

A 2007 Eco-Efficiency Success Story



Nu-Air
Ventilation
Systems Inc.
Windsor, NS

Energy efficiency while breathing easy

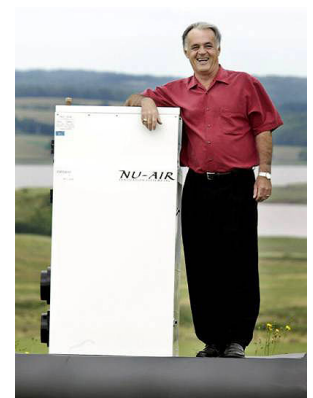
Nu-Air Ventilation Systems Inc. of Windsor, Nova Scotia is a leading manufacturer of high quality Heat Recovery Ventilators (HRVs) for residential and light commercial use. They are also one of six companies who had partnered with the Government of Canada through the Climate Change Action Fund to develop advanced integrated comfort and air quality products that meet stringent design and performance standards.

The integrated system Nu-Air has developed uses state of the art technology and synergies of integration to more efficiently provide ventilation, space heating/cooling and domestic hot water in residential buildings. The system directly conserves energy by heating water and spaces more efficiently. By integrating an HRV, it also enables the construction of more energy efficient building envelopes.

With the Nu-Air HRV, both the exhaust and incoming fresh outdoor air streams pass through a core, and the heat from the exhaust air is used to pre-heat the incoming air stream. Only the heat is transferred; the two air streams remain physically separate. Typically, such a system is able to recover 70 to 80 percent of the heat from the exhaust air and transfer it to the incoming air. This dramatically reduces the energy needed to heat outdoor air to a comfortable temperature and to maintain healthy indoor air quality.

Nu-Air's Advanced Integrated Mechanical System (AIMS) provides an innovative means of air handling, including energy efficient intelligent motors, energy efficient uninterrupted frost-free ventilation, and an advanced hot water coil design. All these components combine to give space heating or cooling, hot water and continuous ventilation with heat recovery in one compact, energy efficient footprint.

The Nu-Air facility is heated using its own technology to reduce heating costs. T8 fluorescent lighting, LED exit signs, and LCD computer screens are employed to reduce energy consumption. All faucets have aerators to keep water use at a minimum. Computer programs are also used in sizing and placing items on sheet metal to minimize waste. Pallets are customized for shipping to reduce space and packaging needs, and scrap wood is bundled for kindling for employees. Recycling and reuse of paper, cardboard, metal and refundable containers are all practiced by the company. Nu-Air is implementing lean manufacturing for all its products.



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