

Coagulant Management

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Coagulants are a significant operating cost and thus it is important to use them efficiently. Coagulant management includes stock preparation, testing stock concentrations, dosing with the chemical dose controller, and injection of the coagulant into the raw water. As part of the AguaClara design philosophy these steps need to be done efficiently and we need to provide appropriate feedback to the operators so that they know when they have done these task well.

See [Stock Tank Mixing](#) for previous work on an efficient design for a mixer in the stock tanks. A draft document containing [analysis of the centrifugal pumping action inside the stock tank](#) is also available.

Current and Future Research

In Spring 2013, the Coagulant Management Team calculated the relationship between PACI density and concentration, recommended a plastic hydrometer of specific gravity range 1.000-1.220 for initial lab testing and eventual field use in Honduras, initiated the fabrication of a centrifugal pump to be tested using PACI, and created fabrication ideas for a coagulant injection point.

In the future, teams will fully fabricate and test both centrifugal pumps utilizing PACI to look for proper functionality of the system. In addition, future teams will develop more thoughts and ideas on a preliminary design for the coagulant injection point.

Members

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Documents

	Challenges	Tasks	Teach-In	Presentation
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