six months or as conditions necessitate. Replacement filters can be purchased in packs of four. (Stock Ref. No. 37 03 78). The heat exchanger should be washed in warm soapy water every twelve months or as conditions necessitate. Access to the filter and heat exchanger is via two screws on the internal grille.



Power Consumption

Trickle	12.0W
Boost	31.0W

Typical Installation



Extract Performance m³/h		Intake Performance m³/h		Watts		Sound Levels dB(A) @ 3m	
Boost	Trickle	Boost	Trickle	Boost	Trickle	Boost	Trickle
77	43	69	38	31	12	30	20

HR100W units require a 240mm x 160mm hole. The unit should be fitted so that it slopes towards the outside (nominal 1°) to assist in-built condensate drainage.

The telescopic flange (adjustable to fit walls 220mm to 280mm thick) covers cutting marks and provides a surface for forming a seal with the external wall surface. An extension sleeve is available for thicker walls up to 500mm.

Extension Sleeve - EXT100

For installation in walls from 280mm to 500mm thick.
Supplied with white ABS plastic external grille
Stock Ref. No. 37 04 19

Controllers & Sensors

Can not be used with HR100WH

Controller Options					
Trickle Boost Switch	2-Way Switch + Neons	Ambient Response Humidistat	Visionex PIR	TIM2	7 Day Timeswitch
45 52 13	45 97 46	56 35 50	45 96 23	37 03 46	56 35 15

For further details on controls & sensors please refer to pages 98-102.
For wiring diagrams details please refer to page 130.