

## Heat Exchanger Flow Rate Lab

The Heat Exchanger Flow Rate Lab was designed to introduce the MET 466 students to a real life heat exchanger used for HVAC experiments. In this particular lab students use a refractometer to determine glycol percentages along with recording readings from a paddle wheel flow meter as shown in Figure 1 and Figure 2.



Figure 1: Refractometer



Figure 2: Paddle Wheel Flow Meter

### Testing:

The Heat Exchanger Flow Rate Lab's testing is conducted in Montana State University's HVAC Lab. In this experiment the temperatures of the incoming and outgoing air and the incoming and outgoing water are recorded, along with the mass flow rate of water, to determine the flow rate of air. This process is shown in Figure 3.

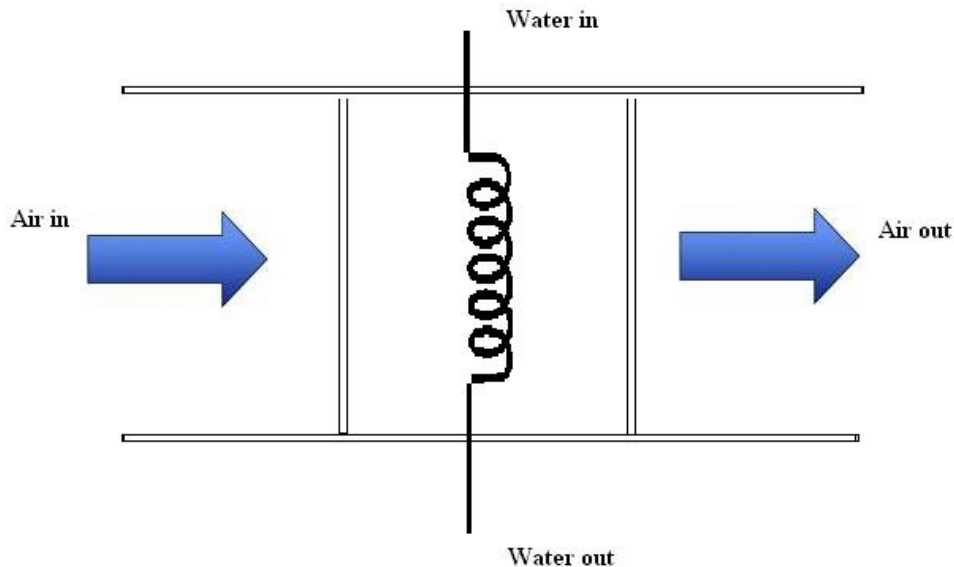


Figure 3: Heat Exchanger