# PIPE VISCOMETER EXPERIMENT

Version 6

**Startup** (You may want to start this experiment 20 minutes before lab time.):

• Make sure the power is on: the power box, the hanging power drop, and the mixers.

•Turn the mixers on.

•Then make sure the control valve is turned on using the ball valve (turned parallel to the pipe). You should usually find this valve turned on and do not turn it off during the course of the semester.

•Go to the Labview Controls (here; use only Firefox; see screen shot).

•Right click and request control of VI (see screen shot)

• Tunable parameters have a white background (instead of gray)

•Select the large or small pipe. (**NEVER** switch between the pipes while the pump is on.)

•Toggle pump switch on.

•Now you can read your flow rates, pressure drop, and fluid temperature.

•To switch to the other pipe: toggle pump switch off, select pipe size, turn pump on, collect data from the other pipe.

•Once you have values from both pipes, you can select what flow rates you would like to use.

•Then turn your pump off and de-select the window.

•Go to the flow control and select auto-control.

•Now you can use your set point to set target values below your maximum values.

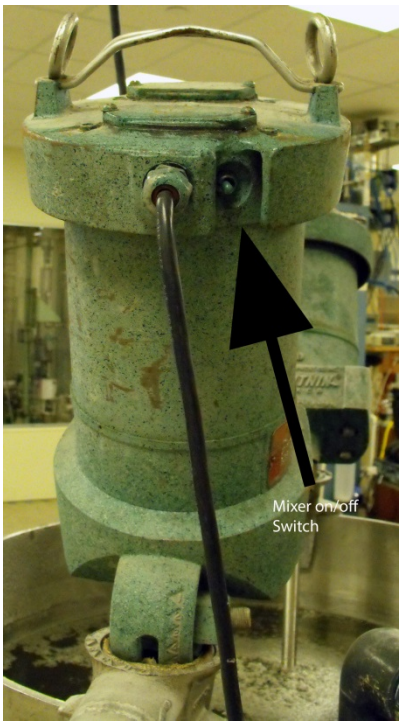
•Then go to pump control, turn it on, and record the important variables.

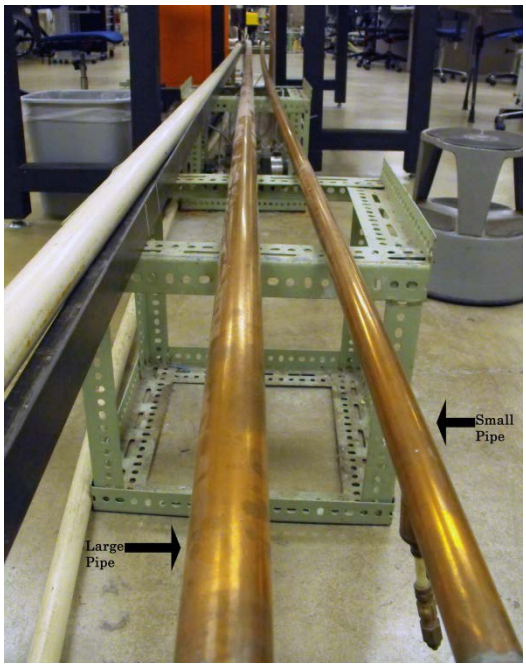
**Shutdown**:

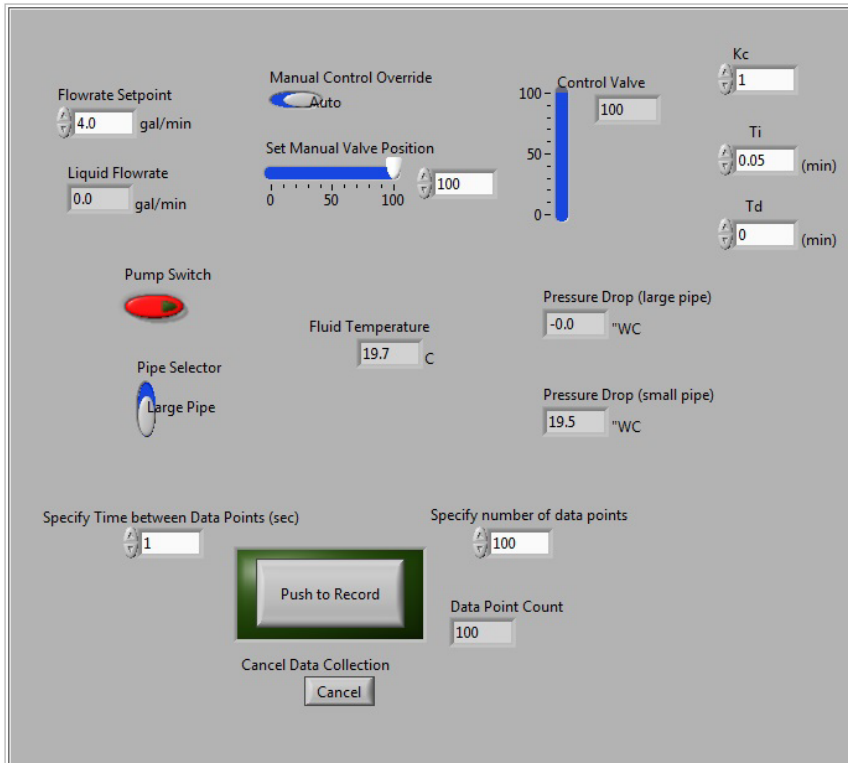
•Turn off the pump.

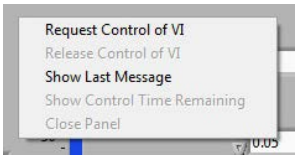
•Turn off the mixers.

•Leave everything plugged in.




**Figures 1a & b Screen Shot of Labview Controls for Pipe Viscometer; Right click menu**