

# Finned Tube Heat Exchanger

revision 97.5

## **A. Procedures**

**1. The following steps should be taken before the Finned Tube Heat Exchanger Experiment (see [figure #1](#) ) is started.**

a) Make sure that the tank has [propylene glycol](#) in it.

**Note: Do not turn on the steam until the pump is on and you can see fluid flowing through the system**

b) Start up computer control following [Bailey Instructions](#).

c) Start the pump using the computer controls as follows:

- Confirm that the flow valve is open (the horizontal bar in the flow control faceplate should be at 100%).
- Enter the control faceplate (by typing the number or letter sequence shown in red) for one of the tubes and press **F7** to open the tube.
- Look at the control board on the experiment to see if the right red light has turned on.
- Exit the tube faceplate by pressing **F10**.
- Enter the pump faceplate and turn the pump on the same way you opened the tube.

d) Go over to the experiment and (with your safety glasses on) look to see that fluid begins flowing through the system. It may take a few seconds. When the fluid is flowing you may turn on the steam using the computer controls.

## **2. To shut down the experiment**

a) Turn off the steam.

b) Open all the tubes and the control valve to maximum.

c) Turn the fans to high speed.

d) Let the propylene glycol cool to less than 100 C.

e) Turn off the pump and all valves with the computer.