

## Envirowise Whole House Ventilation with Heat Recovery (HRV)

### Technical Data Sheet

With rising energy costs more attention is paid to insulation in the home. As a result, a greater proportion of the heating load is attributable to air changes within the dwelling.

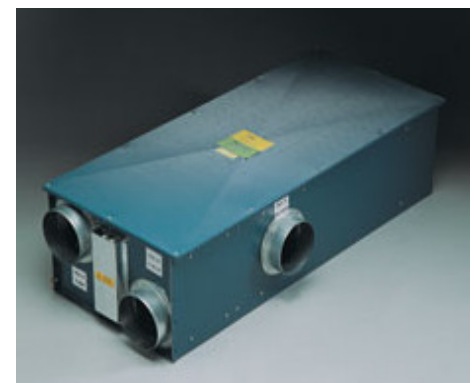
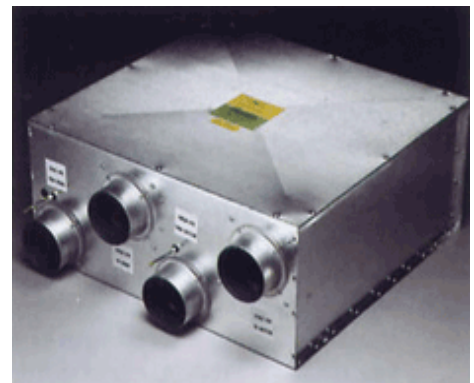
HRV controls both the supply of fresh air and the extraction of stale air to provide balanced ventilation. It recovers heat from the exhaust air to reduce the fuel bill whilst maintaining a fresh and healthy household environment.

HRV is the complete and energy saving answer to condensation, stuffiness and lingering smells, all often associated with modern tightly sealed homes. Radon gas and other more specific air contamination problems also may be alleviated by whole house ventilation. The system has been designed specifically for British homes and the British climate, with a built-in heat recovery system that recycles up to 70% of the heat from stale extracted air. There is a wide range of systems to adapt to different types of property.

The system operates by extracting stale, moist air from the rooms where this is mainly generated, the kitchen, bathrooms and toilets. This air is routed through ducts to the central unit where a heat exchanger removes up to 70% of its heat before expelling the unwanted air to outside. At the same time fresh air is being drawn from outside via the central unit where it is warmed using the heat recovered from the stale air. The two air streams never mix. The pre-warmed fresh air is then ducted to the living rooms of the house, the lounge, dining and bedrooms. In this way continuous ventilation is given throughout the home to provide a healthy household environment, free from stale, stuffy air and problems caused by excessive moisture.

#### Air handling unit

The heart of the system is the corrosion resistant galvanised steel air handling unit which houses two high performance centrifugal fans, one for stale air extraction and the other for fresh air supply. The fans are of the external rotor motor type designed to give many years of maintenance free service, their impellers generate high pressure to overcome duct resistance but at a low noise level to produce a quiet system. The unit also contains the efficient, cost effective, cross flow plastic heat exchanger and is provided with a drain connection to dispose of the condensate that forms as the stale air is cooled. A range of air handling units is available to suit the requirements of different size houses and installation situations.



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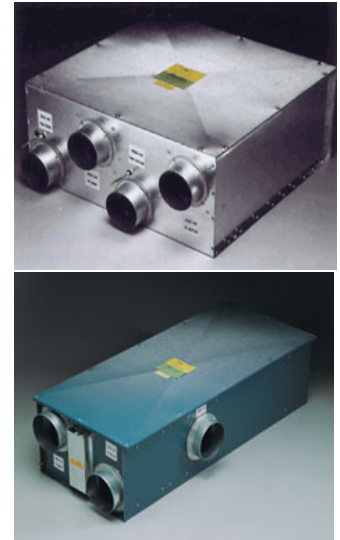
### Special Features

#### General

- Unobtrusive and quiet in operation.
- Loft or room mounted central air units with integral heat exchanger.
- Wide range of fittings and accessories for application flexibility.
- Choice of manual or automatic, control facilities.
- Heat recovery of up to 70%. (BISRIA test certificate ID48430).
- BEAB approved.
- Conforms to Building Regulations.
- Free design service.

#### Benefits

- Recovers heat that otherwise would be wasted.
- Provides a fresh atmosphere in the home.
- Reduces condensation, damp and mould growth.
- Reduces heating bills.
- No requirement for open windows (improved security).
- Removes cooking and other odours.
- Reduces house mite population, thereby alleviating the risk of asthma and hay fever.



#### HRV 175

##### Application:

Flats or small houses up to a volume of 300m<sup>3</sup>. Loft or wall installation.

##### Performance:

175m<sup>3</sup>/h-60dB(A)

##### Electrical:

220/240v ac-50Hz. Power consumption 160 watts. Fuse 3 amp.

##### Models:

Standard model with thermal insulation for loft mounting. Option of acoustic insulation for cupboard mounting in flats.

##### Fixing:

Dimensions 600w x 600h x 300d.  
Primary duct size 100mm.

#### HRV 200

##### Application:

Larger 4/5 bedroom houses up to a volume of 450m<sup>3</sup>. Primarily loft insulation but may be wall mounted.

##### Performance:

325m<sup>3</sup>/h-62dB(A)

##### Electrical:

220/240v ac-50Hz. Power consumption 190 watts. Fuse 3 amp.

##### Models:

Standard model with thermal insulation for loft mounting. Option of acoustic insulation for cupboard mounting in flats.

##### Fixing:

Dimensions 965w x 265h x 430d.  
Primary duct size 125mm.

#### Order Codes

HRV175

Unit for flats and small houses

HRV200

Unit for larger houses and applications