

Pathogen Research Facility at the University of Florida

Opportunity

In February of 2008, the University of Florida in conjunction with Emerging Pathogens Institute, began construction on the new 80,000 square foot Pathogen Research Facility. The research facility will provide both students and scientists with the ability to track and study emerging agents of disease that afflict plants, animals and humans.

As with all laboratories exhausting contaminated air, cross contamination of the air supply is not an option. Heat Pipe Technology has the right product that will transfer heating and cooling from the exhaust to the supply air without the risk of contaminating outside air. Moreover, HPT has dehumidifier heat pipes that will further reduce the air conditioning load and supply free reheat for these humidity sensitive laboratories.

Solution

Energy Recovery and Dehumidification Heat Pipes HRM-V & DHP-V

Three large air handlers were designed to handle the building's air conditioning needs. Two of the three A/C units, AHU-1 and AHU-2 were designed with the split passive heat recovery systems, HRM-V series, the third unit, AHU-3 had a fully controllable dehumidifier system, DHP-V series to precool the air thus reducing the load and then reheat the air to a more comfortable temperature.

Project Summary:

AHU-1, AHU-2: 30,000 CFM each

-Heat Pipe System: 6-row HRM-V each

-Projected Savings: \$7,500 each, \$15,000 for both units

AHU-3: 25,000 CFM

-Heat Pipe System: 4-row DHP-V, fully controllable dehumidifier heat pipe

-Projected Savings: \$33,000

Total annual savings for the whole project: \$47,000. The project has a simple payback of under five years.

*More over, the heat pipe systems will help the owner get LEED Gold Certification for the United States Green Building Council(USGBC).



For more info visit heatpipe.com

Case Study Laboratories