

► **Ventilation for Indoor Air Quality**

Proper ventilation with outside air is essential for good indoor air quality. Meeting *ASHRAE Standard 62* and building codes requires the introduction of outside air at minimum rates of 15 to 60 cfm per person depending on the application and occupancy. Energy recovery reduces the operating costs associated with conditioning this code-required ventilation air.

► **Reduced Peak Demand**

Energy recovery can significantly reduce the heating and cooling load imposed by the outside air. Design load savings of up to 4 tons per 1,000 cfm cooling and 80,000 Btu/hour per 1,000 cfm heating allow for significant downsizing of the cooling and heating equipment. Smaller equipment means smaller loads and reduced electric demand, precisely when you need it most.

► **Increased System Efficiency**

Exhaust air from the building, which has already been heated or cooled, is used to precondition the outside air. Because this is recovered energy that is normally wasted, the efficiency of the heating and cooling system is dramatically improved. Efficiency increases of up to 40% are possible with energy recovery.

► **Improved Humidity Control**

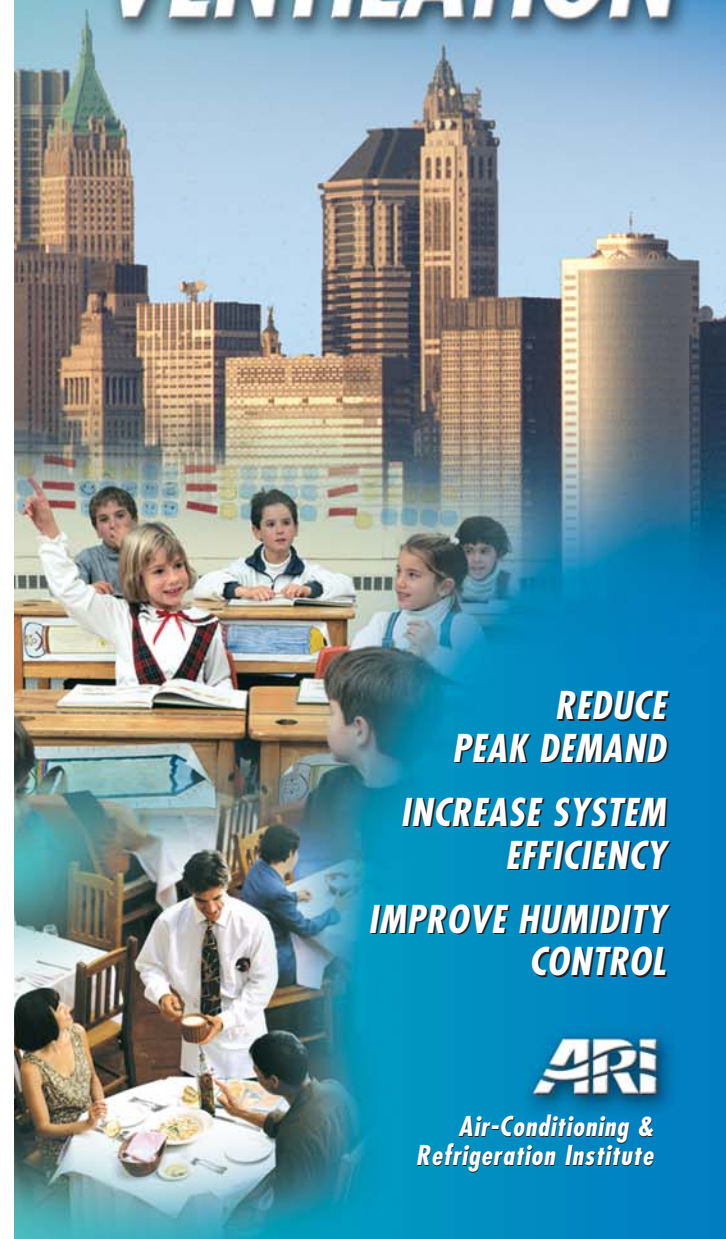
Keeping indoor humidity low in the summer is critical for comfort and preventing the growth of mold and mildew. Bringing in large amounts of humid outside ventilation air can make it hard to control indoor humidity. Applying energy recovery ventilation in your system can reduce the moisture load and allows the cooling system to do its job. Total energy recovery can help to preserve healthy humidity in the winter too.



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ENERGY RECOVERY VENTILATION



**REDUCE
PEAK DEMAND**

**INCREASE SYSTEM
EFFICIENCY**

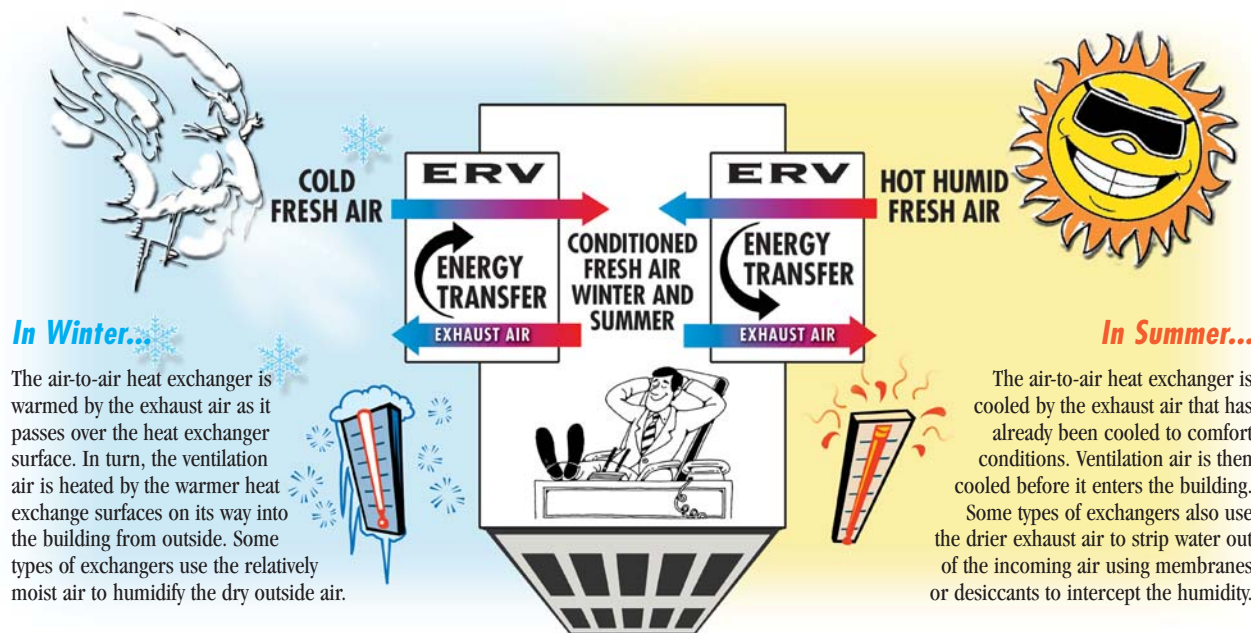
**IMPROVE HUMIDITY
CONTROL**



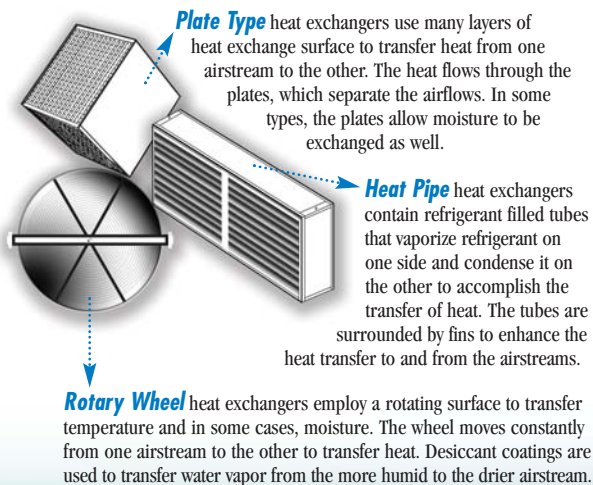
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HOW ENERGY RECOVERY WORKS

Energy recovery ventilation uses an air-to-air heat exchanger to recover space-conditioning energy from exhaust air, and then uses that energy to precondition the outside air before it enters the building or the HVAC system.



Types of Energy Recovery Ventilation Heat Exchangers



ARI's Air-to-Air Energy Recovery Ventilation Equipment Performance Certification Program

covers all these technologies and is your assurance of products that live up to their catalogued performance. Only units that are submitted and checked regularly for performance are eligible to bear the *ARI 1060 Performance Certification Seal*. Components are certified for performance and packaged units are certified to contain these components. The *Directory of Certified Air-to-Air Energy Recovery Ventilation Equipment* is updated continuously and is available on the ARI website at www.ari.org/directories/erv.



Insist on the ARI Seal

Energy Recovery Ventilation is the fastest growing HVAC technology for saving energy, increasing efficiency and reducing peak load.

Energy Recovery Ventilation is a win-win-win proposition that benefits occupants, owners and utilities alike. Energy Recovery Technology is applicable to virtually every building, including:

- Schools
- Offices
- Bars
- Restaurants
- Theatres
- Clubs
- Hospitals
- Clinics
- Exercise Facilities
- Homes
- Dormitories
- Churches
- Halls
- Supermarkets
- Manufacturing Plants
- Printing Shops
- Salons
- Animal Shelters, etc.

Energy Recovery Ventilation can be incorporated into any HVAC system and is widely available in a variety of products, including:

- Residential Energy Recovery Ventilators
- Stand-Alone Commercial Energy Recovery Ventilators
- Accessories for Unitary Packaged Air Conditioners
- Packaged Air Conditioning Systems with Integrated Energy Recovery
- Standard, Semi-Custom and Custom Air Handlers