



PROJECT OVERVIEW

An established tree farm is utilizing a system to deliver chemicals for the purpose of feeding trees. To maintain the system, chemicals are also blended to flush or clean out the equipment. It is critical to accurately measure the amount of fertilizer in use during growing season for proper nutrient delivery and health of the trees. It is just as important to measure the amount of chlorine in use to keep the filter/drip nozzles clean from filamentous algae (this comes from pulling water from a pond).

The risk: There is the potential of harming or even killing the trees if too much chlorine, used in backwashing the system, is dispensed. Dosing the correct amount is crucial to keeping the system clean and operating, and in maintaining healthy trees.

Meter Requirements:

- Monitor flow rate
- Quick response time to change in flow rate
- Tolerant of algae growth without losing accuracy
- Minimal maintenance required
- Large flow rate operating range so system can be expanded upon

PRODUCT SPECIFICATIONS

- Ultrasonic Flow Meter with display
- Minimum of 7.5 V (dc) to power the meter
- Maximum of 36 V (dc) of power to the meter
- $\pm 2\%$ accuracy
- Flow range 0.1 to 15 fps (.22 GPM (1") to 5,100 GPM (12"))
- 4-20mA or Scalable pulse output
- No moving parts
- Easy installation
- Low to zero maintenance

APPLICATION BRIEF

CHEMICAL DOSING FOR TREE FARM

March 25, 2024

PRODUCT SOLUTION

The FLOMEC AQUAsonic with 4-20mA/Scalable pulse output was designed for this dosing application. When you pair our AQUAsonic 4-20mA with a dosing controller, we can measure the amount of water moving through the main line so the controller can release the right amount of chemicals. Ultrasonic responds very quickly to the change in flow, which will keep the dosing controller dosing the correct amount of chemicals for application.

Benefits of adding the meter to this process included:

- Reduce the chance of over applying fertilizers or chlorine
- Extremely easy to install - gluing the tee in-between the pump and filtration system
- Saving 20 trees will pay for the meter

