

ConsERV™ Ventilation for Restroom Applications

Executive Summary

ConsERV™, a pioneering Energy Recovery Ventilation (ERV) solution, provides advanced fixed-plate systems specially optimized for restroom applications. ConsERV™ systems are particularly adept at managing odors and humidity, thanks to its innovative Aqualyte™ nanomaterial, the system ensures exceptional efficiency in air filtration and humidity control while preventing the crossover of pollutants and odors into the fresh air. This not only elevates the quality of air but also optimizes temperature and humidity, enhancing comfort in restroom environments. This is complemented by its proven track record of delivering significant energy savings and a rapid return on investment, typically within two years or less.

Key benefits of the ConsERV™ system in restrooms include:

- Achieving up to 80% total effectiveness in air energy recovery, ConsERV™ significantly reduces HVAC energy usage. This efficiency leads to considerable cost savings, potentially offering immediate payback in some instances.
- The system plays a vital role in reducing the carbon footprint of buildings. By enhancing energy efficiency, it decreases the overall energy consumption, which directly leads to lower CO2 emissions.
- The Aqualyte™ technology in ConsERV™ ensures optimal ventilation, effectively managing restroom-specific air quality challenges.
- Beyond its benefits, ConsERV™ aligns with the growing emphasis on eco-friendly and sustainable building practices.

Overall, the ConsERV™ system represents a significant advancement in restroom ventilation applications. Its integration of Aqualyte™ nanomaterial addresses critical aspects such as odor and humidity control, thereby improving air quality and user comfort. Its effective energy recovery capabilities lead to substantial HVAC energy savings, making it a profitable ROI. Moreover, ConsERV™ contributes to reducing the carbon footprint and enhancing sustainable development makes it an addition to all buildings seeking efficient and environmentally friendly ventilation solution.

ConsERV™ Technology

Leveraging the breakthrough Aqualyte™ nanomaterial, ConsERV™ ensures high efficiency in ventilation while strictly separating air streams to prevent the crossover of pollutants and odors. The air is not only filtered but also optimizes temperature and humidity levels, enhancing comfort and air quality. With a proven track record of over twenty years in diverse climates and

ConsERV™

settings, ConsERV™ offers significant energy savings and rapid return on investment usually within 2 years or less, making it an ideal choice for eco-conscious and cost-effective bathroom ventilation solutions.ⁱ

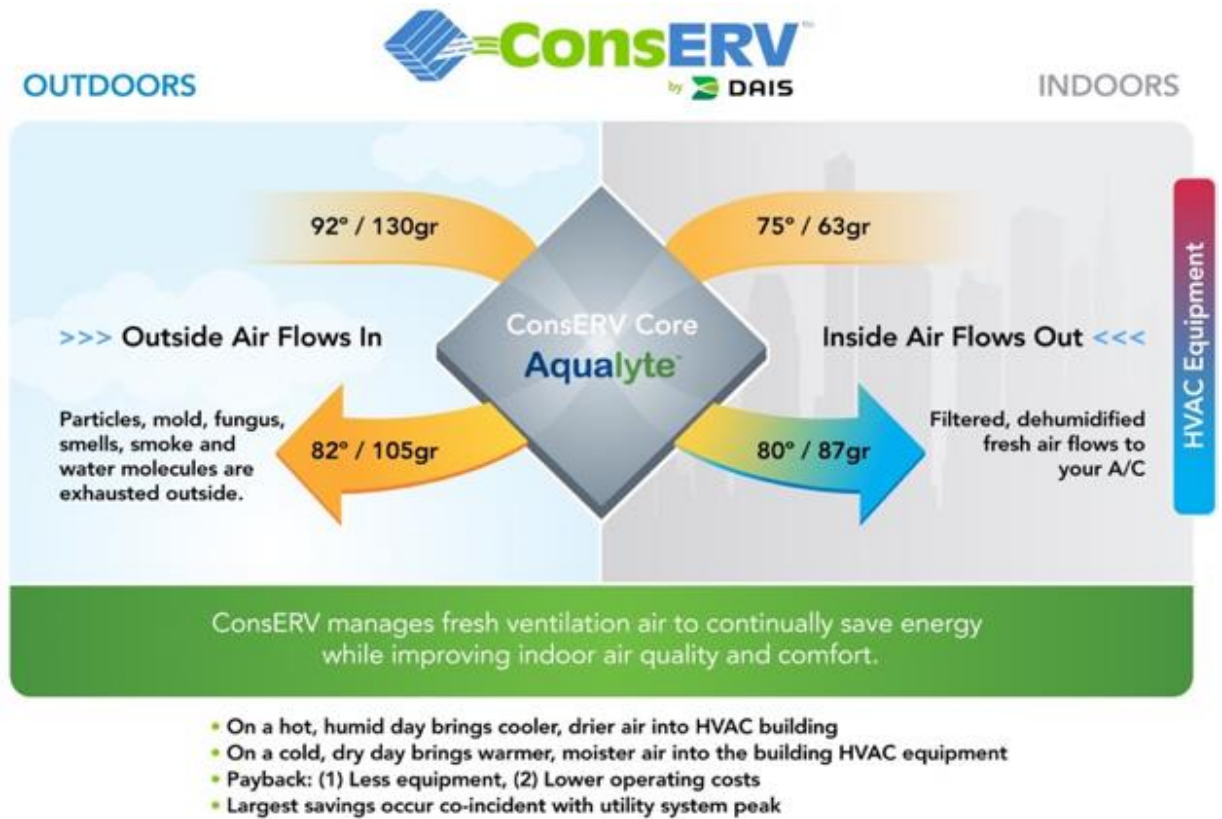


Figure 1: Detail of ConsERV Core with Aqualyte

In restroom applications, ConsERV™ systems excel by addressing the unique challenges of humidity control, odor management, and air filtration. Leveraging its advanced features in the innovative Aqualyte™ nanomaterial. The system effectively prevents the crossover of contaminants and odors, ensuring only pure water molecules are transferred. This results in significantly improved air quality and comfort in restroom environments. The energy efficiency of the ConsERV system is particularly beneficial in restrooms, where consistent ventilation is crucial. It reduces operational costs and contributes to a sustainable approach to building management. The ConsERV system in restrooms not only enhances the user experience through superior air quality and comfort but also aligns with the increasing demand for eco-friendly and cost-effective solutions in modern building design.

Benefits of ConsERV™ for Restroom Exhaust

Integrating the ConsERV™ system in restroom applications offers unique benefits in terms of energy efficiency, environment impact and financial savings. Designed for specific air



quality challenges as seen in restrooms, such as managing odors and humidity, ConsERV™ utilizing its advance Aqualyte™ technology to ensure optimal ventilation. While managing the challenges of restroom air quality, ConsERV™ can achieve over 80% total effectiveness in air energy recovery, leading to a significant reduction in HVAC energy usage.ⁱ This efficiency leads to significant cost saving on the overall HVAC systems. In certain instances, the savings from ConsERV™ can lead to in immediate payback, making a financially sound and environmental conscientious choice for restroom ventilation applications.

The ConsERV™ system offers significant environmental benefits, notably in reducing the carbon footprint of buildings. By optimizing energy efficiency in ventilation, ConsERV substantially lessens the demand on HVAC systems, leading to a marked decrease in energy consumption. This reduction directly translates to lower carbon dioxide emissions, contributing significantly to combating climate change. Furthermore, the system's advanced filtration capabilities ensure a minimal environmental impact by preventing the spread of pollutants and contaminants. Beyond carbon footprint reduction, ConsERV contributes to overall environmental sustainability by promoting better air quality and supporting green building practices. These attributes align with the growing global emphasis on eco-friendly and sustainable development, making ConsERV™ not just a practical solution for energy recovery and restroom ventilation, but proactive solution to help reduce overall environmental impact for buildings.

The ConsERV™ system represents a significant advancement in restroom ventilation technology. By integrating the Aqualyte™ nanomaterial, it addresses challenges such as odor and humidity control, improving air quality and comfort. Its energy recovery capabilities result in notable HVAC energy savings and a rapid return on investment, often within two years or less. Additionally, ConsERV™ contributes to reducing the carbon footprint of buildings, aligning with sustainable development goals. Its effectiveness in enhancing air quality and supporting green building practices makes it a valuable addition to any building seeking efficient, eco-friendly ventilation solutions.

ⁱ Calculation based on energy savings and energy cost of 12 cents per kWh.

ⁱⁱ Performance calculation per AHRI certified selection tool