HEAT PIPE TECHNOLOGY

CASE STUDY

Colleges & Universities
Laboratories

Research Facility Avoids High Energy Costs

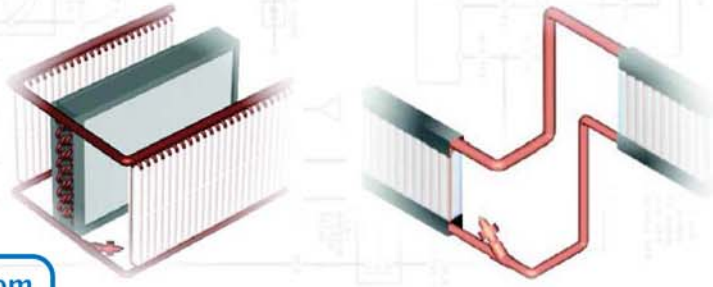
THE PROBLEM

In February of 2008, a major Florida university began construction of a new pathogen research facility. When designing this facility, engineers were faced with a challenging problem: creating a comfortable atmosphere by controlling humidity and temperature, and providing efficient energy recovery while preventing cross contamination. The need for controllability of the dehumidification system, coupled with the fact that the supply and exhaust air streams were not adjacent to one another, did not help the design crew.

THE SOLUTION

Heat Pipe Technology's Vertical Tube Dehumidification Heat Pipes (DHP-V) utilize the phase change of the working fluid to precool the outside air before entering the cooling coil and reheat the air after the cooling coil. This method allows for total controllability with one or two valves, yielding effective temperature control.

Contact **HPT™** at **info@heatpipe.com** to design with this product.



Split Passive Dehumidification and Energy Recovery Heat Pipes

Unlike traditional energy recovery systems, split passive heat pipes eliminate the risk of cross contamination between supply and exhaust air streams. These systems are completely customizable, allowing the engineers flexibility in their design of their air handling units. Moreover, this system transfers energy passively

THE RESULTS

While Heat Pipe Technology only installed 3 heat pipe systems, the estimated savings is astronomical! The facility is projected to save a total of **over $10,000** annually while running at *half capacity* with a potential savings of **over $14,000** at *full capacity* for the energy recovery heat pipes. The dehumidifier heat pipes are projected to yield an annual savings of **nearly $30,000**. Moreover, the heat pipe systems and other energy saving devices, will help the owner acquire a LEED Gold Certification for the facility.

In total, Heat Pipe Technology's installation of energy recovery and dehumidification heat pipes has resulted in an estimated annual savings **nearly $60,000**, yielding a simple payback of about **3 years!**