Heat recovery ventilators (HRV) and energy recovery ventilators (ERV) are air exchange systems that help to enhance indoor air quality and minimize heating costs by recovering energy from the exhaust air to the incoming fresh air. These mechanical systems use fans to maintain a balanced airflow into the home while removing stale air.

What is the difference between an HRV and an ERV?

HRVs and ERVs are similar devices in that both supply air to the home and exhaust stale air while recovering energy from the exhaust air in the process.

The primary difference between the two is that an HRV transfers heat while an ERV transfers both heat and moisture. Both ventilation systems place the control of air quality and air exchange in the hands of the homeowner rather than relying on inherent, often inadequate, leaks in the home to provide necessary ventilation.

The Home Ventilating Institute (HVI), founded in 1955, is a non-profit association of the manufacturers of home ventilating products. Through certified ratings programs, HVI provides a voluntary means for residential ventilation manufacturers to report comparable and credible product performance information based upon uniformly applied testing standards and procedures performed by independent laboratories. HVI represents manufacturers from the USA, Canada, Asia and Europe producing the vast majority of the residential ventilation products sold in North America.

Whether considering an HRV, ERV or other mechanical ventilation product, choose only products with the HVI Certified label for peace of mind, confidence, and reliability.

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About the Home Ventilating Institute


With today's escalating energy costs, homeowners are more concerned about the energy efficiency of their homes. "Green" construction is becoming increasingly popular. As a result, today's homes are constructed using inherently requiring better ventilation and airtightness. While this makes homes more energy-efficient, it also reduces the natural flow of fresh air into the home which can cause indoor air quality to suffer. Proper indoor air quality can pose health hazards to occupants and can also cause cosmetic and structural damage to the home.

Mechanical ventilation systems provide an easy, reliable, and proven solution. They remove stale air and replace it with an inflow of fresh air which makes the home healthier and more comfortable.
What are the benefits of HRV/ERV systems?

Properly selected and installed HRV and ERV units provide several benefits:

✓ Provide an energy-efficient means to exhaust indoor pollutants to improve indoor air quality.
✓ Maintain a continuous supply of fresh, filtered, and tempered outdoor air throughout the home.
✓ Control excess indoor humidity when outdoor humidity levels are lower.
✓ Recover heat from the exhaust air in winter.
✓ Cool incoming air in summer when the house is air-conditioned.

In addition, since ERVs have the ability to transfer moisture, they help prevent excess dryness in the cold season and reduce the demands on the air-conditioning system in the warm season.

Will an HRV/ERV save on utility costs?

Yes! In fact, mechanical ventilation systems are the only effective way to ventilate a tightly built home in order to provide a healthy, comfortable indoor environment. An HRV/ERV system provides critical ventilation while recovering heat and air conditioning energy which will save energy bills. An ERV or HRV will pay for itself when compared to other mechanical ventilation options.

Which one is right for me? HRV or ERV?

An HRV and ERV are similar in that they both supply and exhaust air from the home while recovering heat and air conditioning energy. However, ERVs have been more commonly used in homes where the primary concern is high humidity in winter. ERVs are typically recommended where moderating between humidity extremes is a year-round concern.

Why should I choose an ‘HVI Certified’ product?

In short, peace of mind:
✓ Assurance that the product has been independently tested and certified to meet specific industry standards.
✓ Assurance that the product will perform as promised.
✓ Assurance that, when installed properly, appropriate ventilation will be achieved to maximize indoor air quality.

Infused performance ratings are common for HRV/ERVs that are not ‘HVI Certified’. Selecting HRV/ERVs with ‘HVI Certified’ performance ratings will ensure that the benefits of ventilation are achieved and building code requirements are met. HVI is the authority for testing residential ventilation products. Using sophisticated lab facilities and accurate testing methodology, HVI annually tests and routinely verifies the performance of products that have been voluntarily submitted for rigorous testing. Only products that meet or exceed the required ventilation efficiency standards are awarded the ‘HVI Certified’ label.

Where can I find more information?

www.hvi.org: HVI’s website offers consumers a variety of resources including a Certified Products Directory. It is updated monthly and provides a list of manufacturers and their ‘HVI Certified’ products.

Fresh Ideas Ventilation Guide: This valuable guide explains the numerous methods of residential ventilation including heat and energy recovery ventilators. It contains easy-to-understand charts, illustrations and instructions to obtain a printed copy or download it from the HVI website.