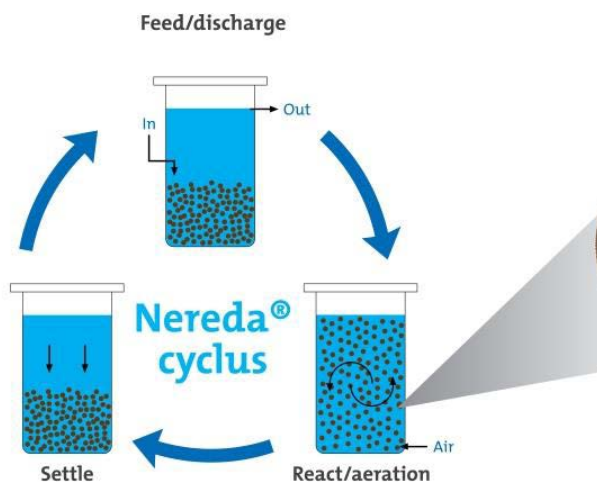


Aquasuite[®] Nereda[®] Controller



The AquaSuite[®] Nereda[®] Controller is a smart, integrated process controller for Nereda: the cost-effective and sustainable wastewater treatment technology using the unique features of granular aerobic biomass. The controller not only ensures fully automated plant operation, reliable performance and ease-of-operation but also optimized and energy-efficient treatment. It even enables remote control plus real-time remote support from Royal HaskoningDHV.

What it is

The AquaSuite Nereda Controller is the process controller tailored to making the operation of Nereda plants robust, efficient and easy. The Nereda Controller is integrated with the plants PLC/SCADA and ensures optimal master control of the various sequencing batch cycles of the Nereda process. The controller is PC-based and meets the international ISA-88 standard for batch control.

Why it is important

The Nereda technology is based on optimized sequencing batch cycles. Duration and process parameters in the various cycle steps must be adjusted to assure optimal and efficient performance while for example water flow, water composition and temperature fluctuate. The Nereda Controller automates these adjustments and makes effective use of the extensive experience of the Nereda process specialists.

Furthermore the Nereda Controller provides large flexibility for future extensions or upgrades. For example, if in future the number of Nereda reactors must be increased to cope with increased water flows, only a simple reconfiguration of the controller will be required.

In addition, the PC-based controller enables logging of process parameters. These parameters are transformed into smart process performance information (the so-called Blue Reports), providing detailed insights into process fundamentals and kinetics. This way the Nereda Controller is an important instrument in plant performance evaluation enabling extensive optimization and early-warnings.

Last but not least, the Nereda Controller is designed to facilitate remote control.

How it works

The Nereda Controller basically performs the following functions:

- dynamic scheduling of reactors
- dynamic sequence control of individual reactors
- optimized control of reactor processes
- visualization

Scheduling

The scheduling function of the Nereda Controller ensures that each reactor is filled at exactly the right time to exactly the right amount. The dynamic control can be based on e.g. buffer tank levels, feed flow characteristics and/or process specific parameters in the sequence of individual reactors.

Sequence control

Nereda Controller uses specific recipes (or sequences) to control the Nereda process. Dynamic recipe execution is orchestrated by the Nereda Controller. The Nereda Controller generates and issues commands and parameters to the Process Control System which in turn executes the basic module control, including equipment and process protection.

Optimization

The Controller smartly uses process know-how to optimize plant performance, e.g. dynamic oxygen set-points are calculated from process parameters to minimize energy costs.

Visualization

Nereda Controller generates clear web based visualization pages. These pages are easily integrated in your SCADA or operator control panel and can also remotely be accessed.

Services

We offer you a complete service portfolio. From supply, configuration, installation, testing and commissioning of the Nereda Controller to operation support and remote monitoring of the performance of the Nereda Controller and on-line assistance whenever necessary.

www.nereda.net