

Tek-Thermal 1700B Mass Flow Meter provides accurate airflow measurement.



Application Note Wastewater & Aeration Basins

Application

Everyday use of Thermal Flow Meters at WWTP facilities means measuring the air (or oxygen) flow required for the secondary treatment of the activated sludge process when air and "seed" sludge are added to the wastewater to facilitate decomposition. A reliable and adequately distributed air/oxygen supply in an aeration system is a critical element in any effective wastewater treatment plant.



Tek-Thermal 1700B

THERMAL MASS FLOW METER

Challenges

Municipalities need precise mass flow measurement instrumentation to bubble the exact amount of air into these aeration basins so the bacteria can flourish. Increased public and private awareness of water quality, availability, and the cost is a driving force behind the demands for better efficiency and economy in these processes. Whether local needs call for new facilities or improvements to existing facilities.

Solution

Thermal Mass Flow Meters are used in wastewater & aeration basins and are critical tools for municipal processes. Up to 60% of the energy used by wastewater treatment plants is from the aeration process. Tek-Trol 1700B Tek-Thermal Flow Meters can meet these demands. At the same time, eliminate the undesirable system pressure drops and high maintenance costs associated with differential flow meters and rotary meters. Many municipalities used differential pressure (DP) devices to measure the mass flow rate of air delivered to their aeration basins. Still, these devices proved to be expensive to maintain, clogged easily, measured only volumetric flow, and required a separate pressure and temperature transducer and flow computer to deliver accurate mass flow.

