xylem
Let's Solve Water

Automation & Controls Solutions for Water Utility Challenges

Introduction

Xylem's portfolio of controls can help provide an accurate overview of your operation's performance. That includes measuring and collecting data so that you have real-time, accurate data. It also includes utilizing that data so you can take corrective action, to ensure that your system is optimized and that wear and tear is minimized. Ultimately, these control solutions help you address the complex and often interrelated challenges you face across every phase of operation.

Flygt Concertor® iPS/XPC

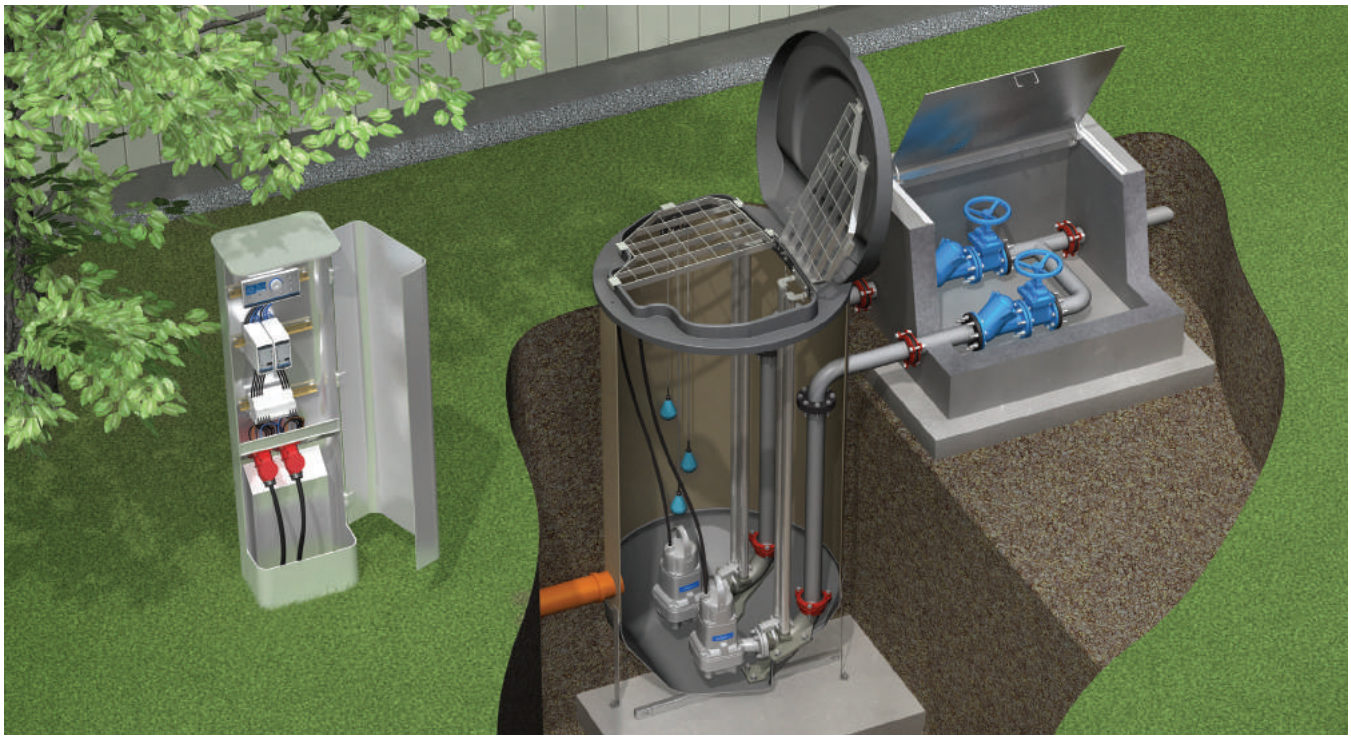
The Concertor iPS/XPC is a pre-engineered and pre-configured intelligent pumping system that marries a smart pump with smart controls. It gives you the lowest cost of ownership with maximum reliability, performance, and flexibility.

Without Concertor iPS/XPC, you'll have to deal with:

- Bulky control panels.
- Inefficient pumping.
- Clogging pumps with no embedded intelligence for protection.

With Concertor iPS/XPC, you get:

- Savings in both space and money, because there's no need for an external VFD, which reduces the size of the control panel by 50%.
- A reduction of up to 70% in power consumption, thanks to an energy minimizer that immediately recognizes the most efficient operating point.



Level Measurement

For sump or well pumping, it is important to understand the water level. More importantly, receiving reliable information on your water level allows you to prevent spills, minimize abrupt start/stops, and increases the efficiency of your pump operation.

Pressure Sensors

Without pressure sensors for level measurement:

- There are inefficient pump starts/stops without a continuous level reading.
- You face grease and foam issues.

When combined with Xylem's Flygt MultiSmart pump station management system, pressure sensors:

- Provide a way to precisely calculate all flow information (within 3% of accuracy) at a fraction of the cost to acquire a flow meter.
- Reduce emergency call-outs and operating costs associated with the removal of fat and solids, which can be costly when using conventional methods like vacuum trucks.

Ultrasonic Sensors

Without ultrasonic sensors for level measurement:

- There are inefficient pump starts/stops without a continuous level reading.
- There is a need for confined space entry during maintenance.

With an ultrasonic sensor:

- Equipment is accessible, simplifying maintenance.
- Confined space entry regulation is a non-issue.

Float Switches

Without float switches for level measurement:

- Wastewater spills happen.

When you include a float switch:

- You can perform basic start/stop/alarm functions at a low cost.
- No special relays are required; you can connect directly to a controller.
- It's an ideal backup or emergency level device.

Conductive Level Probes

Without conductive level probes for level measurement:

- You may face maintenance issues due to turbulence in the wet well.

When you include a conductive level probe:

- You can eliminate costly maintenance and downtime disruptions, thanks to its self-contained cleaning device and lack of moving parts.
- It's an ideal backup or emergency level device.

MJK MagFlux Electromagnetic Flow Meters

The MJK Magnetic Flow Meter has the flexibility to meet a wide variety of pressurized closed pipe system requirements, making it compatible with a broad range of applications.

Without electromagnetic flow meters for flow measurement:

- You'll receive inaccurate flow data.
- There are limited installation configurations.

With magnetic flow meters:

- You get high, precise flow measurement of 0.25% from 0.2-10m/s (0.6-30ft/s).
- You can monitor and control up to four flow meters with one Human Machine Interface (HMI).

Mechanical Equipment Monitoring

Flygt MAS 801 Pump Monitoring System

The MAS 801 pump monitoring system acquires measurement data via sensors, to protect the pump from harmful conditions. As part of a complete Flygt pumping system, it helps reduce costs over a pump's lifetime.

Without MAS 801, you may experience:

- Poor monitoring of large pumps.
- Added expense to add more pumps and/or pump sensors.
- Tedious wiring and lots of cables.

With MAS 801, you get:

- A single system that collects monitoring and level control data for large pump systems.
- An analysis of your pump's health condition, based on the data collected, which includes 3-axis vibration, leakage, and current monitoring inside the pump.
- A system that grows with your network, allowing for cost-effective future upgrades.
- Lower installation costs as no pilot cables are required.

Flygt MiniCAS Pump Sensor Monitor

The MiniCASII pump sensor monitor provides protection against high temperature and leakage, the most common threats to a submersible pump. It is used primarily with small and medium pumps and mixers.

Without equipment supervision:

- You're unable to monitor pump status.

With MiniCASII:

- You get a simple, low-cost solution that analyzes the condition of your pump by monitoring temperature, detecting leaks, and warning you about issues that could lead to expensive repairs.

Goulds Water Technology Aquavar IPC Variable Speed Controller

Optimized for pumps in dewatering, submersible, booster system, and ground water applications, the Aquavar IPC variable speed controller adds capabilities including multi-pump configuration and remote monitoring.

Without Aquavar IPC, you can experience:

- Inefficient operation.
- Weeks of programming and start-up.

With the Aquavar IPC, you get:

- The ability to efficiently monitor up to four pumps without the need for a costly PLC (Note: Xylem Controller or PLC required for wastewater applications).
- An out-of-the-box start-up that will automatically configure 28 main menus with the answers to just two questions, saving several weeks of start-up time.

Flygt SmartRun® Pump Station Controller

The SmartRun pump station controller combines the advanced functionality of a VFD with a simple and intuitive controller.

Without the SmartRun pump station controller, you may experience:

- Inefficient operation.
- A lack of pump system reliability, causing frequent downtime.

With SmartRun, you get:

- Up to 30% savings in power, thanks to the patented energy minimizer.
- No blockages and improved uptime, thanks to its ability to clean pipes and sumps by snoring and removing floating debris.

Godwin VFD

The Godwin VFD provides variable speed control to optimize system performance, increase efficiency, and improve mechanical reliability.

When using a traditional VFD versus the Godwin VFD, you may face:

- The inability to withstand the rigors of moving from jobsite to jobsite.
- The inability to use it outdoors in all weather conditions, regardless of temperature, humidity, or altitude.
- Expensive and time-consuming engineering design to set up drives for pump control.

When you use a Godwin VFD, you get:

- A solid design that includes a structural cage and shock vibration, for safe and simple mobility from one jobsite to the next.
- An updated air flow design with two centrifugal fans, roof ventilation, and filter mesh allowing for up to 5,000 cfm, ensuring that it can be used in any environment.
- A touch screen interface that allows you to set up the drive for any application without relying on an engineer.

Flygt MultiSmart Pump Station Management System

Capable of handling up to six pumps, the MultiSmart intelligent pump station manager is enabled with preconfigured functions. They maximize efficiency, save time, and reduce costs by preventing clogging and nuisance call-outs.

Without MultiSmart, your operations are:

- Inconsistent from location to location.
- Less intuitive to operate and navigate.

With Multismart you can:

- Eliminate conventional equipment from the control cabinet (event counter, voltmeter, ammeter, HOA switches, etc.), reducing cabinet cost by at least 20%.
- Save weeks of time and labor costs, since it only takes a few minutes to fully commission.

Xylem Control Panel

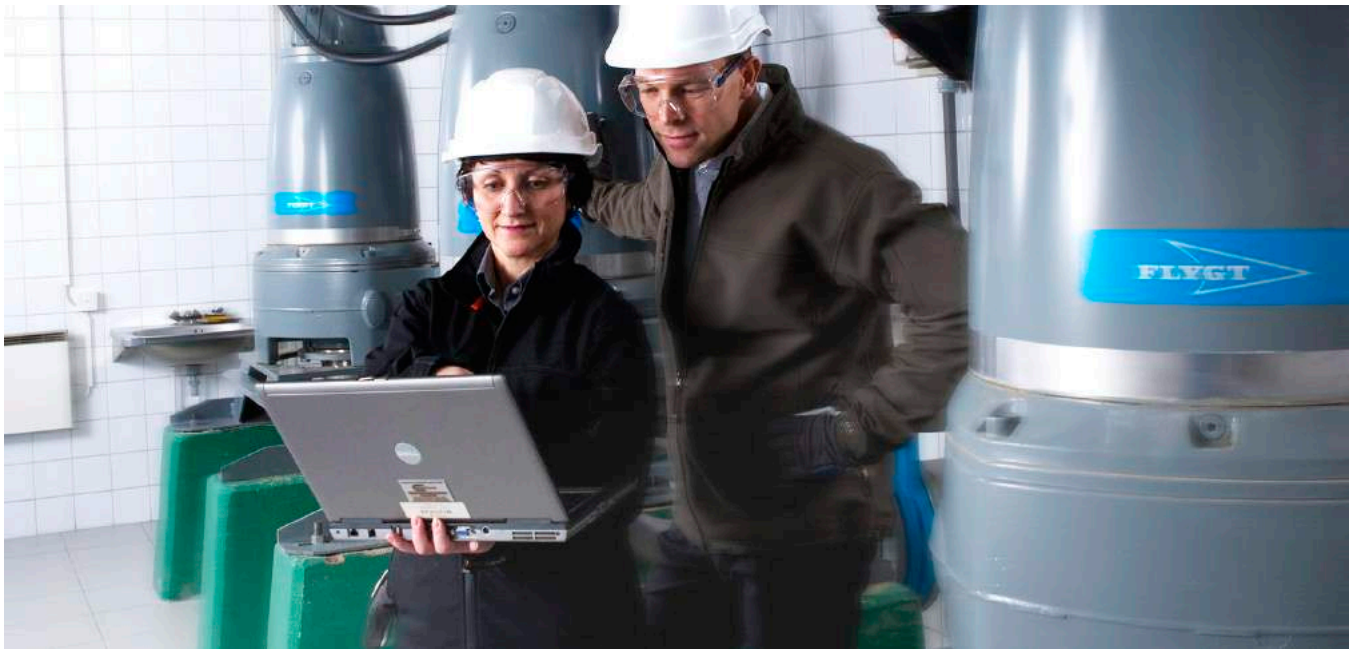
Pre-packaged and pre-programmed, the Xylem Control Panel provides an easy solution for your sophisticated controls needs.

Without a Xylem control panel:

- You may have to rely on various vendors for support, since no two control panels are identical.

With a Xylem control panel:

- You don't have to carry multiple spare part components, because Xylem components are standardized.
- Xylem provides support for the entire panel and its components.
- Your staff only needs to be trained once on panel operation and maintenance; thanks to consistent engineering, troubleshooting is seamless from one panel to the next.



Godwin Industrial Control Panel

Pre-packaged and pre-programmed, the Godwin Industrial Control Panel provides an easy solution for your sophisticated controls needs in a rugged and portable environment.

Without a Godwin industrial control panel:

- The pump and motor starter panel are sourced from different locations, making them unable to communicate with one another while being moved from location to location.

With a Godwin Industrial Control Panel, you get:

- A single solution for dewatering that provides both the pump and an across-the-line motor starter panel.
- Panels that are intentionally designed for portability and durability as the job site changes.

Cloud Security & Connectivity

Flygt Cloud SCADA

The Flygt Cloud SCADA provides the tools to quickly and accurately assess the condition of your system, along with remote monitoring and controls capabilities.

When using alternative SCADA systems, you're faced with:

- Lack of visibility.
- Logging too many hours manually controlling the system.
- Added expenses for maintenance and operation.
- Resourcing challenges to keep up with the complexities of the system.

With Flygt Cloud SCADA:

- There are no up-front costs required.
- You can free up resources for other tasks, because the workflow and data for total control and operation of the network can be configured in seconds.

Godwin Field Smart Technology (FST)

Godwin FST is a cloud based advanced telemetry system that allows you to monitor and control your pump from anywhere in the world.

Without FST:

- There's no visibility to equipment performance.
- You're unable to manage equipment from remote locations.
- You don't know when units need attention and when resources are required.

With FST, you're able to:

- View location, operation, and performance of equipment anytime, anywhere.
- Effectively and efficiently manage staff, because equipment can be remotely operated with a common user interface that's available on any smart device.
- Reduce the total cost of equipment ownership.

Godwin Advanced Remote Monitoring and Control

The Godwin Advanced Remote Monitoring and Control system allows for better use of labor and resources, and can eliminate the need for in-person pump watch in many jobs and locations.

Without Godwin Advanced Remote Monitoring and Control, you'll experience:

- Too much time and energy spent manually controlling pump systems.
- High operational costs.
- The inability to view or control pump systems, given the lack of SCADA capability.

With Godwin Advanced Remote Monitoring and Control, you get:

- The ability to integrate and automate complex pumping systems, to provide a real-time view of performance, alarming, and reporting.
- More time and money, thanks to reduced time at the job site.
- The ability to integrate into existing SCADA systems.

Flygt Adaptive Mixer

The Flygt Adaptive Mixers are a complete range of high efficiency mixers with built in controls. These mixers seamlessly integrate into comprehensive offerings by sending and receiving data digitally. Even when applied independently from system level controls, Flygt offers pre-programmed modules that automate typical mixing tasks.

Without Flygt Adaptive Mixers you'll experience:

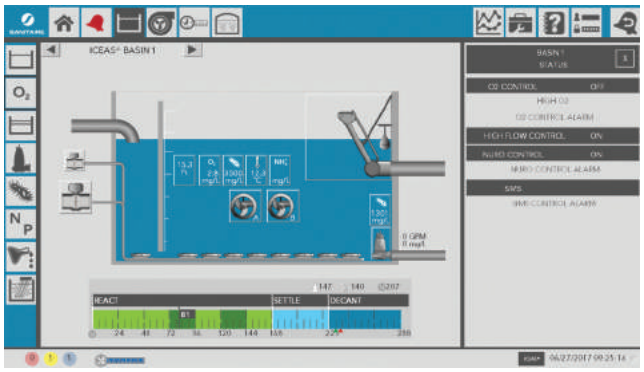
- Higher power consumption.
- Limitations to fixed thrust or challenging integration with variable frequency drives (VFDs).

With Flygt Adaptive Mixers you'll experience:

- Up to 50% reduction in energy consumption.
- Improved process resiliency with continuous thrust regulation.
- An increase in mixer uptime thanks to the mixer's ability to warn of pending problems, sense overloading, and adjust speed accordingly.

Sanitaire OSCAR Process Performance Optimizer

The OSCAR Process Performance Optimizer provides an entire biological treatment controls solution. From the hardware (aeration, mixers, pumps, instrumentation, etc.) to the software, it's a complete solution for maximizing performance and minimizing energy.



Without Sanitaire's OSCAR Process Performance Optimizer, you'll experience:

- Individual components that serve a singular purpose which are not properly integrated together.
- Higher power consumption.
- Higher chemical consumption.
- Increased number of blower starts.

With Sanitaire's OSCAR Process Performance Optimizer, you'll experience:

- A pre-packaged, pre-engineered solution that's customized for you by the wastewater experts at Xylem.
- Up to 22% reduction in power consumption.
- Up to 55% less chemical consumption.
- Up to 50% fewer blower starts.

Xylem |'zīləm|

1) The tissue in plants that brings water upward from the roots;
2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com

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