

CASE STUDY

Hotels & Resorts

Hotel Lowers Energy Costs While Maintaining Customer Comfort

THE PROBLEM

The Omni Resort at ChampionsGate is one of the nations premier golf, leisure, and meeting retreats with 720 guest rooms and suites located in the tourist capital of Florida, Orlando. Like many hotels in a humid climate, the Omni Resort not only has to cool the outside air to remove excess moisture, but they also have to reheat the air before discharging it into the corridors that lead to guest's rooms. This process generally avoids low temperature corridors which result in overcooled hotel guest's rooms with high humidity.



This system requires the use of electric heat strips that use a great deal of energy, but without the reheat of the air, the result would be cold and clammy corridors and guest rooms with poor Indoor Air Quality (IAQ). "The whole dehumidification system was designed around electric heat strips," said Director of Engineering, Mike Garrison. Although this method of moisture removal and reheat is somewhat effective, is not efficient.

SOLUTION



Custom Site Retrofit Wrap-Around Heat Pipes

A consulting engineering company recommended that the Omni consider retrofitting all outside air units with dehumidifier wrap-around heat pipes. After some research into the product, it was obvious that heat pipes were the best choice for the Omni Resort. Because heat pipes are passive and powered by difference in air temperatures, not electricity, they do not interfere with existing circuiting of the system and allow for substantial energy savings.

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RESULTS

Now, the Omni Resort at ChampionsGate is able to maintain the temperature and humidity levels of the air without the use of expensive electric heat strips. With the electric heat strips disconnected, the Omni Resort has seen a substantial savings in their cooling and reheat energy consumption.

Omni Resort at ChampionsGate was so pleased with the results that they have turned to Heat Pipe Technology, Inc. (HPT) for all of their dehumidification needs throughout the resort. HPT has worked with the Omni Resort since 2005, and continues to improve the resort with a total of 16 units, totaling 240,000 CFM, retrofitted in the past four years in three separate projects. These installations have a total annual savings of **over \$400,000**.



"The investment has definitely paid off and I would say that over the past couple of years, it's been well over a million dollars in savings. I would absolutely recommend Heat Pipe Technology to other hotels." – Mike Garrison, Director of Engineering, Omni Orlando Resort at ChampionsGate.