

CompleVent[®]

High-Efficiency Energy-Recovery Ventilators and Dehumidifiers



*Economical, Flexible, Advanced Performance
Ventilation and Dehumidification for Healthy IAQ*



CompleVent – the Energy Conserving, Cost-Efficient Way to Meet ASHRAE Standards

Today's focus on indoor air quality poses new challenges for engineers, contractors, and building owners. Finding a ventilation system that meets ASHRAE Standards 62 and 90.1, while staying within budget, can be a real challenge. The CompleVent line of energy recovery ventilators is the solution you're looking for.

CompleVent can provide the ventilation and dehumidification required by ASHRAE Standard 62, while minimizing operating costs. Air-to-air energy exchangers used by the CompleVent serve to reduce loads on heating and cooling systems. Six different CompleVent designs are available to meet a variety of applications based on climate and function. Because of its efficient energy recovery technology, CompleVent can provide the fresh air required for a healthy indoor environment with minimal increase in your energy bill.

Better Engineering Provides Maximum Efficiency

Using Des Champs' cutting-edge technology, each CompleVent model is designed for maximum performance and efficiency.

- Counterflow air path maximizes energy exchange.
- Des Champs' Thermo-Wheel energy exchanger, constructed with corrugated media and molecular sieve desiccant, provides maximum transfer of both sensible and latent energy and with minimal cross-contamination.
- Des Champs' Thermo-Pipe is the industry's finest, constructed of extruded aluminum with integral fin and fill valves to accommodate future refrigerant enhancements.
- Double-width, double-inlet blowers with heavy-duty shafts and bearings provide quiet and efficient operation.
- High-efficiency fan motors with permanent-lube ball-bearings for long life and no maintenance.
- ARI Standard 1060 certification guarantees that Des Champs' Thermo-Wheels and Thermo-Pipes are stringently tested for effectiveness, pressure drop, and cross-contamination.
- Designed and manufactured by Des Champs Technologies' ISO 9001:2000 certified design, manufacturing, and service teams.
- ETL listed and labeled for ensured safety.

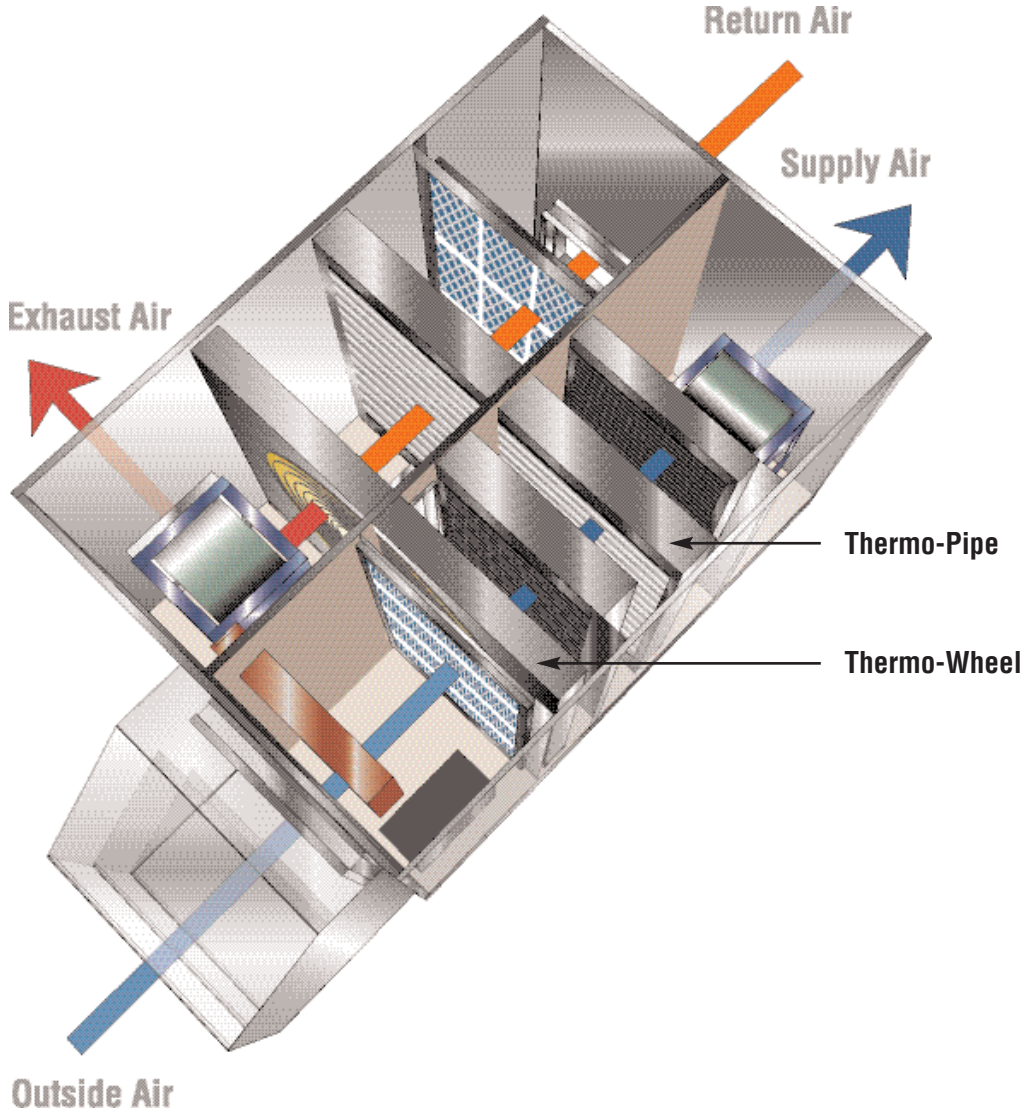
A Multi-function System that Pays for Itself

CompleVent's energy-recovery technology captures heat or cooling from the outgoing exhaust air and transfers that energy to the incoming fresh air. This means that the incoming fresh air is pre-cooled (and dehumidified in the summer) and pre-warmed (and humidified in the winter)*. Some of the energy-saving benefits of CompleVent include:*

*Thermo-wheel only

- Recovers up to 75% of energy in exhaust air.
- Typically recovers first-costs in three years or less.
- Provides efficient transfer of sensible energy or sensible and latent energy for year-round energy savings.
- Pre-conditions outdoor air, dramatically reducing the size and capacity requirements of the heating and cooling system.
- Includes a variety of options to meet many needs.

CompleVent Model CWT



Easy Installation Reduces Labor Costs

CompleVent ventilators are compact and easy to install and maintain.

- CompleVent is factory-assembled, tested, and shipped ready to install, so there's no complicated, expensive installation process.
- Heavy-duty lifting lugs for safe and easy installation.
- Self-flashing unit baseframe for easy, water-tight roof curb mounting.
- Shipped with your choice of end or bottom duct connections to fit your specific installation needs.
- Single-point electrical connection with optional disconnect switch.
- Easy-to-open access panels facilitate unit maintenance.

Durability That Stands Up to the Elements

Each component of the CompleVent is designed for a long operating life.

- Formed, galvanized-steel frame provides strength while minimizing weight.
- Heavy-gauge, galvanized-steel casing will withstand the elements.
- Unique intake hood design keeps out rain.
- Thermo-Wheels are corrosion-resistant and will not degrade from use or routine cleaning.
- Rotary heat exchanger polyester brush seals minimize air leakage.
- Closed-cell polyurethane insulation underfloor.
- Gasketed access panels keep out rain and snow.

Ventilation and Dehumidification for Building Occupants

The CompleVent line of energy recovery ventilators helps keep building occupants healthier by providing plenty of fresh outdoor air to dilute and flush out volatile organic compounds, carbon dioxide, and other indoor contaminants. CompleVent dehumidification systems minimize the potential for mold and mildew to grow.

- CompleVent can provide a four-fold attack against air pollutants by ventilating, filtering, controlling humidity, and regulating air pressure.
- CompleVent includes a recirculation option for unoccupied mode heating, cooling, and dehumidification.
- CompleVent's energy-recovery technology allows heating and cooling systems to run more efficiently and provides a healthier climate for the building's occupants all year.
- CompleVent dehumidifiers control summer humidity levels, providing a more comfortable environment.

Controlling Your Climate

Based on the model and options selected, Des Champs' knowledgeable engineers will choose the right controls to provide easy installation, operation, and maintenance of your CompleVent.

- Factory-mounted controls provide proven, reliable operation.
- CompleVent offers optional controls that are fully compatible with open protocols to allow full integration with existing building-wide control systems.
- Many control options are available, from electro-mechanical to full DDC.

Des Champs' Commitment to Excellence

Des Champs' team of dedicated sales engineers is ready to guide you through each step of your ventilation/dehumidification project.

- Des Champs' sales group is 100% staffed by experienced engineers, ready to answer your technical questions.
- Our engineers will help you determine your ventilation and dehumidification needs.
- Our engineers can provide you with a customized payback analysis, so you can see how quickly your new CompleVent will pay for itself.
- Des Champs engineers will ensure that the CompleVent you purchase is configured for your needs.

We Strive for Excellence---Our Customers Deserve Nothing Less

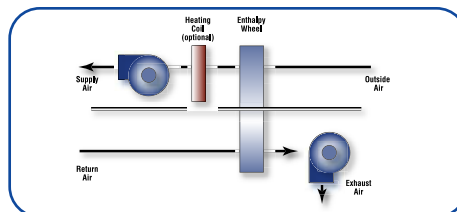
For over 30 years, Des Champs Technologies has led the air conditioning industry, providing premium-quality energy-recovery, dehumidification, and precision air-conditioning equipment. Des Champs Technologies has earned industry recognition and customer loyalty by providing innovative, pre-engineered, fully tested solutions at an economical cost.

At Des Champs, our reputation for excellence is built upon our comprehensive service package: quality products, superior training, and an unprecedented extended warranty. When you purchase a product from Des Champs Technologies, you are assured of years of efficient, trouble-free performance.

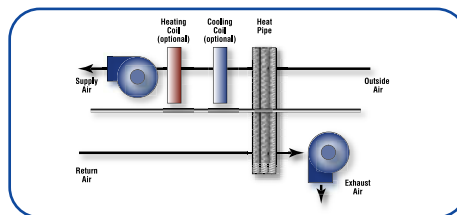
Six Unit Configurations to Meet Your Specific Needs

CompleVent has a model to suit your needs based on climate and function. Six different designs with many available options ensure that you get the system that's right for you. All models are available in a range of capacities from 500 SCFM to 10,500 SCFM, to provide the most efficient and cost-effective solution to meet your needs.

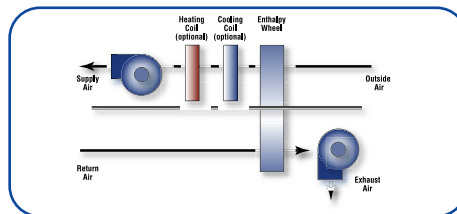
--- **Model CVT** (total energy recovery with optional heating) is a basic Energy Recovery Ventilator, designed for delivering pre-conditioned outdoor air to conventional heating and cooling systems, or directly into the building in non-humid climates. The CVT uses a Thermo-Wheel to transfer both sensible and latent energy for maximum savings. The CVT is available with hot water or electric heating coils.



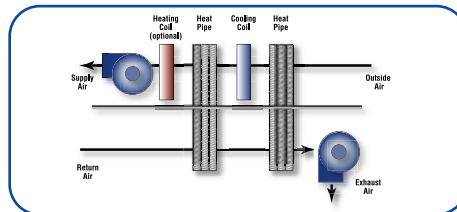
--- **Model CBS** (sensible energy recovery with optional heating and cooling) provides pre-conditioned air to the building or to the heating and cooling system. The Thermo-Pipe in the CBS provides efficient, passive, low maintenance heat exchange, reducing heating and cooling costs. CBS is available with DX or chilled-water cooling, and hot water or electric heating coils.



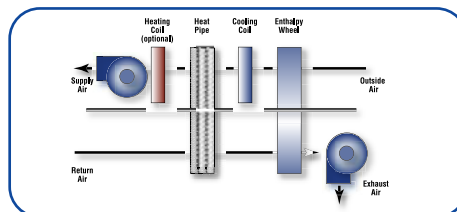
--- **Model CBT** (total energy recovery with optional heating and cooling) is ideal for humid climates, where latent energy loads are great. The CBT is excellent for supplying filtered, tempered outdoor air to the building or to the heating and cooling system. The CBT uses a Thermo-Wheel to capture both sensible and latent energy for even greater cost reduction. CBT is available with DX or chilled-water cooling, and hot water or electric heating coils.



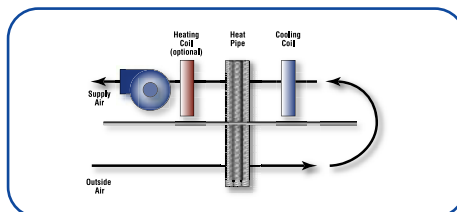
--- **Model CWS** (sensible energy recovery and dehumidification) combines the energy-saving technology of the CBS with a second Thermo-Pipe for reheating the cold air leaving the cooling coil, while simultaneously pre-cooling the return air prior to the heat recovery Thermo-Pipe. The CWS provides year-round energy recovery and highly efficient summertime dehumidification. CWS is available with DX or chilled-water cooling, and hot water or electric heating coils.



--- **Model CWT** (total energy recovery and dehumidification) combines the Thermo-Wheel technology of the CBT with a second Thermo-Pipe for reheating the cold air leaving the cooling coil, while simultaneously pre-cooling the return air prior to the heat recovery Thermo-Wheel. The CWT provides the highest possible levels of year-round energy recovery and summertime dehumidification. CWT is available with DX or chilled-water cooling, and hot water or electric heating coils.



--- **Model CWB** (dehumidification) provides efficient dehumidification of outdoor air using a pre-cool and re-heat Thermo-Pipe. CWB is available with multiple cooling and heating options. **Available Fall 2005**



CompleVent Components and Options

Each of the six CompleVent models can be customized with a variety of options.

		Model					
		CVT	CBS	CBT	CWS	CWT	CWB
Standard Components	Energy Wheel HX	•		•		•	
	Heat Pipe HX (Pre-cool/Reheat)		•		•	•	•
Optional Equipment	Cooling Coil		•	•	•	•	•
	Reheat Coil	•	•	•	•	•	•
	Preheat Coil (Electric)	•	•	•	•	•	•
	Recirculation Damper*	•	•	•	•	•	•
	Permanent Metallic Filters**	•	•	•	•	•	•
	Outdoor Air Shut-Off Damper	•	•	•	•	•	•
	Exhaust Air Shut-Off Damper	•	•	•	•	•	
	Outdoor Air Hood	•	•	•	•	•	•
	Exhaust Air Hood	•	•	•	•	•	

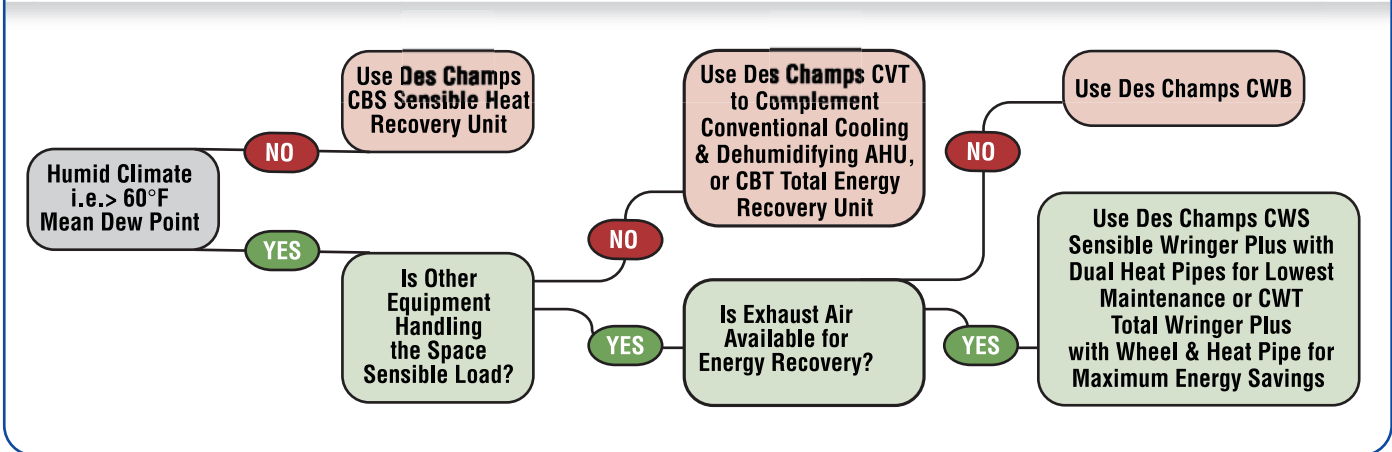
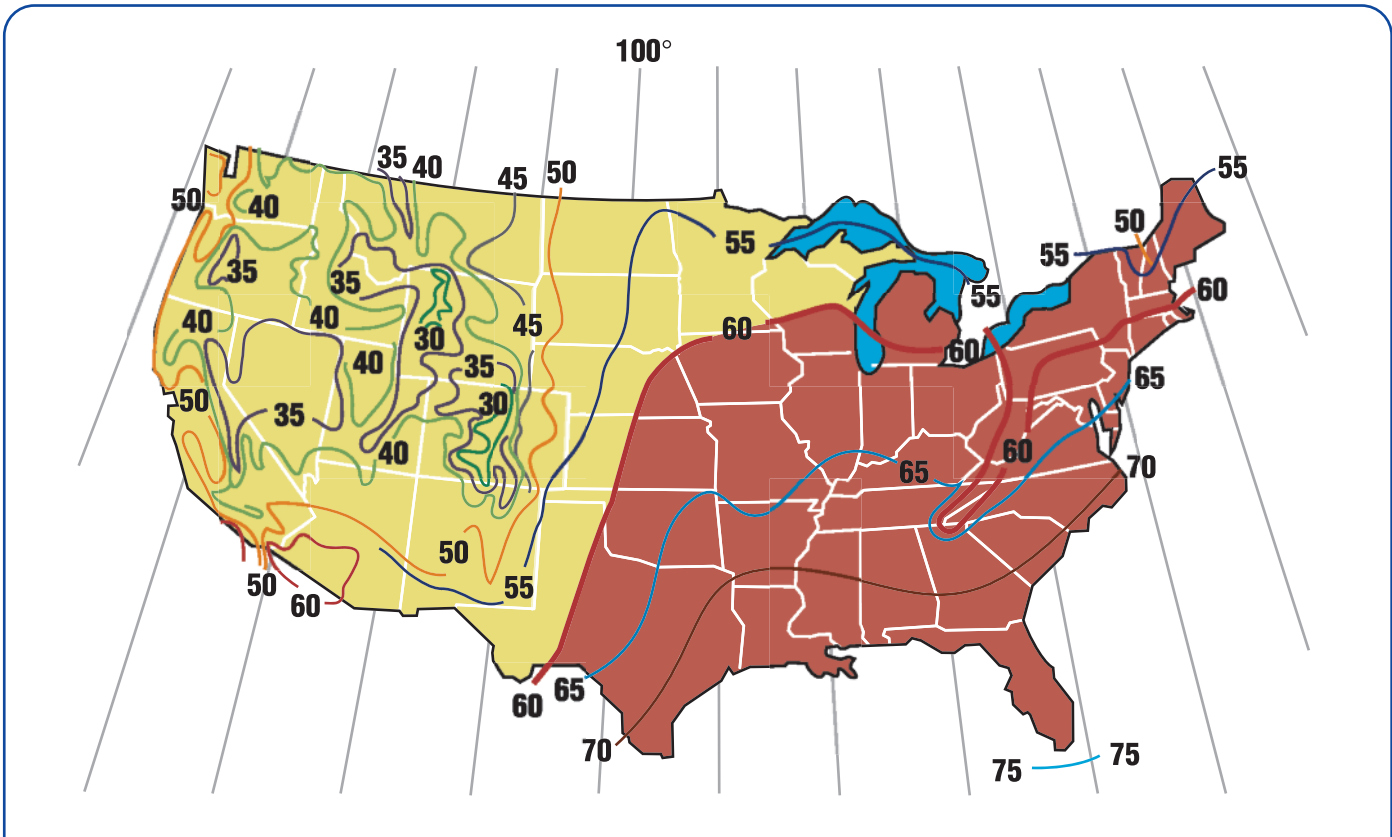
* Available for unoccupied or defrost mode.

** May be added to O/A hood; not available in place of pleated.

Notes:

1. Thermo-Pipe: 6 rows maximum.
2. Cooling Coil: 8 rows maximum, DX or chilled water.
3. Heating Coil: Electric or hot water (2 rows maximum)
4. The recirculation damper must be two-position: 100% outdoor air or 100% recirculation air.

Mean Dewpoint Reference Map



DES CHAMPS PRODUCTS

45 NB School Rd. • PO Box 220 • Natural Bridge Station, VA • 24579
 540.291.1111 • Fax 540.291.2222 • marketing@des-champs.com • www.deschamps.com

