

Pharmaceutical Company Slashes pH Maintenance Costs in Batch Fermentation

Results

- Reduced product rework and scrapped batches with proper calibration procedures
- Reduced the number of daily equipment checks
- Extended calibration intervals
- \$113,325 savings per year in maintenance costs*
* 1511 man hours using average burden rate of \$75.00 per hour

Application

Pharmaceutical pH monitoring batch fermentation.

Customer

Major multinational pharmaceutical company

Challenge

The customer determined that pH maintenance accounts for 46% of all the field work. Customer wanted to increase pH reliability and eliminate rework/scrap due to poor pH measurements. They also wanted to streamline maintenance practices.

Solution

Emerson Process Management determined that pH measurements could be improved by using HART™ digital field communication protocol in the transmitters that communicated with AMST™ Suite, Intelligent Device Manager. The improved maintenance strategy included glass impedance and reference impedance measurements to determine sensor health as well as Automatic buffer recognition to improve pH Calibrations. Built-in temperature compensation improved pH sensor accuracy and further tightened calibration procedures.

Emerson's recommendations allowed the customer to eliminate pH trims. AMST™ Suite allowed them to extend the interval of performing calibration checks by having critical sensor information available at the operation station via a HART™ digital signal. Tighter pH measurements allowed for better batch control, significantly cutting product rework and scrap.



HX338 product: Steam Sterilizable and Autoclavable pH sensor measures accurately after many Steam-In-Place (SIP) cycles.



1056 Dual Input Intelligent Analyzer: The analyzer has sensor diagnostic capabilities.

EmersonProcess.com/LiquidAnalysis



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