

Vemco Introduces Tempeff North America

Tempeff North America products employ Dual Core™ regenerative technology that offers up to 95% temperature efficiency. Other available technologies offer a maximum of approximately 50% to 75% efficiency under ideal circumstances, and much lower real effectiveness in colder temperatures due to frost. The Dual Core™ design is significantly more energy efficient in all conditions, thus payback periods are extremely attractive.



For more information,
contact your local Vemco
Sales Team Member. Direct
Dial extensions found on our
website homepage

www.vemcoinc.com



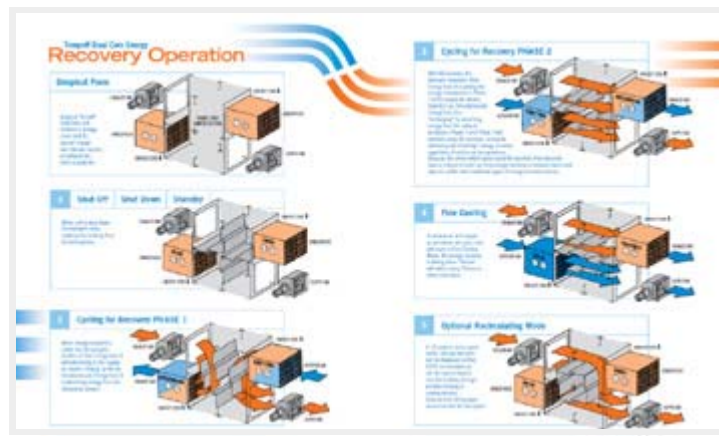
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Technology - How It Works

The Dual Core™ system employs two energy cores that deliver extremely high, frost resistant energy recovery. The basic operation is as follows:
(please click on the image below for a full size graphic representation)

A typical Tempeff Dual Core™ unit contains 2 energy cores (A & B), special change over damper section, an exhaust fan, and a supply fan.



1. When a unit is shut down, the dampers close, isolating the building from the atmosphere.
2. When energy recovery is called for, the dampers position so that Energy Core A will add energy to the supply air stream, heating up the air. Simultaneously Energy Core B is absorbing energy from the exhaust air stream.
3. After 60 seconds, the dampers reposition. Now Energy Core B is adding the energy it reclaimed in Phase 1 to the supply air stream, heating it up. Simultaneously Energy Core A is “recharging” by absorbing energy from the exhaust air stream. Phase 1 and Phase 2 will alternate every 60 seconds, constantly delivering extremely high energy recovery regardless of outdoor air temperatures. Because the cores switch cycles every 60 seconds, frost does not have a chance to build up, thus energy recovery is constant day in and day out, unlike other traditional types of energy recovery devices.
4. If exhaust air and supply air are above set point, unit will revert to Free Cooling Mode. No energy recovery is taking place. Damper will switch every 3 hours to clean core faces.
5. In off peak or unoccupied mode, internal dampers can be bypassed so that 100% re-circulated air can be used to heat or cool the building through ancillary heating or cooling devices. External shut off dampers recommended for this option.