PROJECT REFERENCE

SEMCO Exclu-Sieve® energy recovery system for the 1100 Peachtree Street building in Atlanta

The Eleven Hundred Peachtree Street building in Atlanta, USA, is 28 stories tall, with 618,000 square feet of space. The SEMCO unit's generous ventilation, combined with moisture removal, not only improves indoor air quality but also saves energy and reduces operating costs in the building.

FACTS

Customer:
The Eleven Hundred Peachtree Street building in Atlanta, USA.

Need:
Energy efficient ventilation solution, Excellent indoor air quality.

Solution:
SEMCO Exclu-Sieve® energy recovery wheels.

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Improved Indoor Air Quality and reduced operating costs

The Eleven Hundred Peachtree Street building in Atlanta is 28 stories tall, with 618,000 square feet of space. Commercial tenants occupy all floors, with about 80% of the space being occupied by building owner BellSouth and a law firm. The building has no smoking areas and it has been occupied since 1990.

After the Eleven Hundred Peachtree project was under way, the building owner wanted to advertise that the building closely matched the new ASHRAE ventilation standard

Tim Crawford, Thermal Recovery Systems, was then working as Engineering Manager for Rosser Fabrap International, which designed the building's HVAC system.

"Originally, we designed the building for ten cfm per person," says Crawford. "Fortunately, we were able to change the design and raise the outdoor air to about seventeen cfm per person, so we brought the building into immediate compliance. The original equipment selection had relatively low air volumes for the equipment capacity, so we were able to raise the amount and pump in more outdoor air without changing the equipment selection."

To increase ventilation, a total energy recovery unit was installed, a SEMCO Exclu-Sieve® system that provides 52,000 cfm of outdoor air. Each building floor has variable-air-flow (VAV) air handling units, and the system exhausts about 31,000 cfm of return air from the toilet areas.

The SEMCO unit uses a desiccant-based energy recovery wheel to "pre-condition" ventilation air before it enters the VAV air handlers, primarily by removing moisture from Atlanta's hot, humid outdoor air. The HVAC system also incorporates two 800-ton Carrier electric centrifugal chillers and all-electric heating.

David Walker, the Facility Manager at Eleven Hundred Peachtree, says, "The reliability of the energy recovery system has been excellent since the building was built. It works as if it is still brand-new."

The SEMCO unit's generous ventilation, combined with moisture removal, not only improves indoor air quality but also saves energy and reduces operating costs. The total energy savings are over $51,100/year.

David Walker concludes, "It's a tremendous energy-saver and it does a wonderful job of decreasing the latent load. The building's energy consumption is only about $1.01 per gross square foot and that's just excellent."

SEMCO
SEMCO is a unique indoor environment products manufacturer serving the key disciplines of air distribution, noise abatement, temperature, and humidity control in the commercial and industrial building markets. SEMCO was acquired by Fläkt Woods in 2007.

Fläkt Woods Group
Fläkt Woods is a global company providing solutions for ventilation and air treatment for buildings as well as fan solutions for Industry and Infrastructure applications.

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