

GRUNDFOS iSOLUTIONS CLOUD FOR WASTEWATER NETWORKS

GRUNDFOS iSOLUTIONS



PUMP



CLOUD



SERVICES



Predictive maintenance optimisation and actual flow measurement for sewer refurbishment

be
think
innovate

GRUNDFOS 

OPTIMISE YOUR NETWORK TO IMPROVE YOUR BUSINESS

Grundfos iSOLUTIONS CLOUD for Wastewater Networks is a cloud-based solution to optimise operation and ease expansion or repair of your wastewater network. Grundfos iSOLUTIONS CLOUD for Wastewater Networks can identify infiltration water by monitoring actual flow in sewers and do predictive maintenance to save energy and labour before a breakdown occurs.

Grundfos brings a depth of application and solutions knowledge that means our digital water management products truly add value. We are perfectly placed to deliver an optimisation module for wastewater collection systems that improves knowledge of what is going on in the network, saves hours in operations and increases efficiency.

FLEXIBLE SOLUTIONS TAILORED TO YOUR SYSTEM AND BUSINESS

You get a high degree of flexibility, with digital solutions and services that match requirements, which can be further adapted to your exact needs.

Grundfos iSOLUTIONS CLOUD for Wastewater Networks modules can be delivered as a part of Grundfos iSOLUTIONS CLOUD, as an intelligent audit report, or as an API into your SCADA system. The modules are therefore for use in addition to your regular SCADA/SRO system and work with all equipment in your system.

Modules available for Grundfos iSOLUTIONS CLOUD for Wastewater Networks are:

1. PREDICTIVE MAINTENANCE

Predictive maintenance and system optimisation indicates a potential optimisation in relation to pipes, pumps, valves, auto-coupling and the operational controller in the pumping stations.

- Data-driven optimisation suggestions which lead to documented decisions
- Improve not only the standalone pumping station, but the entire wastewater network

2. OVERFLOW WARNING

Proactive overflow warnings indicate events or times where the water level is increasing while the pumps is not performing at full capacity.

- Act to prevent the overflow situation

3. ACTUAL FLOW

Get actual flow in your sewer pipes and pits, and data on the

origin of infiltration in your system, whether rain-related or slow infiltration-related.

- Minimise infiltration
- Potential savings in the wastewater network and at the wastewater treatment plant
- Redesign prioritisation

4. INFILTRATION FLOW

Event-based infiltrating flow, and the daily flow profile correlated with the precipitation profile.

- Differentiate between rain-dependent infiltration and groundwater infiltration using real data from your wastewater network

5. PUMPING STATION CAPACITY UTILISATION

An audit of pumping station and pump function shows the amount of water that is being moved compared to the full capacity.

- Know which is the size of your pumping station and what needs to be optimised (asset management)



**PREDICTIVE
MAINTENANCE**



**OVERFLOW
WARNING**



ACTUAL FLOW



**INFILTRATION
FLOW**



**PUMPING
STATION CAPACITY
UTILISATION**

ADDING VALUE WITH MODULES THAT FIT YOUR NETWORK

With a detailed understanding of pumps, pumping stations and sensors in your network, we have designed a range of modules that fit the pumping stations in your network, no matter who has supplied the equipment installed in the field.

By getting data about your actual flow and from different data points in your wastewater network, you can predict what happens. This solution is designed to provide you with data-driven realities about your wastewater network using a holistic approach, and you never miss an opportunity for optimising your wastewater network.

THIS IS HOW YOU BENEFIT:

Predictive maintenance

A new way to optimise your asset management, which prolongs your equipment lifetime and saves hours in out-of-hours alarms/breakdowns. Knowing what is going on in your wastewater network provides opportunities for insightful remedies for detected anomalies in the system. Furthermore, the solution gives you an indication of the type of anomaly, so you bring the right tools and parts for resolving the situation effectively.

Maintaining and improving operational reliability

Utilise data from the network to pinpoint your optimisation effort and to plan the dispatching of service crews into a proactive schedule to remove obstacles in the system before your equipment stops working.

Minimising overflow

A proactive warning for overflow, which helps avoid the potentially costly and serious consequences of overflow events. The overflow function gives you a warning in advance of high water alarm with an indication of where the pumping system does not operate optimally, which means that you can act before the potential overflow situation.

Expanding your network

With greater insight, knowledge and analysis of your network, you can easily prioritise where to expand or renovate your wastewater network. You can follow the actual flow of wastewater in your sewers and pits, which also helps you understand the load at the wastewater treatment plant.

Operational insights and overview

You get insights into your wastewater network, transforming pumping stations into a function of moving water with the least effort in terms of energy or hours. This gives you transparency, accountability and tangible results.

Keeping business performance high

A thorough overview and analysis of your network together with time saved on reporting and identifying problems means you save on your investment with knowledge of available and required resources. Effective planning and increased efficiency improves your bottom line.



About Grundfos iSOLUTIONS for Water Utility applications

Grundfos iSOLUTIONS is our approach to adapting intelligent technology with precision to deliver optimal performance, total energy efficiency, and ultimate reliability in your system. Grundfos iSOLUTIONS CLOUD is the platform for our comprehensive control, communication and remote management products that maximise system capacity while minimising maintenance requirements.

We have designed digital services aligned specifically to your business needs, and our services and solutions are built on over 70 years of industry knowledge and pioneering innovation.

For Water Utility applications, Grundfos is constantly expanding the range of intelligent cloud-based services built on the Grundfos iSOLUTIONS CLOUD platform. Your system will always be compatible with a Grundfos cloud-based solution, even with third-party components.