

Demo Plant Design & Construction

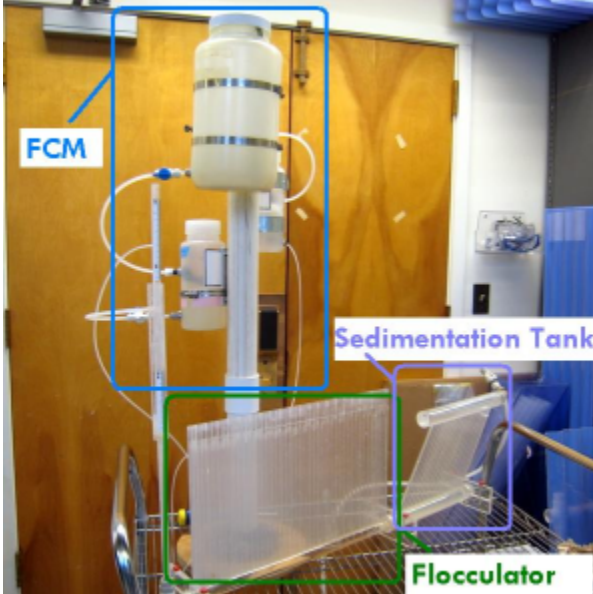
Demo Plant Design & Construction

Overview

The Demo Plant consists of three main parts:

1. The **Flow Control Module (FCM)**, which utilizes gravity and head loss to control the flow rates of dirty water, modeled by kaolin clay suspension, and aluminum sulfate solution ("Alum" for short) through the rest of the plant.
2. The **Flocculator**, which induces mixing, or flocculation, of clay and alum particles to form large particles called flocs.
3. The **Sedimentation Tank**, in which the flow rate is slower than that of the rest of the plant, allowing the flocs created in the flocculator to settle out of the water, collecting in the bottom of the tank.

The picture below shows all three parts of the Fall 2007 Demo Plant. Please click on the thumbnail for a larger version of the picture.

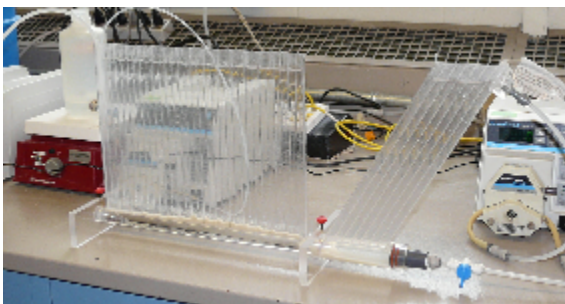


Summer 2007 Design and Construction

- [Flocculator](#)
- [Sedimentation Tank](#)

Spring 2008 Design and Construction

The Spring 2008 Demo Plant Team redesigned and constructed the Demo Plant, in order to address problems that were identified after the previous Demo Plant was built. The new demo plant is shown in the image below.



For details on the design and construction of the Demo Plant built in Spring 2008, please visit the following pages:

- [Flow Control Module](#)
- [Flocculator](#)
- [Sedimentation Tank](#)