

# Laboratory Research Set-ups

Photos of Experimental Set-ups and photos of Students Conducting Research in the AguaClara Lab

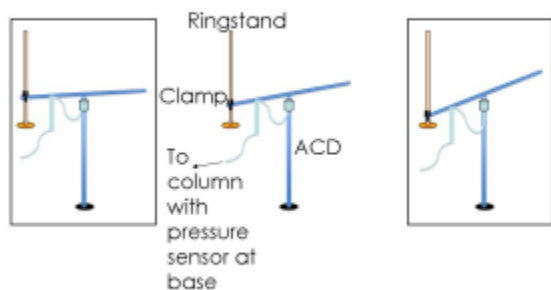
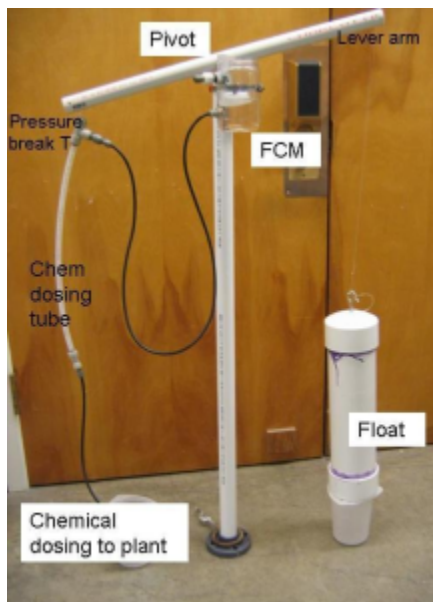


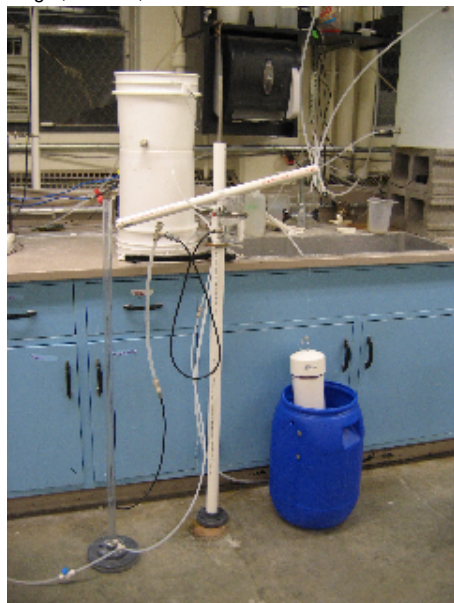
Diagram of robust ACD test set up with ringstand holding lever arm height, no float, Fall 08



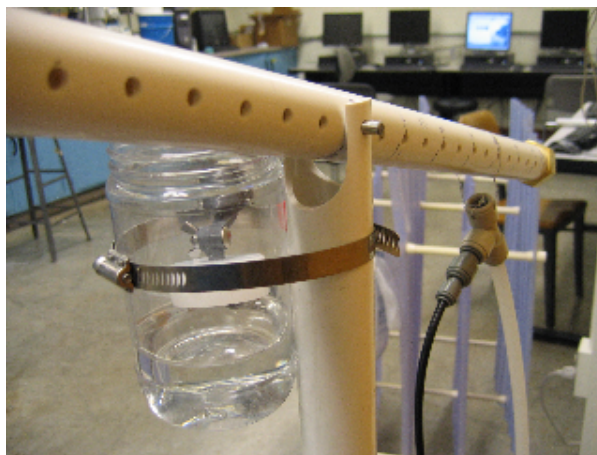
Labeled robust ACD, picture of whole system (FCM, lever, doser, float) standing alone ca. Nov 2008



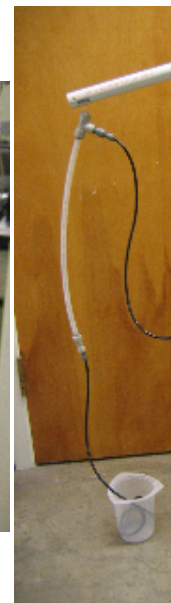
Close-up of the pre Nov 2008



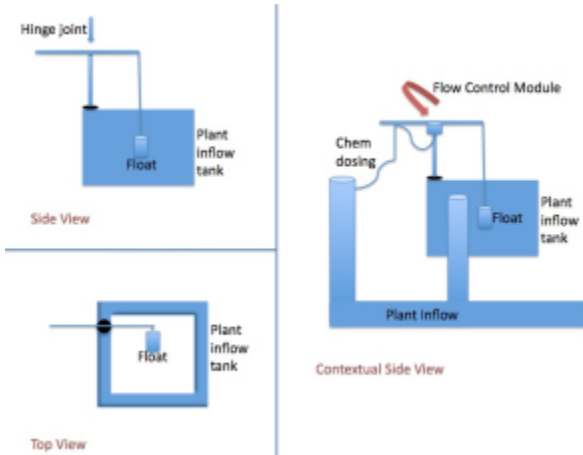
Robust ACD, picture of whole system (FCM, lever, doser, float) hooked up for testing ca. Nov 2008



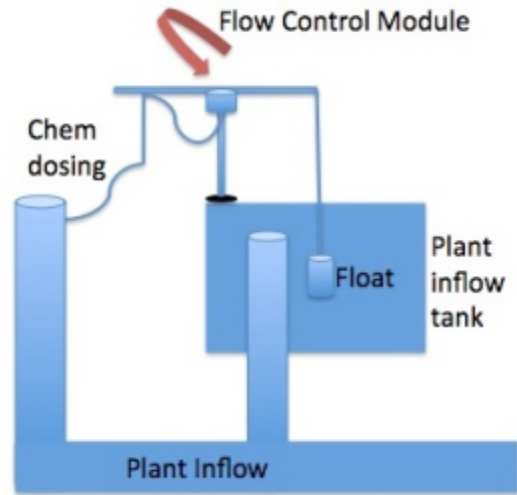
Close-up of the pivot and FCM connection in the robust ACD ca. Nov 2008



Robust ACD, picture standing alone ca. Nov 2008



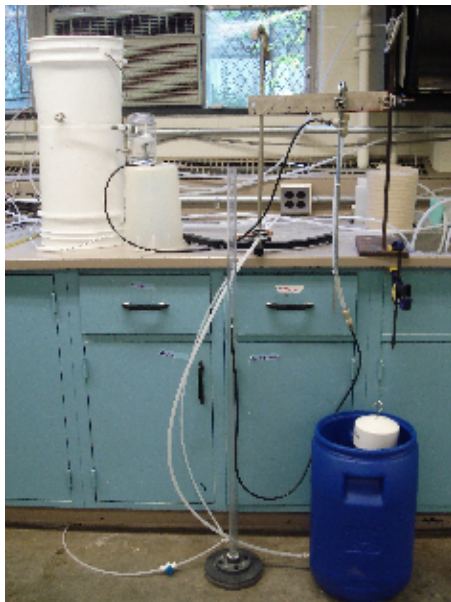
Side view, top view, and contextual labeled diagrams of Fall08 Automated Chem Doser



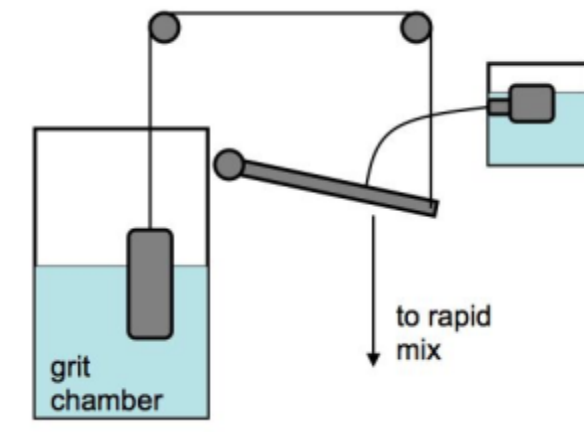
Side view labeled diagram of Fall08 Automated Chem Doser in context of Tamara plant



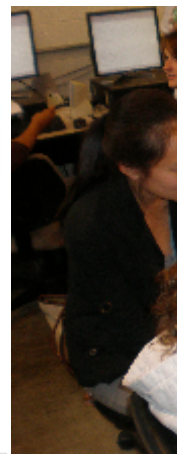
Labeled pic of auto October 2008 (with



Automated chem doser experimental set-up from October 2008 (with disconnected FCM)



Drawing of proposed schematic for automatic flow and chemical dosing system

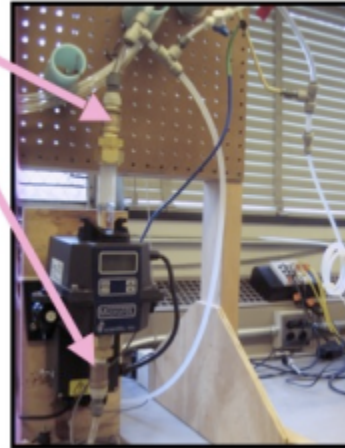


Demo Plant Team

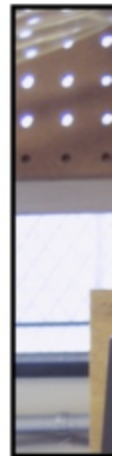


Sediment trap prevents flocs from slipping into column after flow has stopped !!!

Straight connections – reduces head loss



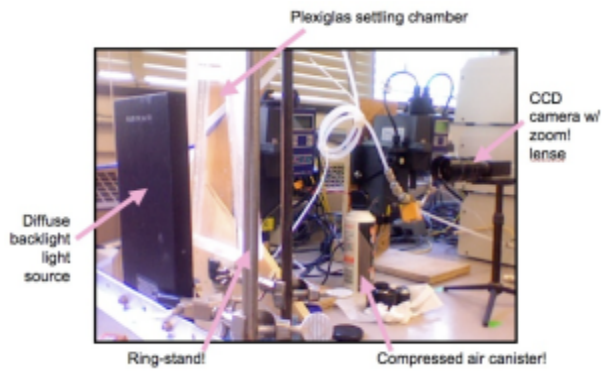
Straws to r



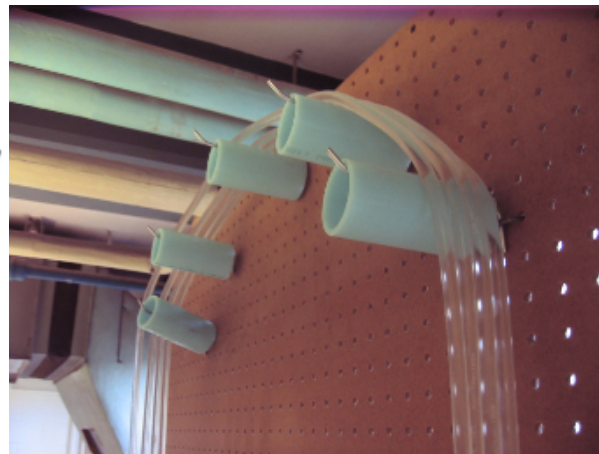
Tube Flocc - Improving Settling Column by particle trapping

Tube Flocc - Improving Settling Column by straight inlet

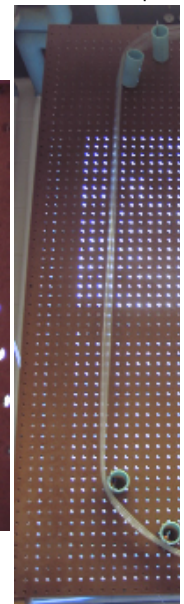
Tube Flocc - Improv



Tube Flocc - PIV Setup

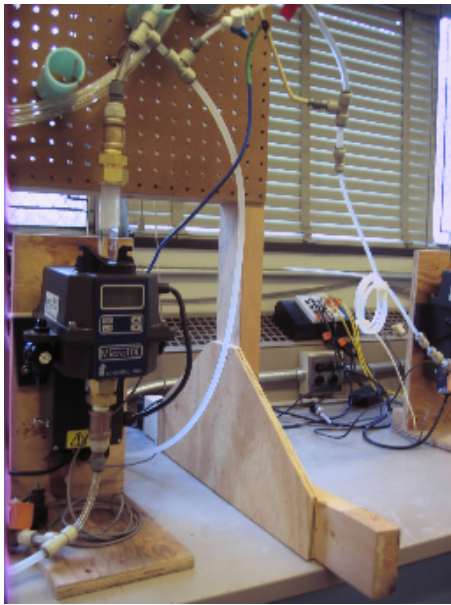


Tube Flocc - Board Flocculator - top

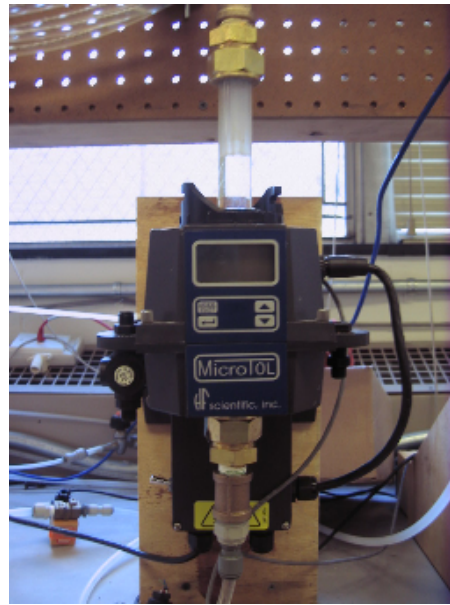


Tube Flocc - Just th

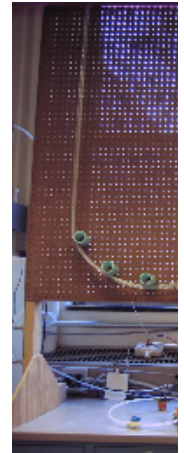




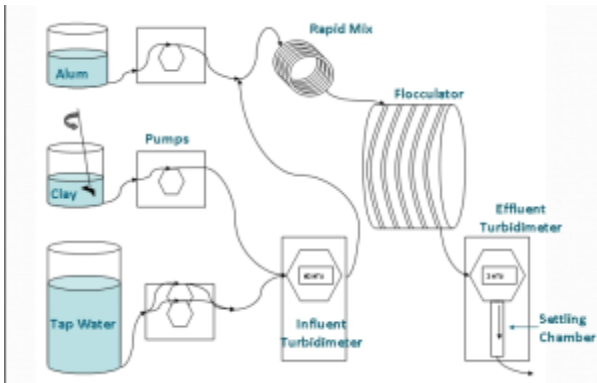
Tube Flocc - Board Flocculator and Effluent Turbidimeter



Tube Flocc - Settling column with Straight inlet



Tube Flocc - New B



Tube Flocc - Setup Schematic



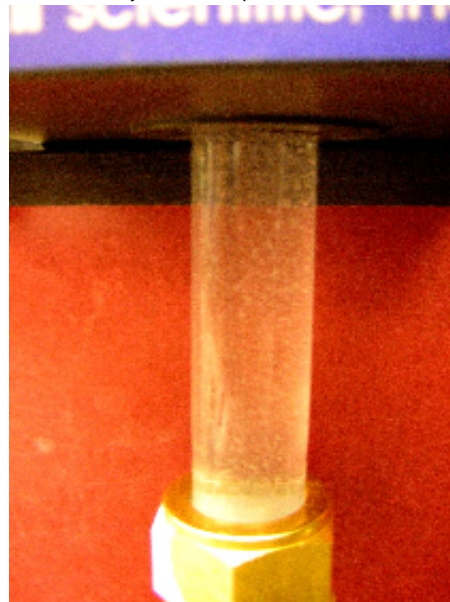
Tube Flocc - Dye Test Setup



Tube Flocc - Heat T



Tube Flocc- Laboratory settling column



Tube Flocc- Visualizing floc settling



Tube Flocc- Lab set



FCM- The column experimental set up for determining the relationship between flow rate and headloss (Fall 2007).



FCM- Top-down view of the float valves in chlorine (left) and alum solutions (right) for the corrosion testing (Fall 2007).



FCM- Overview of vertical distance between the float valve and the effluent location.