

Heat Recovery Ventilation

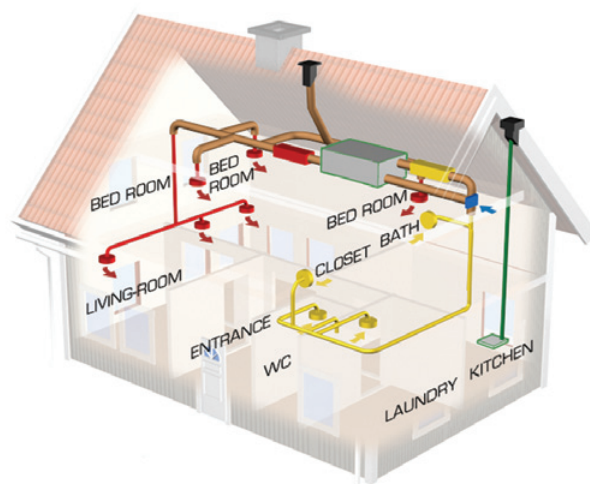


Most of us spend about 80% of our time indoors yet we give little thought to the quality of the indoor air we breathe. The purpose of ventilation is to remove old, stale air and take in clean, fresh air therefore controlling levels of CO₂, Humidity and Radon. Nowadays ventilation is also focused on doing this in an energy efficient way by using systems with low power consumption and high rates of heat recovery.

- **Fully controlled draught free ventilation.**
- **Low Energy Consumption with high rate of energy recovery.**
- **Better air quality with clean air and humidity control.**
- **Reduced radon risk & eliminates condensation.**
- **Benefits for Asthma and Hay fever sufferers.**
- **Improved Building Energy Rating (BER).**
- **Adds value to your property.**

How it works (the basics)

- 1** The most complete form of ventilation system is the balanced ventilation system. Fans control the supply and exhaust air ensuring the correct volume of fresh air is circulated.
- 2** The extracted air is passed through the heat exchanger which recovers most of the heat energy and transfers it into the fresh air before it is ducted into the rooms.
- 3** The air is filtered as it passes through the ventilation unit removing pollen, dust and other contaminants.
- 4** The fresh air is supplied to bedrooms, living rooms, dining rooms etc. & extracted from bathrooms, kitchens, utility rooms etc.
- 5** Low energy usage (with EC motors), good control and high energy recovery results in greater building energy efficiency.

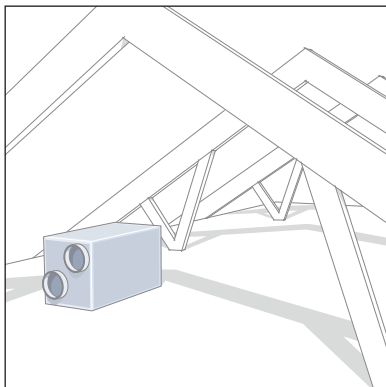


Installation

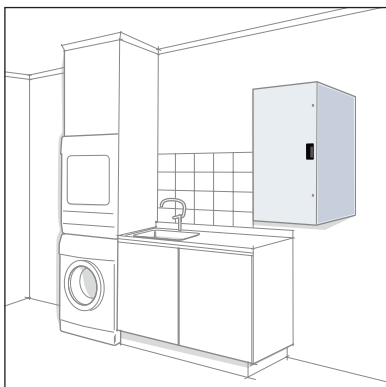
Heat Recovery Ventilation systems are usually installed in a building during construction. A network of ducts is installed to distribute the supply air and to collect the extract air and carry it back to the ventilation unit.

The air system is balanced to ensure that the air is correctly distributed around the house. Temperature sensors connected to the main control unit ensure that air is not sent into rooms at too low a temperature during cold weather. A summer by-pass function allows the unit to help cool the building in warm weather.

By installing a Heat Recovery Ventilation system you eliminate the need for wall and window vents, which are basically intentional leaks through your insulated building structure.



Cross Flow Heat Exchanger



Rotary Heat Exchanger

Installation process

- Ductwork is installed hidden the attic, ceilings and partition walls before slabing.
- The ventilation unit is positioned in the attic, basement, utility room or cupboard.
- When the internal plastering has been completed and the rooms have been painted the air valves can be fitted in each of the rooms.
- The ventilation unit is connected to the power supply and wired to the speed controller.
- When the building is ready to be occupied the system can be commissioned.
- Commissioning of the ventilation unit involves setting the required air flow volume in the unit and matching the supply air volume with the extract air volume.
- Balancing of the duct system involves adjusting the air valves to ensure that the correct amount of air is supplied and extracted from each room.
- The system is left running and handed over.

