# **Organic Loading Monitoring**



Application Note W-AN20

Images and additional text provided courtesy of SENTRY™ Water Technologies Inc. • sentrywatertech.com



# **Problem**

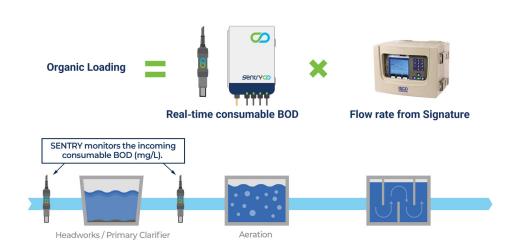
Municipal and industrial wastewater treatment plants need reliable influent wastewater-quality data on organic loading. Traditional sensors may provide real-time information on the type of pollutant, but not on consumable biological oxygen demand (BOD) and organic load in the incoming wastewater.

## Solution

Interfacing a SENTRY<sup>™</sup> biological activity monitor with Teledyne ISCO's Signature<sup>®</sup> flowmeter will help determine the desired organic load.

A Signature flowmeter can calculate flow using standard open channel level-to-flow and area velocity conversions, as well as user defined equations, level-to-area data points, or level-to-flow data points, depending on the application needed. The flowmeter also provides input and output interface with external devices, such as a SENTRY biological activity monitor. The load calculation algorithm of the Signature flowmeter gets real-time consumable BOD information from the SENTRY monitor to calculate the organic load as follows:





The analog/MODBUS output from the Signature can be used to control airflow as well as chemical dosing. An automatic sampler can be interfaced with a Signature flowmeter to take samples based on loading or real-time consumable BOD information.

## **Value**

# Get information in real time

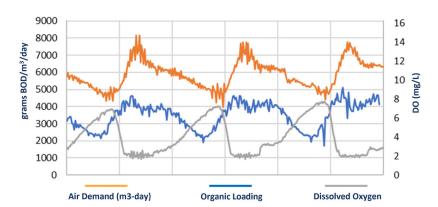
Get full information about pollutant loading from incoming wastewater when you need it.

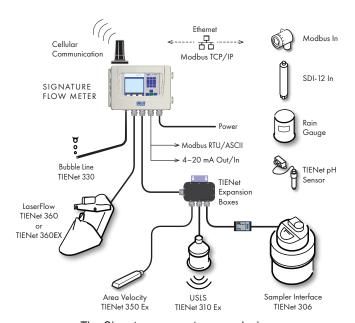
# Understand incoming load

Use the real-time, robust signal to optimize aeration delivery or control loading to different basins.

### Work well with others

Interface the SENTRY to a Signature flowmeter. Then, other devices can be added to the flowmeter as needs arise.

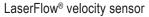




The Signature supports many devices

# **Products from Teledyne ISCO**







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DuraTracker® flowmeter

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