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IMMEDIATE RELEASE

**SEMCO UNVEILS THE FIRST
INTELLIGENT VENTILATION SYSTEM**

On January 1, 2000, SEMCO Incorporated of Columbia Missouri, will be unveiling the next generation of ventilation systems. PINNACLE™ Primary Ventilation System, as it is known, is being labeled as the first intelligent ventilation system of its kind.

“The time has come for intelligent engineering,” says Mike Boles, Product Manager for the Desiccant Wheel Products division. “Until now, engineers and designers were forced to choose between designing a system to control a building’s peak temperature or its peak humidity. Designing for both was difficult, inefficient, and expensive,” says Boles. “PINNACLE™ is a totally new concept, it handles temperature, ventilation and humidity all in one package – it’s truly intelligent.”

Current and past practices reveal the trade-off between designing a comfort conditioning system to control a building’s temperature peak or its humidity peak. Controlling for both presents a significant HVAC design challenge. This challenge is further increased in hot and humid climates since maintaining fresh air ventilation rates and relative humidity at levels recommended by the ASHRAE Standard 62-1999 is difficult and costly if conventional HVAC approaches are used.

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The PINNACLE™ system allows you to control for both temperature and humidity. It continuously delivers fresh outdoor air, while simultaneously controlling humidity levels as recommended by ASHRAE, even at part-load conditions.

In fact, PINNACLE™ is capable of providing a very high degree of latent cooling using only a minimum amount of conventional cooling input:

A 10,000 cfm PINNACLE™ system can provide as much as 50 tons of latent capacity (68 tons of total capacity) with only an input of 32 tons of refrigeration.

Using the conventional over cooling approach would require a 15,000 cfm system with 90 tons of refrigeration plus additional reheat energy to deliver the same performance.

The key to providing the exceptional dehumidification capability provided by the PINNACLE™ system is the development of a new passive dehumidification wheel. Unlike anything before, this revolutionary wheel requires no high temperature regeneration source. It utilizes a desiccant material that is optimized to remove moisture from a saturated air stream.

With this new technology, PINNACLE™ can provide very dry outdoor air in an extremely energy efficient manner by (1) utilizing the conventional cooling technology in its most efficient performance envelope, (2) using the total energy recovery wheel in its most efficient envelope, and (3) combining the two with the “passive” dehumidification wheel operating in its most efficient envelope. The result is minimal cooling energy input and maximum latent cooling output.

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The PINNACLE™ system is comprised of a supply fan, an exhaust fan, a total energy wheel, a cooling coil, and a passive dehumidification wheel. The total energy wheel is used to precondition fresh air using the exhausted building air. The cooling coil and passive dehumidification wheel work in concert to further treat this fresh air stream to produce room temperature air at a much reduced humidity level.

PINNACLE™ intelligently responds to various combinations of temperature and humidity by modulating the passive dehumidification wheel and the cooling coil. Therefore, PINNACLE™ can provide a constant stream of optimally conditioned ventilation air while exhausting a building's stale, polluted air. It does so in a highly efficient manner, providing substantial operating savings by eliminating the need for traditional over-cooling and reheat systems. Equally important, by optimizing the condition of a building's fresh air supply, PINNACLE™ reduces the demand for overall heating and cooling capacity.

The PINNACLE™ system provides the most cost effective solution to the dilemma facing designers as a result of ASHRAE 62-1999; providing continuous ventilation while controlling humidity at any operating condition. PINNACLE™ offers the flexibility to consider whole new design schemes as a result of its ability to provide very dry outdoor air in a straight forward, simple, energy efficient manner.

SEMCO Incorporated is a privately held corporation founded in 1963 dedicated to developing and producing high quality, cost-effective products and services that improve indoor environments. The company's major product lines include: acoustic

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panels and sound attenuators; desiccant and heat recovery wheels; packaged ventilation equipment; intelligent ventilation systems; and spiral, round, and oval duct.

For more information on the all new PINNACLE™ Primary Ventilation System, contact:

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