CASE STUDY

SALEM



City of Salem, Oregon Utilizes Encore[®] Pumps 700 Metering Pumps to Ensure Reliability and Accuracy

OVERVIEW

Salem, the capital city of Oregon and its third largest city, lies in the center of the lush Willamette River valley, 47 miles from Portland. The Water Quality section of the City of Salem Public Works Department is responsible for ensuring that the highest quality water is being delivered to over 177,000 customers in the Salem area.

The City of Salem uses a slow sand filtration water treatment process, which uses naturally occurring biological activity to clean drinking water. The water treatment facility treats an average of 30 MGD throughout most of the year, with a peak of 50 MGD in the summer. Sodium hypochlorite is generated on site for disinfection, with fluoride and soda ash added. In 2006, the City of Salem won the "Best of the West" award for the best tasting water as recognized by their peers at the Pacific Northwest Section of the American Water Works Association.

In 2001, the City of Salem installed five Encore® Pumps 700 metering pumps that continue to be in service today. Three are used to deliver hydrofluosilicic acid (fluoride), and two are used for delivering brine to the on-site sodium hypochlorite system. After many years of accurate, reliable service from their pumps, the City of Salem installed two additional Encore® Pumps 700 pumps in 2009 and in 2012 as backup to their hypochlorite delivery system. Each application requires a highly accurate, reliable dose of chemical to meet drinking water compliance and the Encore® Pumps 700 metering pumps deliver a consistent dose around the clock. The Encore® Pumps 700 combines the ruggedness of a hydraulic diaphragm drive with the economy, simplicity, and serviceability of mechanical diaphragm liquid ends. Unlike solenoid or loss of motion pumps, the Encore® Pumps 700 diaphragm metering pump is driven by a rotating crankshaft where the eccentricity can be smoothly adjusted during operation. There are no return springs, and the diaphragm moves with simple harmonic motion. This design provides reliability and longevity, and pump valves operate with far greater efficiency and minimal system vibration.



Salem, Oregon Encore® Pumps 700 metering

The Encore® Pumps 700 pump, offered in multiple sizes and configurations, is engineered to handle municipal and industrial metering applications in water and wastewater treatment, swimming pools, food processing, chemical processing, brewing and distillation, and agriculture.

"For 13 years, our Encore® Pumps 700 pumps have been running perfectly. We are very pleased; this is the best pump I've ever used! We keep them maintained and they just seem to run forever."

Tim Sherman Treatment Facility Supervisor, City of Salem, Oregon

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