

Chemical Dose Controller ↑

Skills: welding (useful),

Introduction

The dose controller is an excellent technology, but it needs further refinement before it is widely deployed. The goals of this team are to refine the design of the constant head tank, work with the design team to create labels and scales for the various components, and work with AguaClara LLC to determine if the dose controller will be packaged and sold by AguaClara LLC or built in country.

- Make it modular so that the whole dosing system only requires a few attachment points to a water treatment plant.
- Add the calibration columns to the constant head tank module.
- Create a new constant head tank. The ideal constant head tank has the following properties
 - Tubing clamps for valves may not be a good option because the tubing deforms and then never rebounds.
 - Rectangular tank with 4 compartments for the 4 stock tanks that are each just big enough to hold a standard kerick float valve without needing to change the float. (this restricts independent maintenance)
 - flat side where float valve bulkhead fitting can be tightened to create a seal
 - PVC lid to cover the stock tanks?
 - Consider fabricating the tank using [PVC welding](#) from flat PVC stock.
 - Captures sediment and doesn't send the sediment into the dosing tubes



There are two recent designs of the lever system. The most recent design created by the Cornell team is modular and can have 1 or more levers with each lever system made identically. The design currently used in Honduras is a 2 lever system. Evaluate these two designs and in collaboration with AguaClara LLC select the best design.