

mmw86

Michelle's Individual Contribution Page

Spring 2012 Contributions

This semester, my team and I were working on the Stacked Rapid Sand Filter- Full Scale Team. Our task was to build a full scale slotted pipe manifold that will be implemented in the field. In order to do this, we developed various molds to shape the ends of the slotted pipes so that they would form secure, sand tight connections with the end lines and trunk lines. We also tested various methods of heating the pipe to make it malleable enough to mold before deciding to use Crisco Pure Canola Oil, heated to between 240°F and 270°F. After forming these pipe to pipe connections, rubber Fernco caps are put in place at the ends of the trunk line and end lines. We then used steel cables and turnbuckles to stabilize the entire manifold. This aspect of the manifold is particularly important because it is assembled outside of the filter box and needs to be lowered in as one unit. We also developed different spacers to space two manifold layers an accurate distance apart from each other, one type for the end lines and one type for the trunkline. Future work includes testing ideas for anchoring the entire filter system in the filter box.