Dr. Fletcher,

The purpose of our group is to identify the amount of head loss through the pipes and fittings of our experimental model. Then use those findings to correctly size and recommend one or more pumps to our company for the new juice process that they are building.

We have been recording several data points for each trial run. Measuring the pressure loss and the flow rate so that we can then calculate the friction factor for the interaction between the juice and the pipes. We have been changing the position of the control valve from almost closed at 10% to fully open 100% to try and get the full range of flows possible for our model. This way our model and recommendation to the company for the pump will be as accurate as we could possibly make it. Even though the juice process will be running constantly at a set flow rate.

The group has been working very well together and we have collected a lot of data for analysis.

Name withheld

Loss Coefficient for the U bend vs. Reynolds Number



Figure - Loss Coefficient for the U bend vs. Reynolds Number.

**Grade: 5/10**