



Panametrics' experience and solutions in water and wastewater

Overview

Water and wastewater are critical to human life. From processing raw water that renders it potable, to water treatment plants that release wastewater safely into our environment, these processes require several flow measurements throughout the value chain.

The water industry currently endures significant challenges caused by rapid urbanization, climate change and rising customer demands. Operators must ensure a sufficient water supply while managing resources by tracking and maintaining network efficiency, identifying leaks, and improving network segmentation while maintaining availability.

In wastewater treatment, aerobic digestion enables plants to increase their capacity cost-effectively by injecting oxygen

into the wastewater head space, resulting in up to five times the treatment capacity.

Accurate measurement of oxygen concentration is vital throughout the waste processing stages. Aerobic digestion uses microorganisms which thrive in the presence of oxygen to break down the wastewater during treatment. A high oxygen concentration in an aerobic digester indicates a reduction in the microorganism population which may require replenishment.

Similarly, a low oxygen concentration can lead to a loss of microorganisms and efficiency of biodegradation. This can be remedied by increased oxygen flow to the tank aerators or a decrease in the flow of waste water. Maintaining the correct balance for maximum efficiency involves accurate flow control partnered with reliable oxygen analysis.

Flow Meter applications

The path of water and wastewater defines when and where to establish flow measurement points. To maintain existing infrastructure, operators strongly recommend that users allow a continuous flow and install flow meters from outside the pipes. Pipe sizes vary, ranging from DN50 (2in) or less and up to DN2500 (100in) or more. Flow rates vary as well, particularly during the transition from day to night.

Panametrics' highly reliable clamp-on flow meters perfectly suit many applications and can:

- Install within minutes on the outside of the pipe
- Are able to work on a dual traverse set-up, even on large pipes (2m or 80")