

AUTOMATED POLYELECTROLYTE DOSING SYSTEM RETROFITTED TO AN EXISTING SYSTEM



Automated Polyelectrolyte Dosing System

The existing system consisted of two tanks, one positioned on top of the other.

The top one being the batch mixing tank and the bottom one the daily operation feed tank. The polyelectrolyte batch is made up in the top tank, allowed to mix and stand before it is dumped into the bottom tank.

The automation system detects when the top tank is empty

and starts a batch cycle, closing the automated transfer valve, starting the stirrer, opening the water solenoid valve and starting the Volumetric Feeder. The Volumetric Feeder is controlled by a timer in the PLC to accurately measure the dose quantity allowing the polyelectrolyte to feed into the water stream discharging from the wetting pan.

Once the Volumetric Feeder timer has timed out and stopped, the water flow carries on filling the tank until the level sensor detects the tank is full. The stirrer, which also is controlled by a timer in the PLC, will continue running until the required time is complete and will then allow the batch to stand.

When the level sensor detects that the bottom tank is empty then the automated transfer valve will open allowing the batch to transfer through to the bottom tank and the cycle begins again.

Another option which is available is where the hopper is mounted at ground level and the water is passed through a wetting cone, which means the hopper can be mounted remotely from the tank. As the top of the hopper is at waist height there is no need for platforms or steps to fill the hopper allowing better access for the operator and reducing installation expense.

The wetting cone overflow drain, piped to a suitable drain point, is required to drain any back flow to the wetting cone after the water flow has finished.

Filtec Volumetric Feeder and Wetting Cone

