

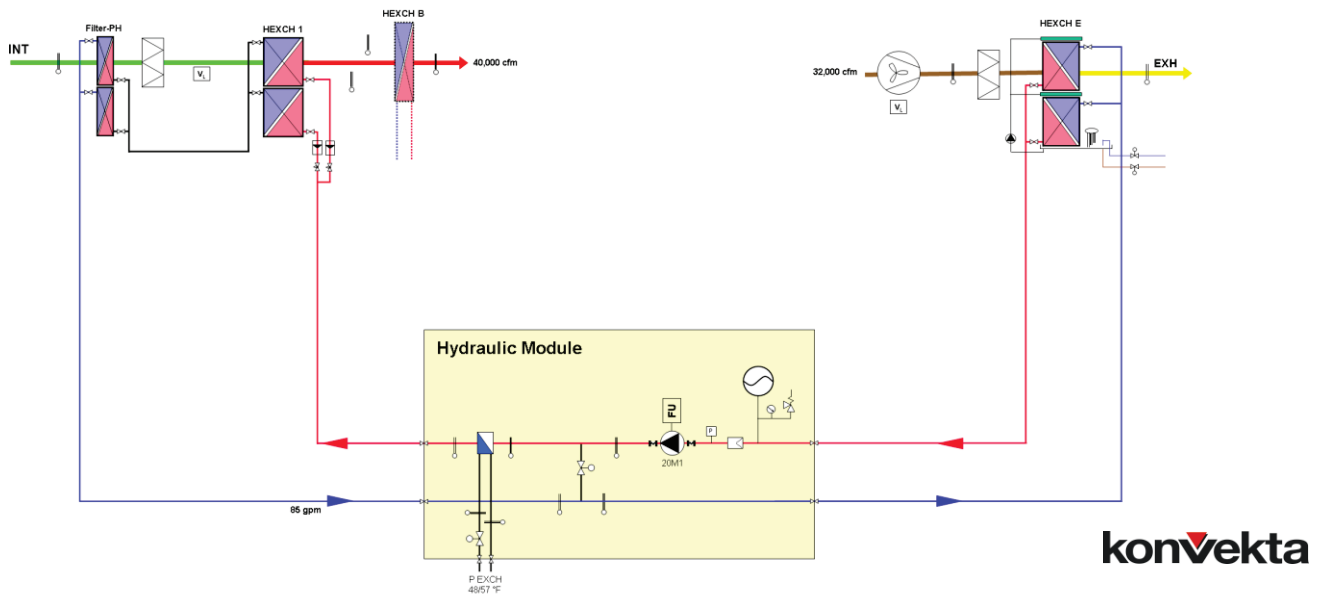
ENERGY RECOVERY FOR HVAC SYSTEMS

High-Efficiency Run Around Energy Recovery Systems Reducing Energy Consumption up to 80%!

High efficiency energy recovery substantially reduces heating and cooling requirements associated with HVAC systems and allows downsizing of heaters and chillers because energy recovery systems reduce peak heating and cooling requirements.

konvekta guarantees the amount of energy recovered and will work with each individual customer to find the optimal solution, balancing energy cost savings and return on invested capital.

High-efficiency run around energy recovery system (RAERS)

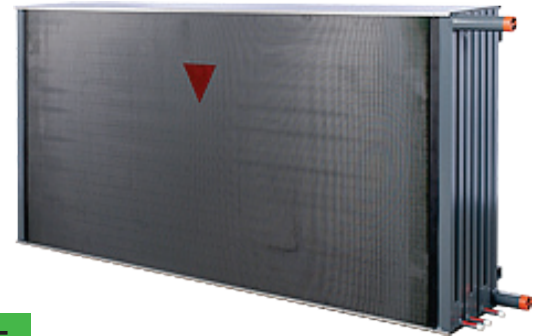
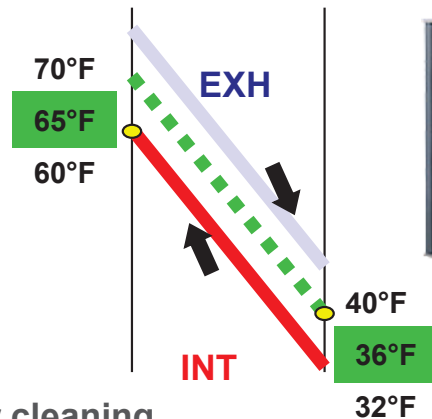


Advantages of RAERS:

- No Cross-Contamination of Intake and Exhaust Air
- Unrestricted Location of Intake and Exhaust
- Number of Intakes and Exhausts Variable
- High Energy Recovery Efficiency
- Existing HVAC-Systems Can Be Retrofitted
- Integration of Other/External Heat/Cold Sources

konvekta High-Efficiency Heat Exchanger

- Fin-tube heat exchanger with header at both ends
- Design with high heat-transfer factors
- Large overlap in exit temperatures
- Almost pure counter-flow
- Corrosion protected
- Entire depth accessible for cleaning



konvekta Hydraulic Module

- Water/Glycol pump, opt. redundancy pump
- Valves
- Plate Heat Exchanger(s) (additional heating, cooling, waste-heat recovery, Free-Cooling)
- Expansion tank with safety relief valve
- Wired, piped, factory tested



konvekta System Controller with Auto-reporting

Every second, the ER-System Controller measures the operating conditions and calculates on the basis of the performance maps of heat exchangers, pumps and valves the optimum operating parameters for pumps and valves.

It also takes into account the electrical power needed by the pumps.

- Controls the quantity circulated through the system to ascertain the optimum energy transfer
- Prevents freezing of condensate precipitating from exhaust air
- At interconnected systems (several air-intake and/or exhaust systems combined in one hydraulic circuit), water/glycol is distributed according to demand
⇒ ensures energy to be captured where available and distributed to where needed
- Controls heat/cold-input in water/glycol-circuit through plate exchangers
- **Verifies effectively recovered energy under actual operating conditions**
- Monitors & reports system performance, analyzes deviations, alerts to malfunctions
- Remote access to system performance data and system maintenance

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