



Total energy recovery systems

Engineered solutions



For over 75 years, Alfa Laval Kathabar has engineered and manufactured liquid and dry desiccant systems for dehumidification and energy recovery applications. Our technologies improve the reliability, economy and efficiency of any manufacturing or processing operation that is humidity, temperature or microorganism-sensitive. We meet the ever-changing needs of our customers with quality products – providing reliable, precise and economical temperature and humidity control.

The Alfa Laval Kathabar twin-cell energy recovery system provides a perfect solution for a wide range of applications for industrial, commercial, institutional and green/LEED facilities.

Advantages:

- Total energy (enthalpy) recovery – recovers both sensible (temperature) and latent (moisture) energy from the exhaust airstream; system typically recovers more than twice as much energy as sensible devices (air-to-air exchanger and run-around coils).
- Utility savings – system reduces heating and cooling energy up to 70%, and decreases carbon footprint.
- Large capacity range – single unit sizes available up to 84,000 CFM, and multiple supply exhaust units can be coupled to accommodate to larger airflows.
- Winter humidification without humidifier – consistent supply of temperature and humidity all winter; system only requires the use of a small water make-up line, and eliminates the concern of mold and bacteria due to biocidal desiccant.
- Flexible equipment configurations – system can be configured to use multiple exhaust systems to feed a single supply, or vice versa.
- No microbiological cross-contamination/cross leakage – supply and exhaust airstreams never come in contact with each other; biocidal desiccant scrubs ventilation air and exhaust of airborne bacteria, viruses and mold.
- Industrial FRP (fiberglass) construction – long equipment life and reliability.
- Comfort control – control temperature and humidity while improving indoor air quality.

KATHABAR

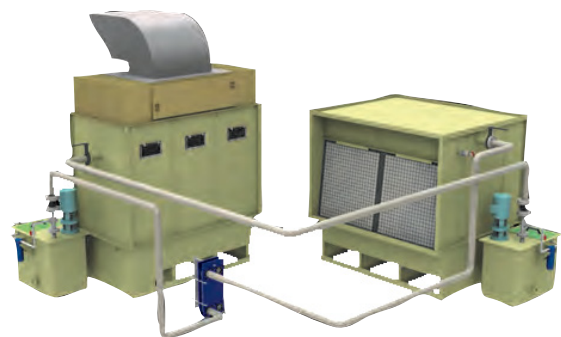
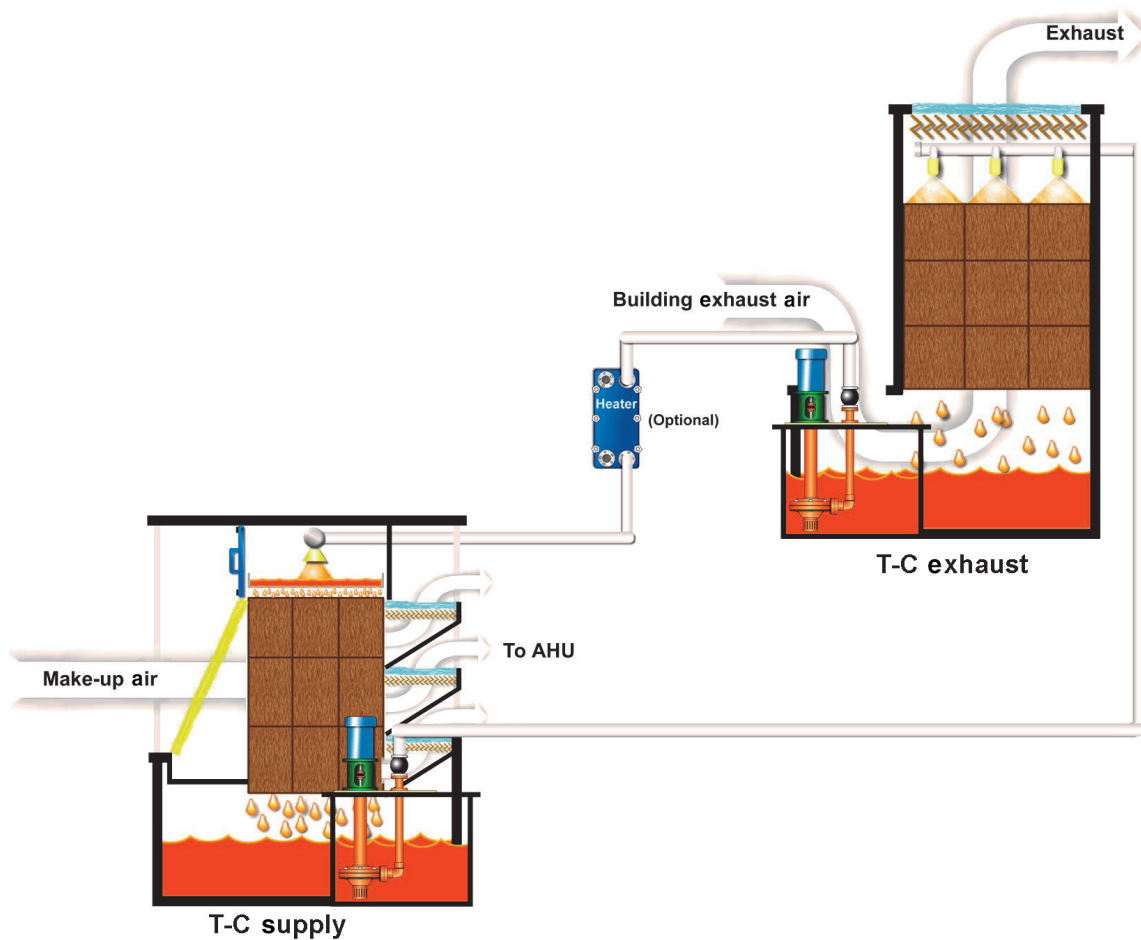
How it works

More than 60% of a building's energy usage is related to HVAC. With efficiencies up to 70%, the Alfa Laval Kathabar twin-cel energy recovery system exchanges temperature and humidity between ventilation and building exhaust air via a biocidal desiccant transfer solution. In each twin-cel section, the desiccant solution passes through high-efficiency packing where it contacts the airstream.

In the summer, the warm, moist ventilation airstream is cooled and dehumidified by transferring energy to the

relatively cool, dry building exhaust. In the winter, the cold, dry ventilation air is heated and humidified by the relatively warm, moist building exhaust. The difference in enthalpy between the building exhaust air and the entering ventilation air is key in the twin-cel energy recovery process.

Each system is optimized for energy efficiency. When possible, existing exhaust streams are harnessed to power the regeneration process.



Twin-cel energy recovery system

Alfa Laval Kathabar
Phone +1 716-875-2000
Email: sales.kathabar@alfalaval.com
Web: www.kathabar.com

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com