

Coastal Town Successfully Incorporates Peristaltic Dosing Pumps in New Water Treatment Facility

The City of Newport is a small community of approximately 10,000 located on the Central Oregon Coast.

The City has a potable water system composed of many individual components, including intakes, distribution networks, treatment and storage facilities, and other system components that together provide potable water to the community.



The City completed a master water planning effort that included, as part of the recommendations, a high priority project to address deficiencies related to the water treatment facilities in Newport.

The previous water treatment plant in Newport was constructed in the 1950's. The facility utilized circular solids contact clarifiers, multi-media filters, and liquid hypochlorite disinfection. The plant had been well-maintained but had begun to show its age with numerous structural, foundation, and process problems making peak operation a challenge.

In the fall of 2012 the water treatment plant came online. It is capable of treating approximately 7 million gallons of water a day, (expandable to 10 million gallons a day), enabling Newport to meet demands far into the future. The plant uses membrane filter technology to produce high quality water.

Chlorine is injected into the water to provide the required disinfection and free chlorine residual in the distribution system. Per State and Federal Rules, water must be in contact with the disinfectant for a prescribed amount of time (“contact time”) necessary to kill or inactivate microorganisms prior to consumption. In addition, the City must maintain a detectable free chlorine residual in the distribution system at all times.

The new treatment plant required an efficient and accurate means of chlorine feed into the system. The choice was made to install Blue-White Industries’ FLEXFLO® M3 chemical dosing pumps. FLEXFLO peristaltic pumps will not vapor lock or lose prime when used to dose off-gassing chemical and these low maintenance, easy to operate peristaltic pumps deliver precise chemical dosing to meet the standards for potable drinking water.

Currently the facility uses FLEXFLO M3 pumps to dose Sodium Hydroxide (Caustic), Sodium Hypochlorite, Sodium Permanganate and ACH (Aluminum Chlorohydrate). Many of these pumps have been at work in the plant for 5 plus years without failing.

Treatment Performance

The water treatment plant in Newport is well operated, and the filters and dosing pumps work together to deliver high quality drinking water to the residents of Newport.

