

Advantix Systems Breakthrough Salt-Water Technology Helps Businesses Achieve Energy Efficiency and Drive Economic Growth

Summary

Advantix Systems provides a cost effective, energy efficient, clean energy solution that is transforming how commercial and industrial businesses consume energy. Based on the physics of the Dead Sea, Advantix Systems' liquid desiccant technology uses salt water to eliminate humidity, cool the air and reduce energy consumption by 30-80%. The technology has been proven to reduce operating expenses by 30-40% compared to conventional air conditioning systems for both commercial and industrial customers. Key customers include Kraft Foods, P&G, Hilton Hotels, GlaxoSmithKline, Teva Pharmaceuticals and many others around the world.

Reducing Energy Use in the Built Environment

In the United States, the built environment accounts for 70% of all energy consumption, an annual spending of more than \$200 billion for commercial and industrial facilities. Heating, ventilation and air conditioning (HVAC) is typically the largest, single-most energy consuming system, responsible for one-third of total energy use in these settings. It is also a major source of harmful emissions. Advantix Systems' innovative, clean tech HVAC technology reduces energy use in commercial and industrial facilities by 30-80%.

Breakthrough Salt Water Technology

Advantix Systems' products utilize liquid desiccant, a non-toxic lithium chloride solution (similar to salt water) that removes humidity from the air while cooling it at the same time. Like the Dead Sea, the salt in the lithium chloride solution naturally extracts moisture from the air and removes humidity. Removing the humidity is important because conventional air conditioners have only one way to squeeze the humidity out of the air that they cool: by chilling the air to 52 degrees or even lower so that it reaches the dew point and the water condenses and drains. The remaining air is then excessively cold and must be reheated to a comfortable level a wasteful and energy-intensive step that Advantix Systems' technology eliminates. The salt water also acts as a natural disinfectant and improves indoor air quality by removing approximately 90% of airborne microorganisms and 80% of particulates (larger than 5 microns) in a single pass. Advantix's products can be powered by renewable energy such as solar and geothermal sources, and can use waste heat from co-generation systems and many other sources that can be found in abundance in industrial facilities.

Customer Results

Advantix's top five worldwide customers are Kraft Foods, Procter & Gamble, GlaxoSmithKline (GSK), Panduit and Teva Pharmaceuticals. Cadbury Adams, a division of Kraft Foods Inc., improved its air conditioning system for a chewing gum production room by replacing a solid desiccant wheel dehumidifier with an Advantix Systems liquid desiccant unit. The unit enabled the facility to achieve 60% energy savings, while reducing humidity and lowering maintenance requirements. Another customer, Duty Free Americas, achieved an energy savings of more than 37% after installing an Advantix unit at its warehouse storage facility at the Miami International Airport, where it stores goods sensitive to heat and temperature, such as chocolates, tobacco and cosmetics. In addition, DFA saved thousands of dollars by avoiding product loss from water damage. Advantix Systems technology is deployed in more than 800 applications in commercial facilities and industrial manufacturers around the world spanning the pharmaceutical, food processing health care, electronics, dry storage and plastic molding industries, all of whom are turning to its innovative clean tech solution to meet their mission critical, dehumidification needs. Schools, condominiums, hotels and supermarkets are also taking advantage of this innovative technology to provide improved air quality while saving energy.

The company understands that merely providing a "green" product is not sufficient for meeting market demands today. For many Advantix customers, the value proposition of this technology comes in the form of sheer economics: low upfront costs, reduced energy consumption, and lower operating and maintenance costs. Advantix was recognized at the annual International Air-Conditioning, Heating and Refrigeration Exposition as the winner of AHR's Most Innovative Cooling Product for 2011, designating the technology as the HVAC innovation with the most substantial application, user value and market impact.