



AQUAmax[®]

Waste Water Treatment Systems

Effective. Innovative. Sustainable.



TOP-SELLING
The original: more than 45.000
AQUAmax[®] wastewater treatment
plants installed worldwide!

AQUAmax[®] BASIC SBR small wastewater treatment plant



Optimum wastewater treatment belongs to the best that you can do for the environment around your home if you have no sewer connection!

Therefore rely on the often distinguished, completely biological AQUAmax[®] small wastewater treatment plants – for remote houses, for new construction and retrofitting in houses, the optimum solution for every area of application.

AQUAmax® BASIC: the easy solution for up to 16 PT or 2.4 m³ wastewater per day*!

All that you need for a reliable wastewater treatment is one tank with three separated chambers hidden under the garden, an AQUAmax® installed in these, a sewer feed pipe from the house into the wastewater treatment plant and a system to discharge the treated wastewater into the open countryside. Everything else is dealt with for you automatically by the AQUAmax®. Guaranteed!

Top treatment performance

Up to 99% treatment performance in only 8 hours!

The AQUAmax® treats the incoming wastewater in 3 cycles per day, each of which lasts for 8 hours.

First, the wastewater reaches the preliminary settling stage, followed then by the 4-phase cycle:

1. Charging phase

The water collected in the preliminary settling stage is passed into the treatment tank.

2. Treatment phase

The wastewater is treated in the 6 hour long treatment phase. Here, agitation, aeration and intervals alternate.

3. Settling phase

During the settling phase the activated sludge settles at the bottom of the tank.

4. Discharge phase

The now clarified water is pumped out of the plant.



One pump less! ✓

Less electrical connections, less units, more security!

Safe and quiet ✓

All units are securely installed in the tank and not inside the house.

Durable ✓

A special architecture makes the AQUAmax® BASIC especially durable.

Future-assured ✓

Always up-to-date through the AQUAmax® modular system.

Low maintenance and spare part costs ✓

Less servicings, no high wear aerator.

Frame made from recyclable plastic – stable, maintenance-friendly and light. 10 years guarantee!

Using a patented flushing surge the pump and pipe system are cleaned of residual sludge before the pumping-out process. This protects the environment and relieves the available percolation.

German patent: DE 100 57 378

Through the special valve, newly developed by ATB, the submersible pump fulfils three tasks:

- Charging process of the SBR chamber according to the suction principle (German patent: DE 199 07 980)
- Sludge recirculation
- Removal of clarified water

Submersible motor aerator for fine-bubble aeration and gentle stirring in the treatment tank – developed specially for employment in small wastewater treatment plants.

Special level switch

The unique special level switch AQUAswitch®, integrated into the AQUAmax® pipe system, operates practically free of wear, cleans itself and switches with millimetre accuracy.

German patent: DE 10 2005 028 764.6



Only 2 units!

Less electrical connections, more security!

Due to the patented ball technology, the AQUAmax® BASIC needs one pump or magnetic valve less than conventional SBR plants. This means: less risk of failure, more security.

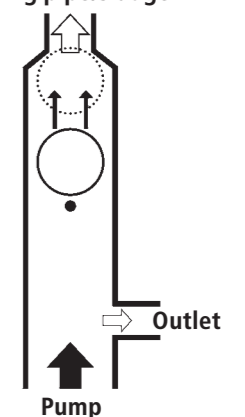
The principle: when the pump starts up, the wastewater is fed via a robust special valve into the charging pipe. This alternates - depending on the duration of pumping – between filling/sludge removal and pumping out.

Short pumping: triggers the filling phase of the SBR tank. *Long pumping:* the special ball seals the charging or filling pipe after a few seconds, the water now gets into the clarified water outlet.

Thus, a large and heavy pump - namely an electrical unit - is completely replaced by a small ball!

EU patent: 04 010 152.9

Filling pipe/sludge



Certified ✓

Various international approvals and CE conformity based on EN 12566-3 and therein described tests.

Comprehensive parts guarantee ✓

10 years for the frame, 24 months for all electrical and mechanical parts.

First-class discharge values ✓

Significantly undercuts the required discharge values!

Experience ✓

More than 45.000 wastewater treatment plants installed worldwide.

Prize-winning...

Environment Prize 1999 of the German Federal State of Mecklenburg-Vorpommern, Environment Prize Austria 2001, Founder Champion 2002, OWL Innovation Prize 2003, Financial Times Germany »Potential Innovation 2004«, »Finalist« Entrepreneur of the Year 2004, 2005 and 2006, »Finalist« Grand Prize of Small and Medium-sized Businesses 2005, »Winner« Grand Prize of Small and Medium-sized Businesses 2007, Innovation Quality Sea "TOP 100" 2006

AQUAmax® modular system awarded with the OWL-Innovation Prize:



Technical set



AQUAmax® BASIC

Area of application	Treatment of domestic wastewater
Approval	C, D, D +H
Nitrogen removal	inclusive
Total no. of inhabitants	4 - 16
Connected load	230 V / 50 Hz
TÜV certificate	Explosion protection
Treatment performance (24 h composite sample)	BOD ₅ : ≤ 15 mg/l COD: ≤ 75 mg/l NH ₄ N: ≤ 10 mg/l N _{org} : ≤ 25 mg/l
Guarantee	10 years for the frame, 24 months for all electrical and mechanical parts

Control centre aControl®

Standard with every AQUAmax®!

- Comfortable, intuitive operation via 4 keys and illuminated display (just like a cell-phone!)
- Logbook function: over 500 messages are stored (alarms, modifications to run-times, power failures etc.). This eases service and reduces verifiably the resulting costs.
- Integrated bio-start-up phase.
- Original UVS® (voltage failure alarm) with accumulator – no battery change necessary.
- Automatic patented flushing function for pump cleaning – for less suspended solids in the effluent.
- With weaker loading or holidays fully automatic energy-saving mode.
- Spray water protection (IP65).

Accessories



Control centre proControl®

Over and above aControl® this control offers the following possibilities:

- Connection possibilities for further level switches (backwater detection via additional flooding alarm etc.).
- Modification of cycle times by the service technician at any time.
- More tolerant towards over-voltages.

- Expanded logbook and diagnostic functions
 - Read-out capability for logbook.
 - GSM transmission of up to 15 error messages possible (only with additional, special GSM module. On request); GSM transmission of logbook in preparation.
- This control is embodied in AQUAmax® plants with UV or with phosphate removal.



AQUAmax® remote control

GSM transmission module (as accessory to aControl®). With this a fault in your wastewater treatment plant can be transmitted to a cell-phone of your choice via the GSM network.

- No special software required
- Simple adjustment via the cell-phone SIM card
- Transfer of the credit balance using prepaid cards
- Transmission of receiver quality
- Variable alarm texts possible

- Transmission of power failures; UVS® inclusive.

The system is adjusted simply via the telephone number store of the SIM card (card NOT included) and is immediately operational. Additional uses: there are three further alarm inputs available which you can use domestically (e.g. for fire, water, break-in etc. – sensors are however not included). Usable with almost all German mobile phone suppliers.



Further AQUAmax® accessories

Switch cabinet for outside installation

If the distance to the house is very large the control should be installed near the plant.

Coarse material filter



This filter is so designed that it can retain the majority of "problem substances" and can clean itself with each pump stroke. It is thus almost maintenance-free and increases the security of the pump and aerator.