



SIEMENS

Bury a SITRANS MAG Sensor? Sure!

With Siemens remote mounted transmitters all your readings are taken inside the plant.

Process Instrumentation

Challenge

A large east coast water supplier faced a number of challenges with one of its pumping stations. It was built more than 35 years ago on a 25' earth mound ("ant hill") to protect it from flooding, the pumping station was becoming very expensive and inefficient to operate:

- The old, existing mechanical flow meter was obsolete and defective, requiring replacement
- The old meter did not provide precise or accurate measurements
- With the inaccurate measurements, the customer had difficulty determining if there was any leakage from the pump to the plant
- The meter was inappropriately mounted on a downhill section of the ant hill, leading away from the pump
- Reading the flow rate meant the customer had to go out to the meter's location.
- The customer contacted Siemens to simply replace the old meter with an electromagnetic (MAG) meter at the same, poor location, unaware that other alternatives were available.

usa.siemens.com/mag



Solution

Siemens and the Channel Partner met with the customer's engineer and contractor to survey the site and suggested an alternative that would address their challenges: bury a 16" SITRANS MAG5100W flow sensor in a flat area leading away from the station. Initially, the customer and their engineers resisted the idea, wanting the meter to be visible at all times. However, they were convinced to implement this solution when looking at the benefits:

- The meter is now better positioned to provide accurate measurements
- The remote mounted flow transmitter and display are located inside the plant for easier reading
- A removable potting compound was applied to the sensor tube's electrical connections, providing long-term protection
- The two-part epoxy painted sensor tube prevents corrosion this solution is much less expensive than building and maintaining a concrete vault, still subject to flooding, to house and protect the meter.

Flow Meter Design Features

- 1" to 78" available sizes
- Integrated Hastelloy-C measuring and grounding electrodes standard
- Agency approved, hard rubber liner for many applications including potable water, wastewater and non-aggressive electrically conductive process fluids
- Standard version is NEMA 4X, but can be simply made suitable for direct burial and constant flooding areas; NEMA 6P
- Easy commissioning with SensorProm technology to automatically upload calibration values and settings
- SensorProm allows for post installation, in-situ verification of full functionality and ensures meter is working as well as the day it was calibrated (transmitter-dependent)

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