



OPTIMIZE ENERGY RECOVERY

TO BETTER MEET YOUR NEEDS

Innovent offers the industry's most diverse portfolio of energy recovery options, from sensible flat plate heat exchangers to enthalpy wheels to regenerative heat recovery.

With over 40 years of air-to-air energy recovery experience, Innovent will help you select the optimal energy recovery technology to meet the needs of your specific application.

WHY CHOOSE INNOVENT ENERGY RECOVERY?

- A breadth of options to match the right technology to your application
- Integration into a completely custom ventilation unit with heating, cooling, filtration, and controls — giving you the ability to maximize energy transfer between air streams with tremendous design flexibility. Casing can be designed to accommodate section splits for tight installations or for very large airflows (up to 400,000 cfm)
- Units can be designed for lowest first cost, lowest operating cost, or lowest maintenance cost. Tempering incoming air, in both heating and cooling seasons, minimizes operating costs and can even reduce first cost by reducing equipment load requirements



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APPLICATION SPECIFIC ENERGY RECOVERY

- ENTHALPIC CORE HEAT EXCHANGER.** 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.
- 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.
- SENSIBLE FLAT PLATE HEAT EXCHANGER.** 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.
- REGENERATIVE ENERGY RECOVERY.** Latent and sensible energy transfer with no preheat required and efficiencies upwards of 95%. Unlike an enthalpy wheel that rotates between two separated airstreams, Accubloc's heat exchanger modules are fixed in place. Energy transfer occurs by controlling return and outdoor airflows through two banks of fast-acting two-position dampers.

| CATEGORY | Enthalpy Wheel | Enthalpic Core | Flat Plate | Heat Pipe | Run-around Coils | Regenerative Energy Recovery |
|---------------------------------|-------------------|--------------------------|----------------------|----------------------------|------------------------------------|--------------------------------|
| Heat Transfer Medium | Paper or polymer | Paper, polymer, or metal | Aluminum | Refrigerant | Glycol Solution | Aluminum |
| Sensible Performance | 70-85% | 60-70% | 50-65% | 35-55% | 30-45% | 85-95% |
| Latent Performance | 65-80% | 35-50% | 0% | 0% | 0% | 70-80% |
| Internal Pressure Drop | Moderate | High | Low | Moderate | Moderate | Moderate |
| Leakage and Cross Contamination | Low | Very Low | Almost None | Almost None | None | Low |
| Maintenance | Moderate, rotates | Low, no moving parts | Low, no moving parts | Low, requires refrigerants | Moderate, requires fluid and pumps | Moderate, moving damper blades |



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