



CASPERON

CONVENTIONAL ACTIVATED SLUDGE SOLUTION



SANITAIRE
a xylem brand

Need to upgrade your conventional activated sludge process? We have the solution.

Many plants need to find ways to work with the infrastructure they have, even though they require upgrades for either increased capacity or advanced treatment for nutrient removal. The Sanitaire CASPERON is the solution of choice for customers looking for:

- Process support for nutrient removal design optimization
- Single supplier solution for ease of execution and post-startup support
- Performance guarantees for peace of mind
- Premium equipment for low maintenance and energy efficiency

The CASPERON solution can be adapted to meet your needs for any of the following activated sludge processes:

- Continuous aeration (NIT)
- Modified Ludzack Ettinger (MLE)
- Anaerobic Anoxic Oxidation (A2O)
- Bardenpho (4- or 5-stage)
- Simultaneous nitrification and denitrification (SNDN)

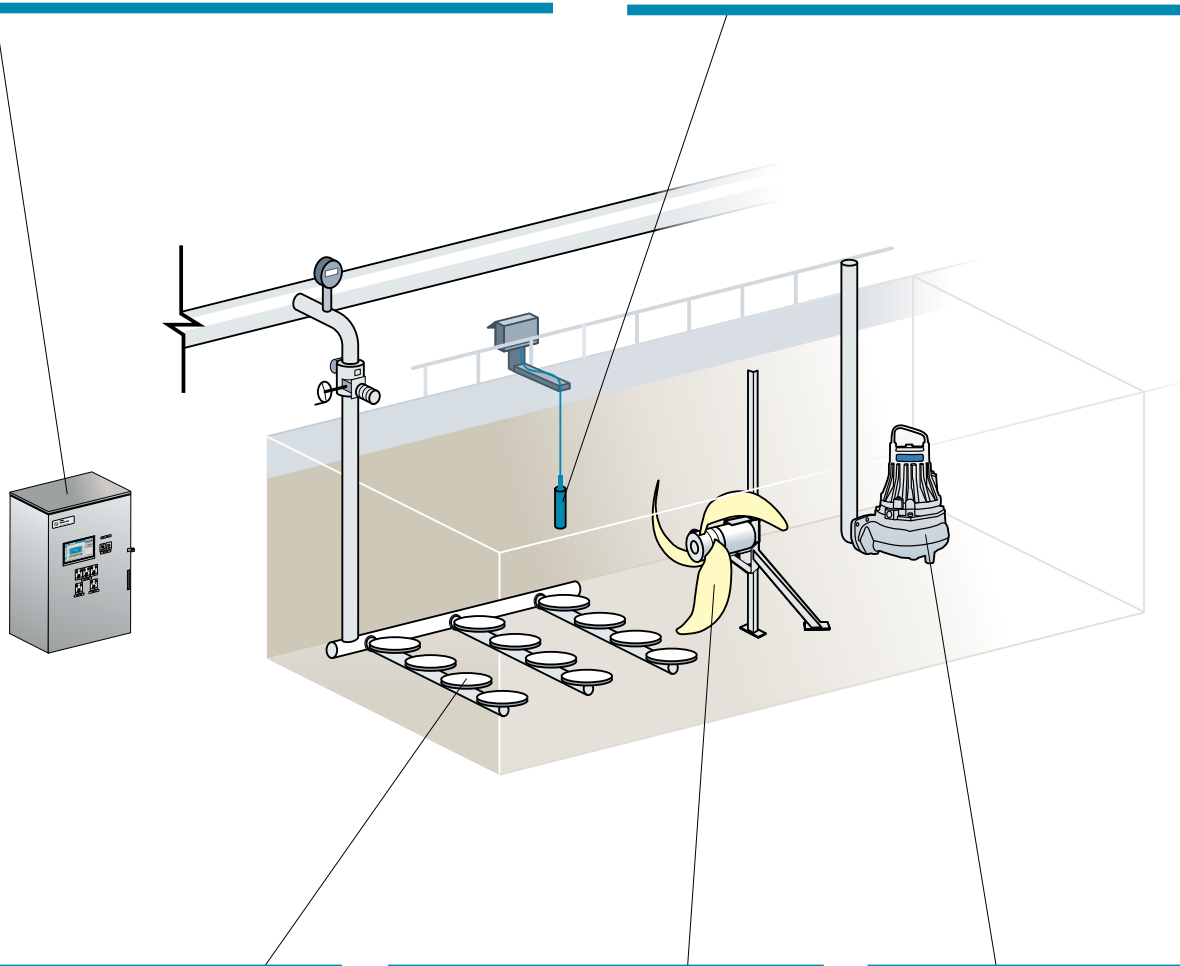


Muncie, Indiana, Water Pollution Control Facility

Sanitaire OSCAR performance optimizer control system offers energy saving, process stabilizing control algorithms for:

- Dissolved oxygen stabilization
- Ammonia removal
- Total nitrogen removal
- Phosphorus removal
- Counteracting mixing-limited conditions
- Sludge age and mixed liquor stabilization

YSI IQ SensorNet instrumentation is a modular water quality system for a complete sensor network and can accept additional sensors easily at any time. The system provides continuous monitoring of process variables with minimal maintenance required. If you can't measure it, you can't control it.



Sanitaire fine bubble diffused aeration grids efficiently transfer oxygen to the biological process for nitrification and BOD oxidation providing:

- Customized, durable design
- Minimal maintenance
- Trusted source for design data
- Oxygen transfer efficiency guarantees

Flygt submersible mixers are used in anaerobic and anoxic zones to provide complete mixing in oxygen free conditions. Flygt adaptive mixers adjust to dynamic conditions to increase or decrease mixer thrust to ensure energy savings when maximum mixing isn't required.

Flygt submersible pumps operate directly in the tank, with electrical controls and switch gear being the only items placed above water. They are smaller than non-submersible counterparts as the motor and hydraulics are integrated into one compact unit, resulting in smaller pumping stations that are less complex. Submersible pumps take up less space, make less noise, and eliminate cooling problems.



Our process engineers are here to help! Xylem's biological process expertise ensures your plant is designed in the most efficient manner to meet your effluent quality needs consistently and reliably. We understand how different operating strategies and equipment selection affect energy consumption and costs, and we can determine where additional operational efficiencies can be realized. By utilizing process modeling, proprietary design tools, and the combination of premium products, Xylem can guarantee process performance, providing you peace of mind.

The Sanitaire performance test facility houses one of the world's largest clean water test tanks with accompanying laboratory and state of the art data measurement and control systems. The indoor facility performs year-round testing, research and performance verification for the Sanitaire diffused aeration products and helps extend the scientific knowledge and application data in this area of environmental engineering.



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"We now save more than \$5,000 per month with the new aeration system, and that's with our low, grandfathered electrical rate. For 2014, the plant consumed more than 640,000 kilowatt hours and in 2016 it was just over 500,000 kilowatt hours."

John Barlow,
Muncie Water Pollution Control Facility
Superintendent



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