NORTEK™
AIR SOLUTIONS

Accubloc™ Fixed Media Regenerative Energy Recovery System

POLYBLOC ACCUBLOC™

The Accubloc™ Fixed Media Regenerative Energy Recovery System is a sustainable heat recovery system manufactured by Polybloc AG. Offered by Nortek Air Solutions, the system features two or more energy storage banks specifically designed for use in air handling units that provide energy recovery capabilities of both sensible and latent heat.

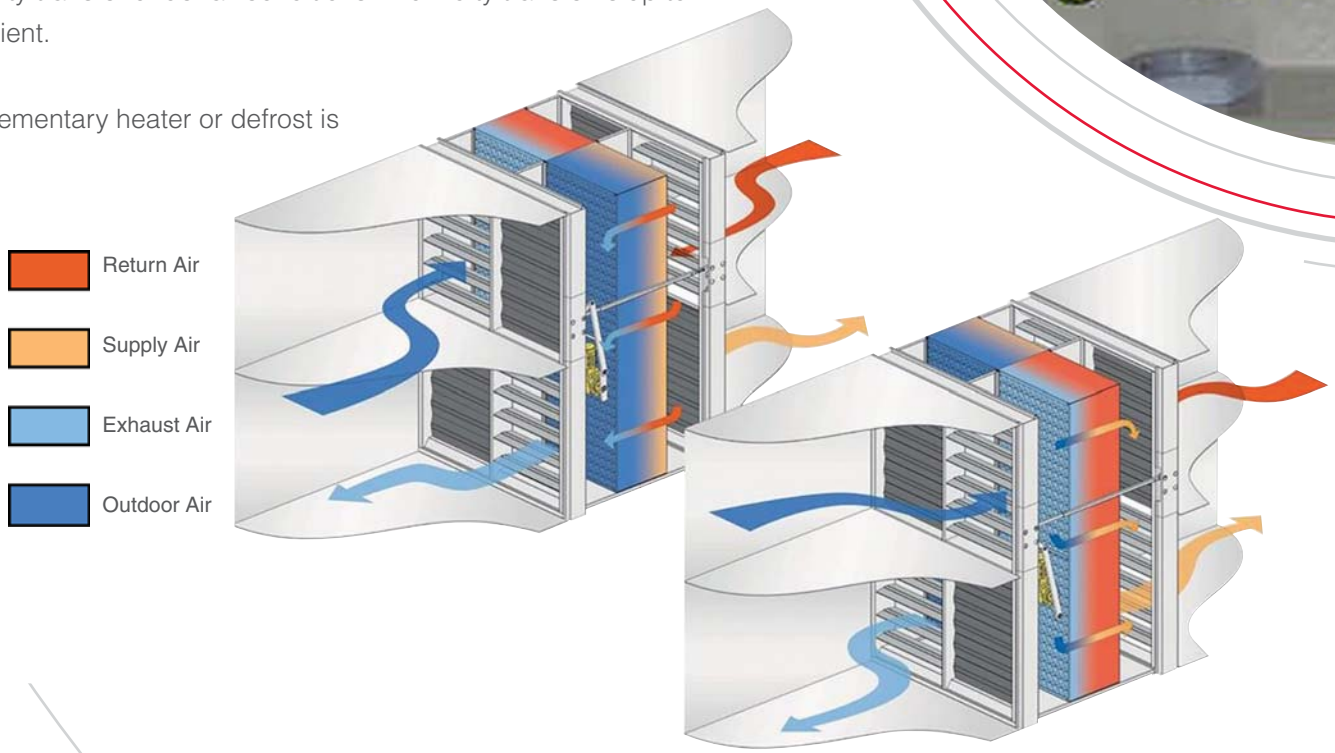
Regenerative Energy Recovery Process

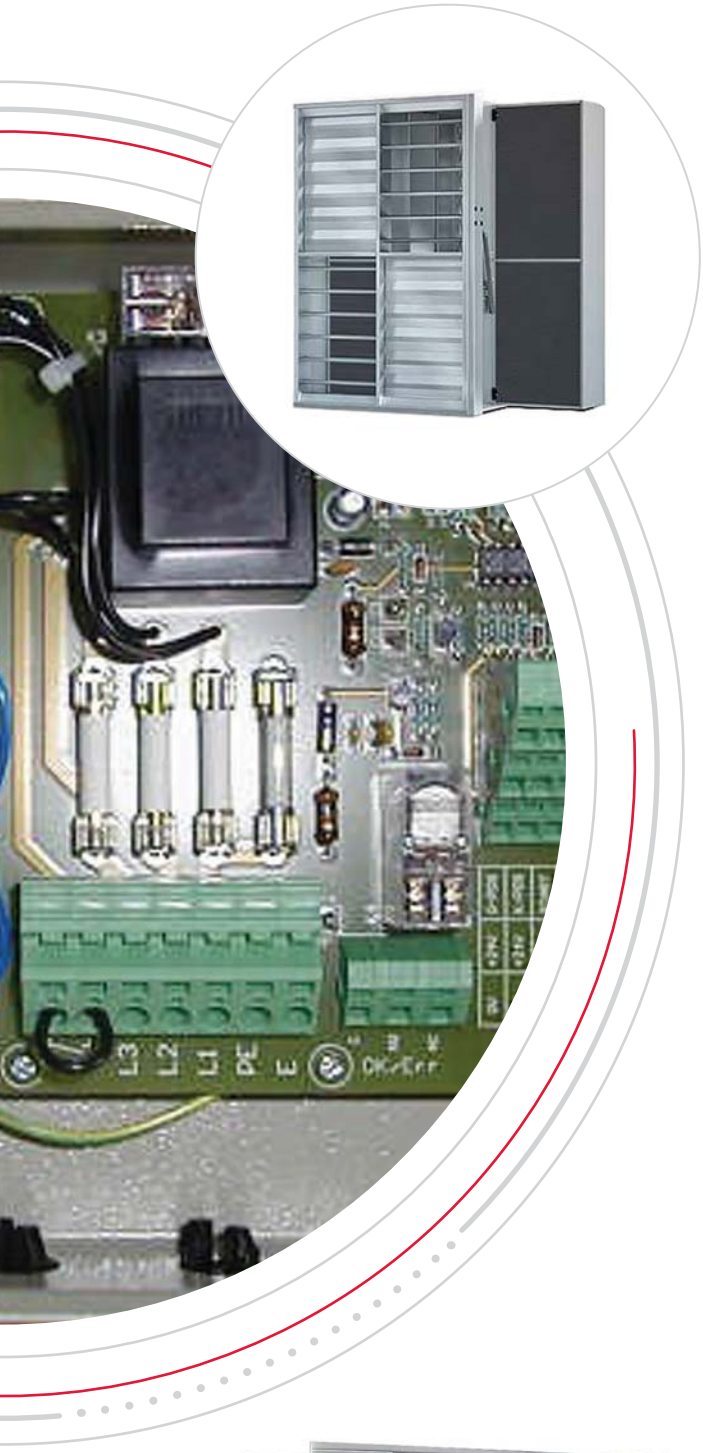
Operating at the highest energy transfer to 97%, a high-speed damper system alternates the air streams through stationary energy storage blocks. While one storage block is loaded (cooling of warm airstream), the other bank is unloaded (heating of cold airstream) to transfer the energy from one air stream to the other.

The orientation of the stationary energy storage blocks can be mounted vertically or horizontally, to allow for side-by-side or over/ under air flow configurations. The air that flows into the entering and leaving ducts always flows in the same direction. Only the air that flows through the energy storage banks is reversed, and not the air flows in the connecting ducts or plenums.

Humidity is transferred in cases when one of the airstreams cools below dew point, by re-evaporation of the condensate on the reverse air flow. The storage banks can be coated with a high-efficiency sorption coating for humidity transfer under all conditions. Humidity transfer is up to 85% efficient.

No supplementary heater or defrost is required.





Durable Construction and Efficient Energy Absorption and Transfer

The energy storage banks are constructed of honeycomb aluminum to allow for maximum contact with the air stream for efficient energy absorption and transfer with minimum pressure drop. The energy storage banks are fixed in place and can operate in temperatures ranges from -40°F to 250°F using standard aluminum and seals. The energy storage banks are capable of absorbing sound at 125-4KHz over 10 dBA, in accordance with EN 308. The energy storage banks are removable for cleaning using water and detergent.

The housing of the energy recovery can consist of galvanized steel, aluminum or Epoxy-coated aluminum. Stainless steel is available as an option.

Features and Benefits

- Programmable controller to optimize the energy recovery at all levels of operation
- LED indicators
- BAS 0-10Vdc external control signal
- Aluminum high-speed dampers with bearings and drive mechanism capable of 1 million cycles per year
- Six different energy storage banks, selectable for efficiency versus pressure drop
- Exact individual dimensions to fit AHU requirements
- 97% sensible and 85% latent efficiencies
- Category 3 leakage rating

Sustainability

All components used in the construction of the Accubloc™ unit consist of natural and 100% recyclable materials. No exotic materials, chemicals or rare earth elements are used. The energy exchangers must be constructed in a sustainable way, producing no hazardous effluent or unrecyclable waste, and designed to minimize waste in the production process.

Specifications and illustrations subject to change without notice and without incurring obligation.

Accubloc™ is a trademark of Polybloc AG.

NORTEK™ AIR SOLUTIONS

www.nortekair.com
nortekairinfo@nortek.com

557F-0120