Borders Green Energy

Intelligent interior climate systems

Reduce your carbon footprint to a fingerprint

Breathable Environment - Efficient Ventilation

In modern houses where air tightness now forms a critical part of meeting building regulations, the need for ventilation is paramount for maintaining air quality. It is important for the health of the occupants that CO2 levels are kept within safe limits, that pollutants are filtered, and fresh air is constantly cycled.

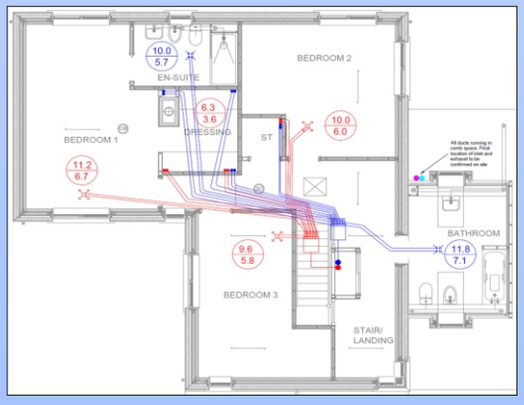
Mechanical Ventilation with Heat Recovery

Mechanical ventilation with heat recovery (MVHR) is a whole house ventilation system that pre-heats incoming fresh air using the residual heat extracted from warm rooms such as bathrooms, kitchen, utility, and rooms with additional heat sources. Up to 95% of heat can be recovered, reducing overall heating costs by up to a third.

A properly designed MVHR system eliminates the need for trickle vents or open windows. You wouldn't choose to heat your home and then let the heat out through open windows!

By maintaining good air quality, the risk of condensation and mould is eliminated. MVHR is not only healthy for the occupants, but also for the building itself. The air handling unit would normally be located in a utility cupboard, or possibly in a loft space, and the occupants would be unaware of its presence as it is virtually silent.

Warmed incoming fresh air is distributed via flexible ducts installed in the joists and ceiling voids. MVHR constantly cycles air throughout the building to maintain air quality automatically, or according to a choice of set programmes.

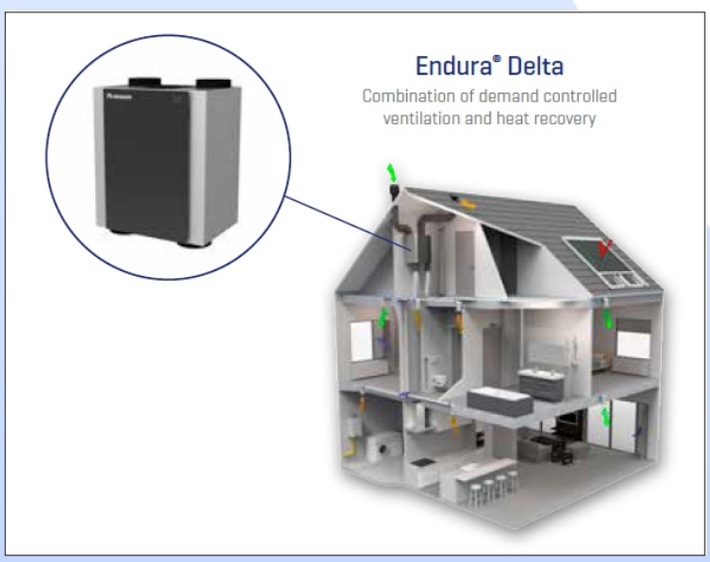


Demand Control Mechanical Ventilation with Heat Recovery (DC MVHR)

For even more efficiency than the MVHR system, demand controlled ventilation operates automatically when required in individual rooms, thanks to sensors that detect increased levels of carbon dioxide, humidity, or volatile organic compounds (VOCs).

Whereas a traditional MVHR runs continuously in order to monitor humidity, DC MVHR senses air quality and only operates when it detects a need, and only extracts from rooms where the air has become polluted.

For example, when cooking, the sensors in the system pick up the cooking smells and humidity from the kitchen, and expel the polluted air via the kitchen extractor vent. The warm stale air passes through a heat exchanger, where incoming fresh air is warmed and distributed back into the building, maintaining a healthy and comfortable atmosphere. Because the system only operates when there is a need, this reduces your energy consumption even further when compared with an MVHR system.



Renson DC MVHR controller.

We put our energy into your comfort

- We are MCS accredited for the installation of ground and air source heat pumps and solar thermal panels. MCS number: NAP14681
- We specialise in combining heat pumps with underfloor heating.
- We care for every project as if it were our own.
- We use quality products and equipment with excellent guarantees.
- We provide a bespoke design service to suit your project.
- Our installation photos are used in our suppliers' manuals and training literature, and have also been used in various national building magazines.
- We offer advice and support from the planning stage, right through to completion and beyond.
- We provide an unrivalled after sales service.

Thank you for considering our company.
Simon & Pauline Currie.

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