



MUNICIPAL WATER TREATMENT FACILITY INCREASES WATER QUALITY WITH UNIVERSAL TRANSMITTER TECHNOLOGY

Application

Raw feed-water measurement to water plant

Customer

Municipal water treatment facility in the United States

Challenge

This municipal water treatment facility (over 40 million gallons per day capacity) had problems controlling the volume of treating chemicals to the raw water feeding the facility.

The previously installed magnetic flow meter caused erratic flow measurement when it exceeded 50% of its flow range and resulted in incorrect volumes of feed chemical into the raw feed water supply.

This reduced water quality caused facility operations personnel to operate the valves in manual and pay close attention to the chemical feeds. The customer considered removing the entire 30-in. (76.2 cm) magmeter sensor, which would involve shutting down the facility. This would have incurred significant repair costs, which include labor and a crane to remove the 20-ft. × 15-ft. (6.1 m × 4.5 m) cover to a concrete vault and the 1800 lb. (847 kg.) sensor.

Results

- Improved water quality
- Avoided facility shutdown
- Reduced operations and maintenance costs

Stable and accurate measurement from the Rosemount™ 8712 Magnetic Flow Meter with Universal Auto Trim capability enabled the facility to automatically operate chemical feed volumes and improve water quality.

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Solution

The sensor was found to be in working condition through a resistance check. The previously installed transmitter was then replaced with the Rosemount 8712 with Universal Transmitter Technology. The plant operator manually stabilized the flow rate, which provided a baseline for the Universal Auto Trim feature included with Rosemount Universal Transmitter Technology. After a baseline measurement was found, the 8712 provided a stable and accurate measurement over the entire flow range of the sensor.

Stable and accurate measurements from the 8712 enabled the facility to automatically operate chemical feed volumes, resulting in improved water quality. Automatic operation also decreased the time spent by operations personnel running the chemical feed in manual. Finally, the facility avoided a plant shutdown by only replacing the previously installed transmitter with the Rosemount 8712 and not the entire sensor assembly. The Universal Auto Trim capability provided this customer with a best implementation practice that enabled the achievement of these business results.



The Rosemount 8712 Magnetic Flow Meter with Universal Transmitter Technology.

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