

## Buffalo General Hospital

## Medical Solutions in Action

Solutions for Energy Recovery & Dehumidification

### The Project:

Incorporate energy recovery Heat pipes into the HVAC system for a hospital located in Buffalo, where the average winter DB temp is 29-32F with average relative humidity of 85%. To transfer sensible heat from exhaust to make up air without risk of cross contamination.

"I want to thank you and your team for a professional, high performing product/service. Your attention/care to detail was impeccable and it was great to be able to count on you"

**Dan Arnold, P.E. J.W. Swanson & Associates. LLC**

### The Solution:

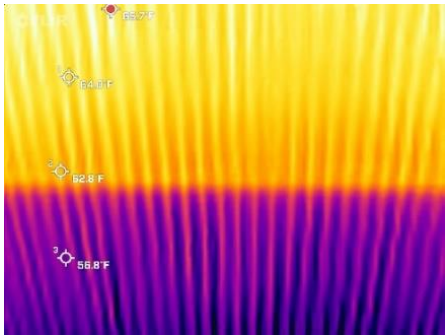
Carolina Heat Pipe utilized their split system heat recovery "controllable" TRAHP. Matching coils were installed in the exhaust and supply air streams, both operating at 27,500 CFM. The project delivery included field installation of the heat pipe coils, interconnecting piping between the coils, full modulating refrigerant control system, evacuation and refrigerant charging the heat pipe circuits.

### Performance Results:

The Heat Pipe was designed around winter conditions of 70F exhaust air Vs. 0F make up air. At design conditions the 4-row SHR TRAHP system will transfer 1.1 MMBTU sensible heat from exhaust to make up air, increasing make up air from 0F to 35F DB.

CHP's refrigerant modulating control system creates the ability to slow the heat transfer rate and provide frost protection at the exhaust coil while continuing the process of heat transfer from exhaust to make up air.

Boiler fuel savings will provide for a simple payback of less than 24 months. Added maintenance for the SHR TRAHP is simple, only periodic coil washing for the life of the system.



CHP utilizes IR technology to validate performance of their heat pipe systems at system start up.

**Commercial • Educational • Governmental • Industrial • Medical**

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