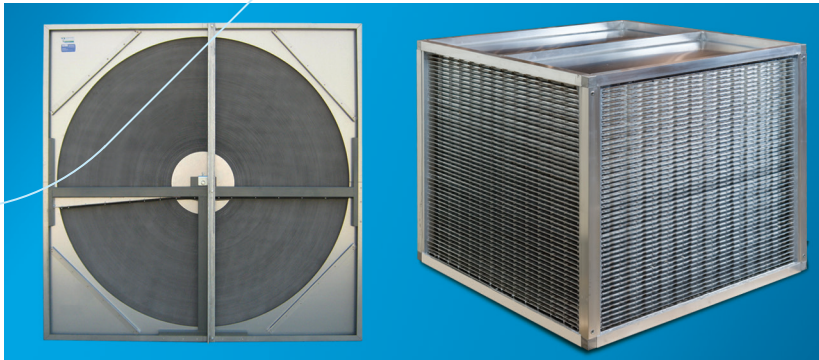




**Innovent**  
Air Handling Equipment

**Data Sheet**



## OPTIMIZE ENERGY RECOVERY **TO BETTER MEET YOUR NEEDS**

**Energy recovery has been our focus since our beginning.**

Innovent has been engineering and innovating energy recovery devices since 1981. Today, we offer five different options. Our experienced Innovent design engineers can help you select the optimal energy recovery technology for your air handling unit based on varying applications, climate conditions, and available maintenance resources.

### **About Energy Recovery**

Energy recovery systems recapture energy from a building's exhaust air stream and transfer it to fresh incoming outdoor air. When cooling is desired, energy recovery systems pre-cool and can partially dehumidify the outdoor air reducing the load on air conditioning equipment. In cooler months, the outdoor air is pre-heated and can be partially humidified, lowering demand on heating

equipment. Energy recovery's ability to temper air saves building owners money by reducing the size of heating and cooling equipment required, in addition to lowering monthly energy costs.

### **Why Choose Innovent for Energy Recovery?**

- Innovent's experienced energy recovery experts help you select the most effective technology for your project.
- Our top quality components and superior craftsmanship ensure years of reliable, energy efficient operation.
- Units can be designed for lowest first cost, lowest operating cost or lowest maintenance cost. We give you choices and don't force you into one technology.

**BUILT TO ORDER. BUILT FOR EFFICIENCY. BUILT TO LAST.**



# WHICH ENERGY RECOVERY SYSTEM IS BEST FOR YOUR APPLICATION?

## Enthalpy Wheel

An enthalpy wheel can provide the highest amounts of both sensible and latent energy recovery in applications with relatively clean return air, due to moderate cross contamination between the supply and return airstreams. Proper and routine maintenance is required to ensure rotation and effectiveness of the wheel.

## Enthalpic Core Heat Exchangers

An enthalpic plate offers high amounts of sensible and latent energy recovery, and low amounts of cross contamination between air streams. No moving parts reduces maintenance requirements.

## Flat Plate Heat Exchangers

Flat plate heat exchangers provide sensible-only energy recovery, with almost zero cross

contamination. This simple design contains no moving parts.

## Heat Pipe

Heat pipes provide sensible only energy recovery by transferring refrigerant through a coil-like device. This creates very low cross contamination between side-by-side airstreams, with a relatively small footprint.

## Run-around Coils

For applications with contaminated exhaust (ex. lab setting), run-around coils can provide energy recovery and ensure zero cross contamination. This is achieved by placing coils in separated supply and exhaust air streams and pumping fluid between them to transfer energy.

| CATEGORY                               | Enthalpy Wheel    | Enthalpic Core           | Flat Plate           | Heat Pipe                  | Run-around Coils                   |
|--|-------------------|--------------------------|----------------------|----------------------------|------------------------------------|
| <b>Heat Transfer Medium</b>            | Paper or polymer  | Paper, polymer, or metal | Aluminum             | Refrigerant                | Glycol Solution                    |
| <b>Sensible Performance</b>            | 70-90%            | 60-70%                   | 50-65%               | 35-55%                     | 30-45%                             |
| <b>Latent Performance</b>              | 65-80%            | 35-50%                   | 0%                   | 0%                         | 0%                                 |
| <b>Internal Pressure Drop</b>          | Moderate          | High                     | Low                  | Moderate                   | Moderate                           |
| <b>Leakage and Cross Contamination</b> | Moderate          | Very Low                 | Almost None          | Almost None                | None                               |
| <b>Maintenance</b>                     | Moderate, rotates | Low, no moving parts     | Low, no moving parts | Low, requires refrigerants | Moderate, requires fluid and pumps |



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