Energy Recovery Heat Wheel Lab

The Energy Recovery Heat Wheel Lab was generated from an AAON sponsored mechanical engineering senior design project. This particular lab is used as an introduction to heat wheels and as a refresher on the basic HVAC process. The energy recovery heat wheel provides a small scale representation of how the HVAC process can be made more efficient by the implementation of heat wheels.

Testing:

The experiment is located in EPS 008 at Montana State University. The experimental setup consists of two separate chambers representing incoming outdoor air and outgoing exhaust air, where the heat wheel exchanges heat from the heated exhaust air to the colder outdoor air. The Energy Recovery Wheel Lab is shown in Figure 1.



Figure 1: Energy Recovery Heat Wheel Experiment