

PUMP

Fully Biological Wastewater Treatment
for New Construction and Retrofitting
using the SBR Process





SBR

Small Sewage
Treatment Plants
in a 4-Phases -Cycle

Proven **Solutions** for Fully Biological Wastewater Treatment

Although most households are connected to the sewage system, in rural areas this connection is often not possible and therefore your own responsibility as a landowner is required. The wastewater must be removed in such a way that the valuable groundwater is not endangered.

AQUATO®'s sewage plants are energy efficient and highly effective. Our SBR systems provide exceptional stability, using well-established components with the best technology available today. The systems are wear-resistant and easy to install, making regular maintenance effortless.

The AQUATO® PUMP system contains state-of-the-art technology. It is adjustable in height and can be used in all tank variations. The mounting elements, for either chain or partition wall attachment, ensure the system is flexible and many sided to use.

Outstanding Cleaning Performance

These four phases of the SBR process run in modern single or multi-chamber tanks – or easily, without much structural changes, in existing older tanks.

All processes in the plant take place according to a regular cycle, which is specified by the control unit.

Phases of the SBR procedure:

1. Charging Phase

Part of the wastewater, which has been collected inside the primary treatment and which has been cleared from solids, is pumped to the reactor.

2. Aeration Phase

The waste water inside the reactor chamber is intermittently aerated and mixed. As a result, activated sludge is created which contains the microorganisms needed for wastewater treatment. Aeration and break times can be adjusted to the actual needs of the biology.

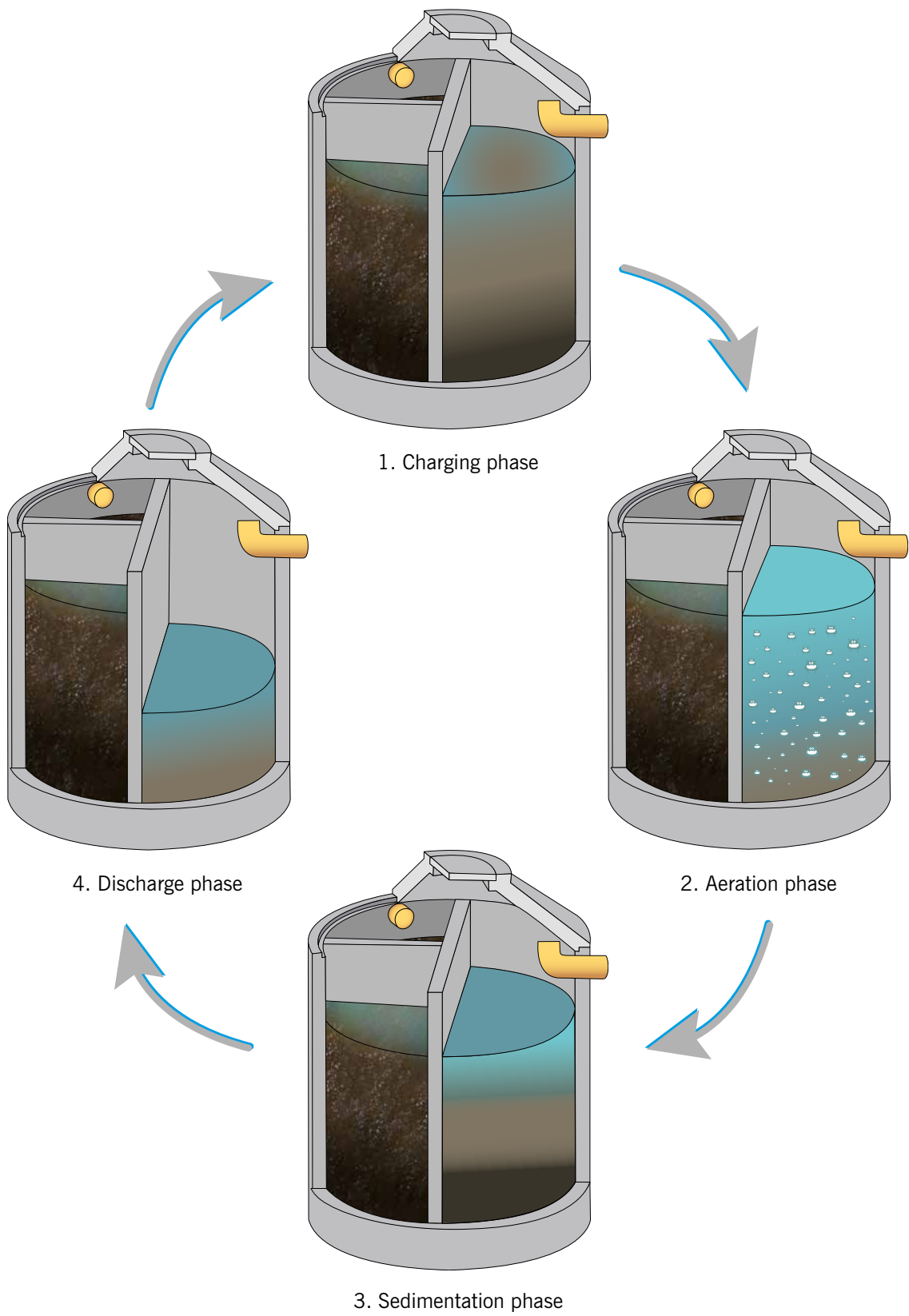
The excess sludge is pumped back to the primary treatment, from where it will be disposed together with the sewage sludge. If no wastewater is added during aeration phase, the plant is able to automatically switch to the energy saving mode.

3. Sedimentation Phase

The activated sludge settles down to the ground of the aeration tank. The cleared water separates in the upper part of the tank.

4. Discharge Phase

The clearwater is pumped into the outlet, out of the tank.



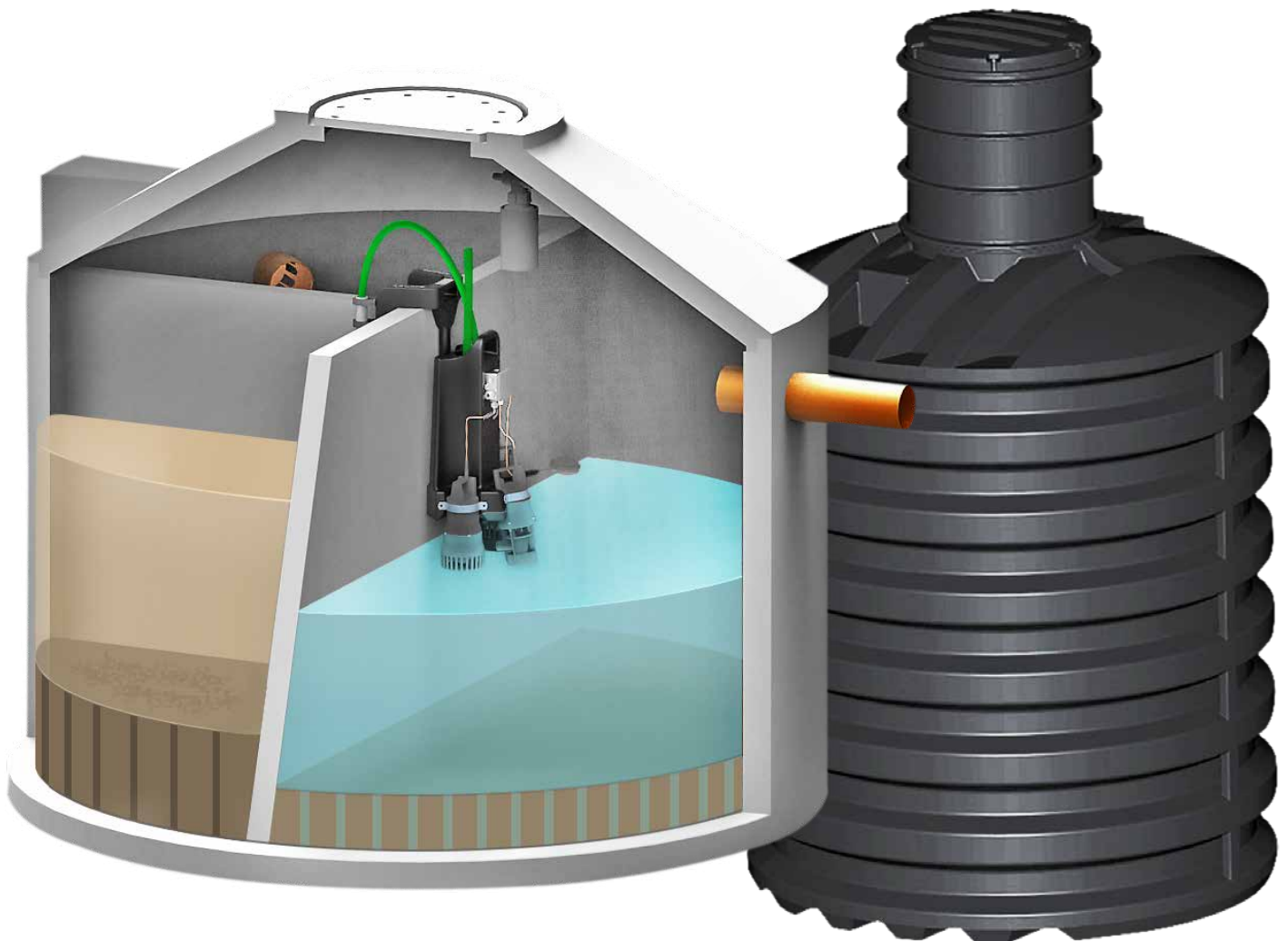
PUMP

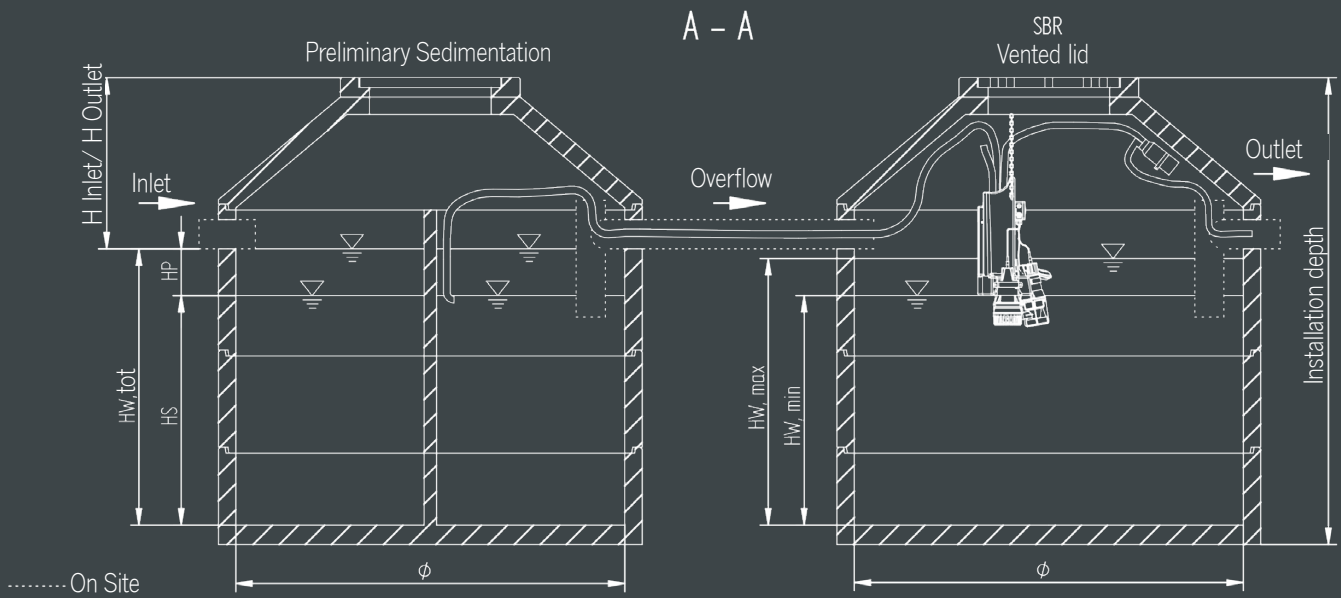
New Construction
and Retrofitting
made easy!

Flexible Use
in Concrete or
Plastic Tanks

The AQUATO® system PUMP can be integrated into a concrete or plastic tank, as new construction or retrofitting.

Your fully biological sewage treatment plant can be set up in no time at all!





Variable Installation Options

The AQUATO® system PUMP is very flexible for sewage plants up to 50 persons. It can be used in 1-tank system as well as in multi-tank systems. The shape of the tank is also irrelevant, whether round or square, the AQUATO® system can be installed. Depending on the requirements, different chambers or tanks of the plant can be used as reactors.

If there is no partition wall in the case of multi-tank systems, the PUMP can also be hung on chains or crossbars.

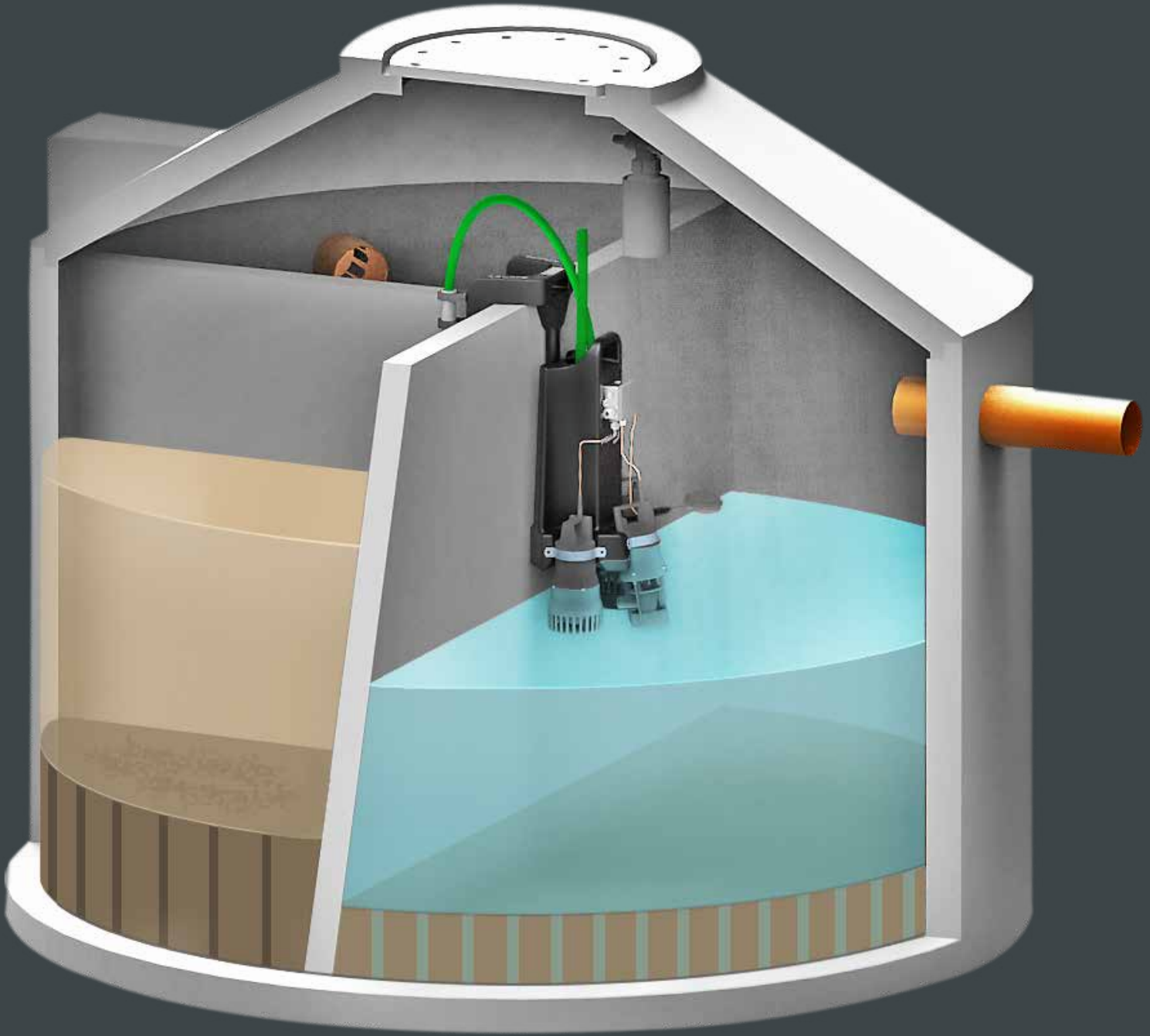
PUMP

Small Sewage Treatment
Plant with Pump Technology

Compact, Economical,
Efficient

- + For all Approved Tank Variants
- + Easy Handling and Maintenance
- + Energy-Efficient and Powerful
- + Individual Adjustment Options



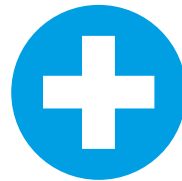


PUMP

Exceptionally Flexible!



Advantages



- + High level of operational safety due to modern technology
- + Long lifecycle due to proven units
- + Significantly below required effluent limits
- + Simple and safe assembly with ready-to-plug units
- + Suitable for any approved tank types
- + High adaptability through special adjustment options
- + Low maintenance costs due to easy handling
- + Energy efficient with high performance
- + Energy- saving due to integrated economy mode
- + Minimal noise emission of pumps and aerators

AQUATO® PUMP

The AQUATO® PUMP wastewater treatment system consists of state-of-the-art pumping technology and can be adjusted in height and therefore be connected to all tank versions. Due to its assembly modules like chain and partition wall attachment it can be used flexible and versatile. The aeration is carried out by a submerged aerator.

CONTROL

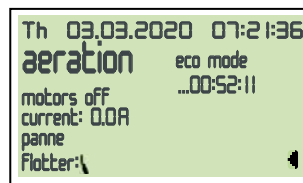
K-Pilot 8.3

The K-Pilot 8.3 control unit is the central unit for the AQUATO® PUMP small wastewater treatment plant. This component controls the individual units and ensures that the clarification process corresponds to our high quality benchmark. The plant works according to the SBR principle.

It is suitable for effluent classes C and D.

The AQUATO® PUMP comes with a control cable which can be easily connected to the control unit by a 7-pin plug.

An additional warning lamp, flashing light or an acoustic alarm device can be linked to the control unit via a potential-free contact.



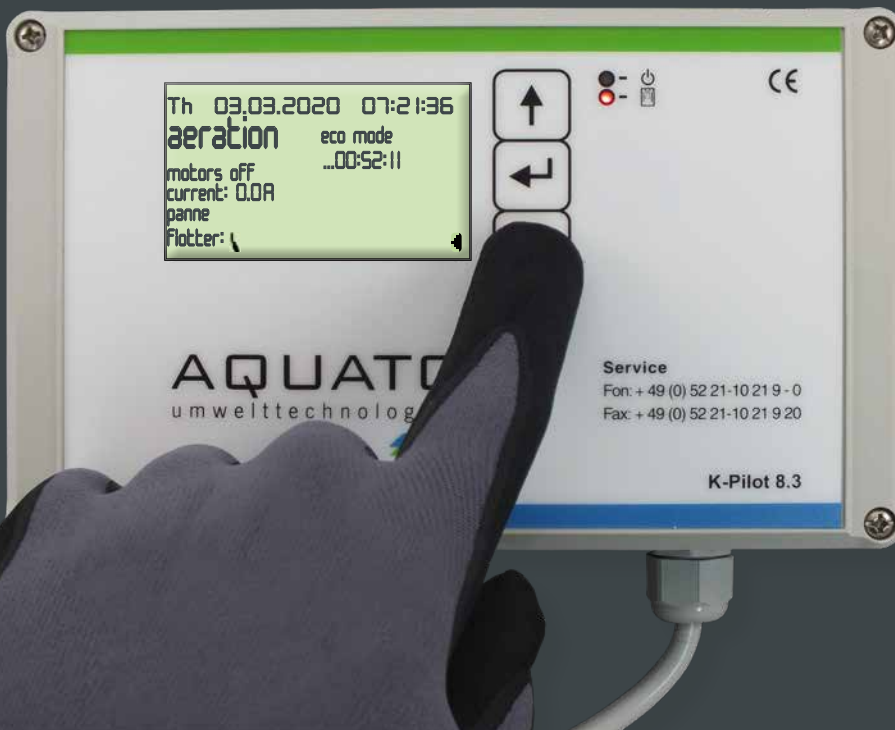
The control unit is operated via a 3-button control panel with a large graphic display.

The menu simply navigates through the setup and system launch.



ADVANTAGES

- + Userfriendly, easy menu navigation
- + Simple read-out of operating hours
- + Large graphic display
- + Electronic logbook
- + Off-grid power failure detection
- + Manual operation possible
- + Small and handy



Outdoor Cabinet (optional)

External cabinet solutions to accommodate the control unit. Not only cost-effective but also a reliable protection from the elements. The casing consist of fibre-glass reinforced plastic (GRP) includes a built-in power socket.



MODULES



Additional cleaning stages can be: H-Module for UV-Desinfection

With an UV module the highest level of wastewater treatment can be reached. The precious water is now available, e.g. for garden irrigation. But environmental protection and water pollution control are taken into account as well is being taken care of. But environmental protection and water pollution control are taken into account as well.

The disinfection performance of an UV system is based essentially on the fact that each volume element – as it flows through the UV reactor –receives the required UV dosage. To ensure this, the radiation field and hydraulics in the UV system are perfectly adjusted.



ADVANTAGES

- + UV module as an additional treatment stage
- + Ideal maintenance due to installation in outdoor cabinet
- + Low maintenance with high operational safety
- + In stainless steel housing
- + High reliability
- + Can be retrofitted for sewage treatment plants that are already in operation

Let us advise you about further possibilities!

P-MODULE Phosphate precipitation as an additional treatment

C-MODULE External carbon source during underload operation

CI-MODULE Chlorine disinfection as downstream hygienisation

Notes

Underload !

AQUATO® sewage plants offer full cleaning power - from just one person and with low water consumption! But even after your vacation or any other break it immediately goes on again - always reliable with maximum operational safety and compliance with the legal discharge values.

Declaration of Performance

According to European guidelines, AQUATO® small sewage treatment plants are examined and documented for all their standardized effectiveness parameters by notified bodies. The plants are well tested on test fields and a declaration of performance from the manufacturer according to EN 12566-3 is available.

If required, declarations of performance for our systems can be requested from AQUATO® using the contact options below:

fon +49 5221 10219-0 info@aquato.de



Garden-friendly installable!





Presented by:



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