

# Application News

## Electromagnetic Flow Meter for Bio-Pharmaceutical Research

**Industry:** Pharmaceutical/Biotech

**Service:** Flow Rate/Total

**Fluid:** Slurry

### Overview

A leading company involved in the high-value segments of the Life Science industry, providing products and services to support discovery and commercialization of human therapeutics, contacted Flow Technology looking for a precise, low cost flow meter that could handle slurry at a low flow range. The company's Process Development Group, which works on evaluating new technologies for the biotech market, needed a reliable flow measurement solution for an ultra-filtration scale rig.

### Situation

The ultra-filtration scale rig recirculates a slurry of polymeric beads in a conductive buffering solution; simultaneously, it removes liquid and material through an ultra-filtration membrane. The rig is constructed primarily of sanitary components.

The customer needed a flow meter that could handle the slurry fluid and provide a flow rate display. In particular, it was important to minimize the weight and footprint of the flow meter and display assembly to avoid having to add additional supports to the current scale rig construction.

### Solution

After a visit by its local representative to discuss the application requirements, Flow Technology arrived at an informed assessment of the situation and offered a recommendation.

The customer had employed turbine flow meters in the past, however, Flow Technology advised against turbine technology in this instance since it is not suitable for use with slurries. Instead, FTI application engineers recommended an EL-500 Electromagnetic Flowmeter system with a MC308 Transmitter display panel.

### System Description

The EL-500 Magnetic Flow Meter was selected for its ability to handle conductive slurries, accuracy of 0.2% of reading, choice of end fitting options, small size and light weight. The meter's low flow range of 0.022 - 1.1 GPM met the customer's needs, and its electromagnetic technology proved to be the ideal answer to the conductivity of the slurry solution. The MC308 Transmitter display unit was chosen for its versatility, remote mounting ability to lessen the weight on the meter, and password protection security to protect the customer's data.

### Technical Information

Flow Meter (Model Number): EL500-003NPTSPLCA

Transmitter: MC308CCVM2D3C21N

Flow Rate: 0.022 - 1.1 GPM

Fluid: Slurry



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