

Finned Tube Heat Exchanger

revision 10

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 water in it.

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

b) Open the Labview VI ([here](#); in firefox only; see Figure 2)

c) Start the pump using the VI as follows:

- Confirm that the flow valve is to auto (the horizontal bar in the flow control faceplate should be at 100%).
- Select the pipe to run for the experiment
- Turn the pump switch on (it will change colors).
- Select fan speed (low/high) (fans must be off to change speeds).
- Turn the fans on (if applicable).

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 valve.

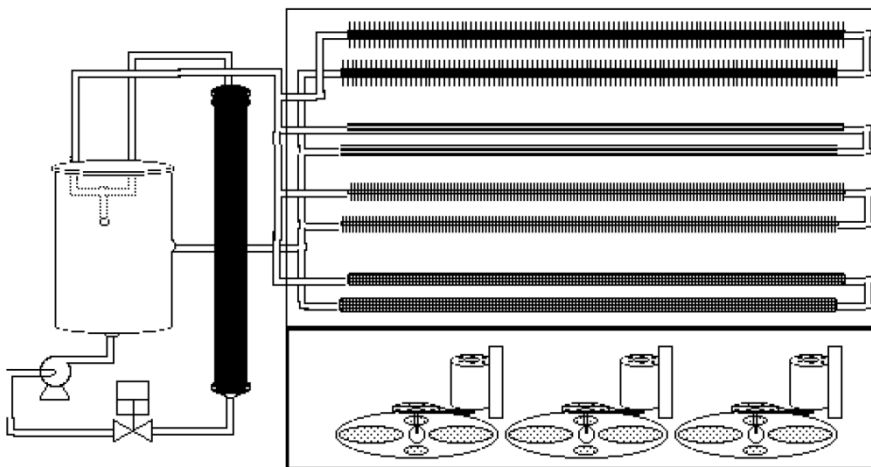


Figure 1 Finned Tube Heat Exchanger Schematic Diagram

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 water cool to less than 90 C.
- e) Turn off the pump and all valves with the computer.

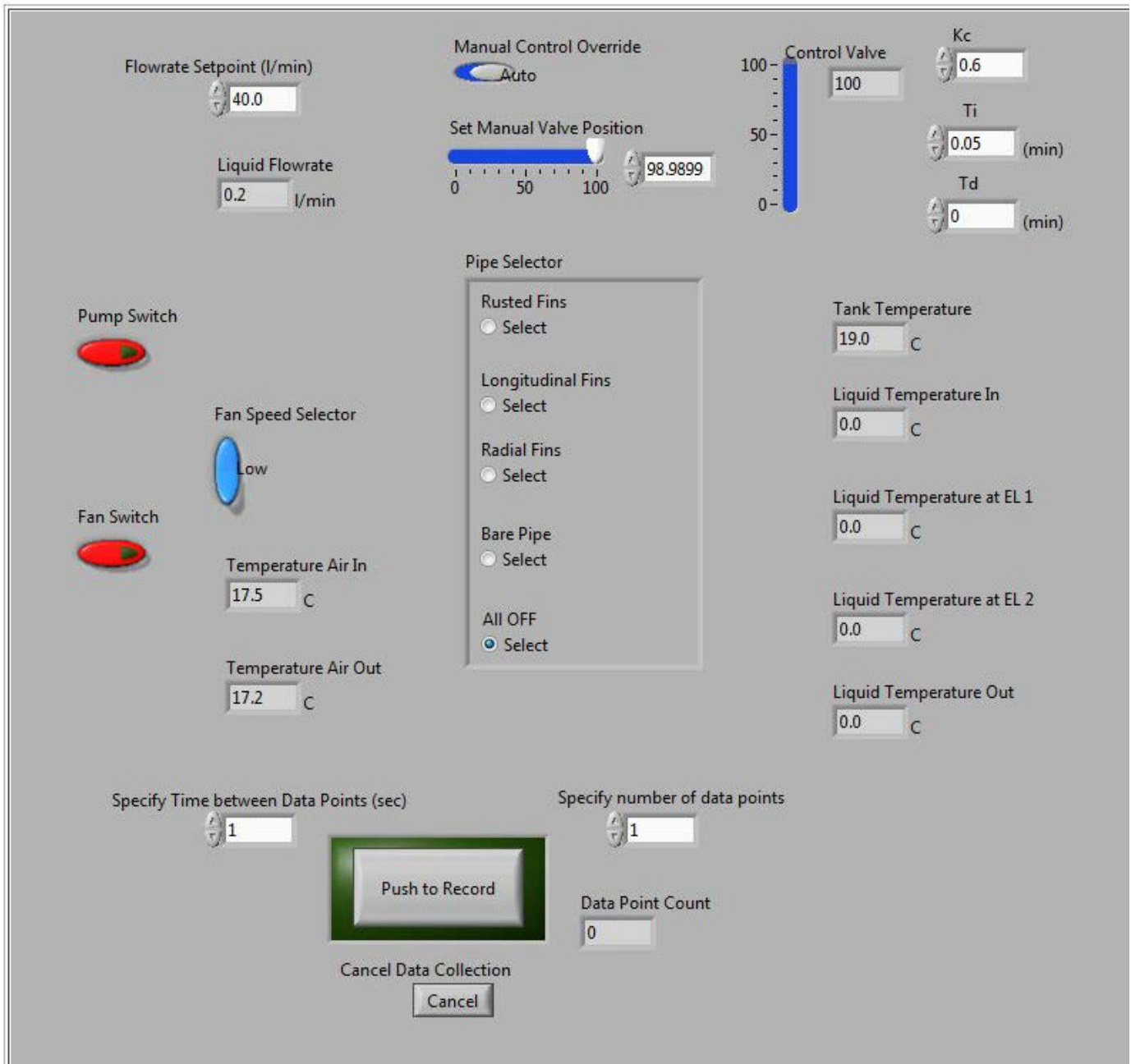


Figure 2 Labview VI for Finned Tube Heat Exchanger (tunable parameters have a white background)