



SANITARY BY DESIGN

ANDERSON-NEGELE

Application Bulletin

ITM-3 CIP Pre-Rinse Control

The Application

A turbidity sensor is located on the return line of a CIP cleaning loop prior to the return drain valve.

The Requirements

At the beginning of a CIP cycle a water pre-rinse is initiated to flush the residual product from the process equipment loop that is being cleaned. A turbidity sensor gives an indication when the rinse water has flushed a sufficient amount of soil from the loop.

The Anderson Solution

The ITM-3 is located in the CIP return line before the drain valve. During the pre-rinse step of the CIP cycle the water returning from the cleaning loop is monitored by the ITM-3. The ITM-3 produces an analog output proportional to the relative turbidity of the returning rinse water. An automatic control (PLC) acts upon the input based on a setpoint that represents the optimal turbidity for the pre-rinse to be complete. Once the signal from the ITM matches the setpoint the control closes the drain valve and advances to the wash step of the cleaning cycle.

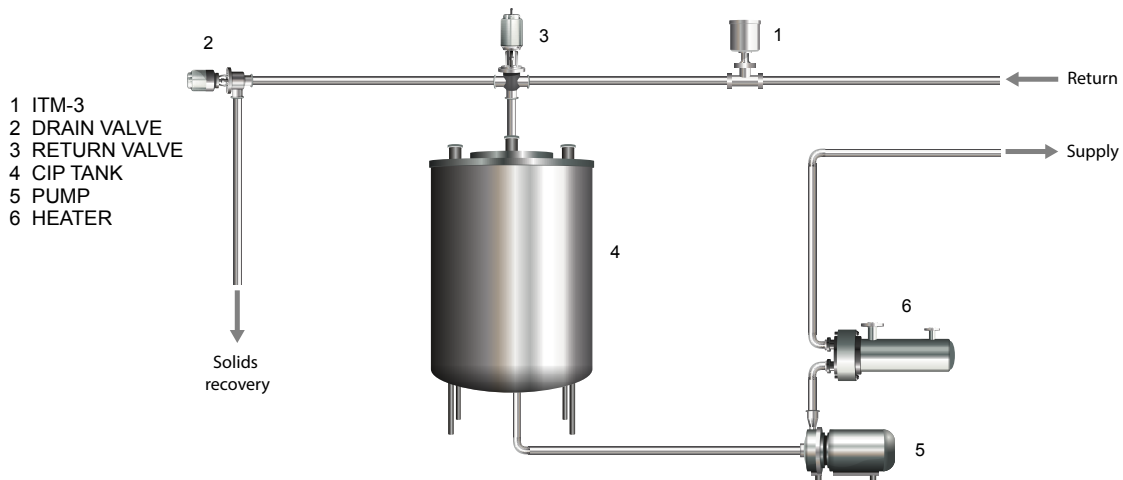
ITM-3



The Anderson Advantage

- Saves on chemical usage by ensuring soil removal is complete
- Relying on turbidity measurement over timers to control the duration optimizes water usage
- Reduces time by using just enough water to effectively flush the system regardless of loop length
- Standard programmable switched and analog outputs simplify integration into plant control systems
- Extended length "L" model overcomes the difficulties of measuring transition with high viscosity product applications
- Selectable ranges increase resolution to achieve optimal trigger points for flow diversion

Application Drawing



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