Balanced Ventilation

Improve air quality and health

Efficiency Vermont Residential New Construction Guidance

Why balanced ventilation matters

Exhaust-only ventilation systems (the "bath fan" strategy) only extract air from a home—they don't bring in fresh air. This depressurizes the house and "fresh" air enters the home through open windows, leaks in the building envelope, etc. How does fresh air get where you want it, such as bedrooms and other living spaces? It might not—you have no control.

Increase comfort

Lessen reactions to poor air

Protect against moisture

Reduce risk of long-term damage from condensation

Waste less energy

Recover heat from exhaust air going out to pre-heat fresh air coming in

Create healthier indoor air

Remove carbon dioxide, pollutants, and allergens

Balanced ventilation systems deliver fresh outdoor air directly to the spaces where you want it and remove air from bathrooms, kitchens, and other places in the home that are laden with moisture, odors, and pollutants.

Balanced ventilation that incorporates heat recovery helps avoid dumping air outdoors that homeowners have already spent money to heat (in winter). Running exhaust air through a highly-efficient heat exchanger to preheat fresh air from outside avoids wasting energy and money.

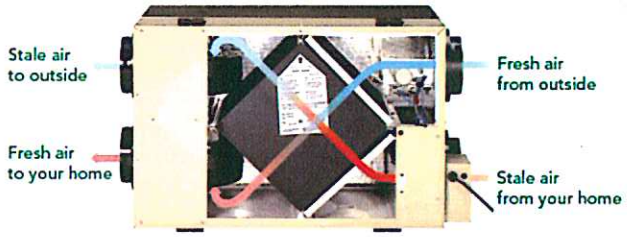

Image courtesy of http://vanee.edenenergy.com/hw-vanee-airexchanger.php

A heat recovery ventilator is a system, not a plug-and-play appliance. Follow these guidelines to avoid problems down the road:

Unit selection: Install a ventilator with a sensible recovery efficiency (SRE) of 75% or higher that uses an electrically commutated motor (ECM). An efficient ventilator may not cost significantly more, but can dramatically improve fresh air temperature (and save on energy bills) on a cold winter day.

Duct design: Ductwork should be designed carefully, and the system should be tested after installation to ensure proper air flows in each room where air is delivered or removed.

Location: Ventilators and ductwork should always be in conditioned spaces, and ideally in a spot that can be accessed easily for regular filter changes/cleaning and maintenance.

Use it: Balanced ventilators are designed to operate continuously. Familiarizing yourself with the ventilator's operation can help keep the air in your home healthy and reduce potential moisture issues.