



BATCHPUR WASTEWATER TREATMENT PLANTS
CONSISTENTLY AND SUSTAINABLY
CLEANING!

For municipalities, hotels, restaurants
residential, recreational, and commercial facilities



www.batchpur.com

OUR EXPERIENCE AND THE WHOLE **BATCHPUR KNOW-HOW FOR YOUR PLANT**

Individual solutions for your requirements...

Batchpur supplies the technology for small wastewater treatment plants worldwide.

We also design individual technological solutions and special concepts, tailored to your requirements and the wastewater to be treated. The know-how transfer is guaranteed in cooperation with our team of experts. With our many years of experience in the field of wastewater treatment plants for municipalities, hotels, restaurants, residential and recreational facilities, as well as commercial enterprises (such as slaughterhouses, meat processing, food industry operations, breweries), we can assist you.

We will find the right solution.

Support from the beginning ...

Site assessment and planning are a critical phase in the project cycle. If, for example, the size of the wastewater treatment plant is not correctly determined or if the special features on site or at the object are not considered, this can lead to considerable problems in later operation or to subsequent investments. That is why we support you professionally with our team and all our competence from the very beginning

If you must analyze complex wastewater problems, two state-of-the-art laboratories with outstanding equipment and a team of experts are at your disposal on request.

At Batchpur the service goes beyond the sale of the plant technology: also, afterwards we are at your side with analysis, training, and technical support. With the possibility of remote monitoring and control, we can monitor plants worldwide.

Security for you.

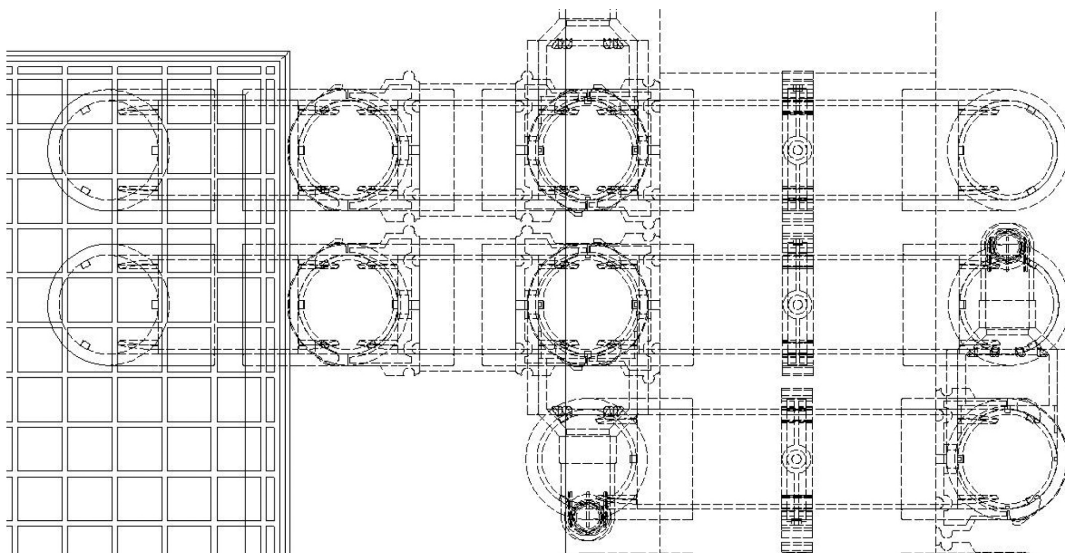




TACKLE THE ISSUE AT
THE RIGHT PLACE

WE WILL FIND THE SOLUTION!

KNOWLEDGE, ANALYSIS AND PLANNING



Technical consultation and support in planning are our daily business

No matter whether you want to use factory-made tanks made of concrete or plastic, a structure in cast-in-place concrete or a plant in a steel container: We are at your side with our experience of over 30,000 small wastewater treatment plants. Our plants operate worldwide under all climatic conditions with outstanding treatment performance.

We know how to realize a project efficiently and successfully. You can rely on our team!

INDIVIDUAL TANKS VARIANTS FOR EVERY NEED

Durable

The required service properties of a concrete tank are maintained throughout its entire service life.

Dimensionally stable

Concrete can withstand high static earth pressures even when unfilled.

Watertight

Tight concrete structure due to state-of-the-art production technology.

Unbreakable and resilient

Optionally available up to SLW 60.

Easy installation

The tank is placed in the excavation pit by crane or excavator. The working space can usually be backfilled with existing soil.

Buoyancy-proof

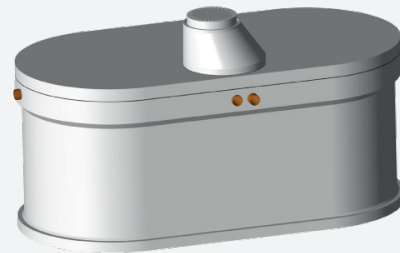
High material weight prevents buoyancy even at high groundwater levels.

Ecological

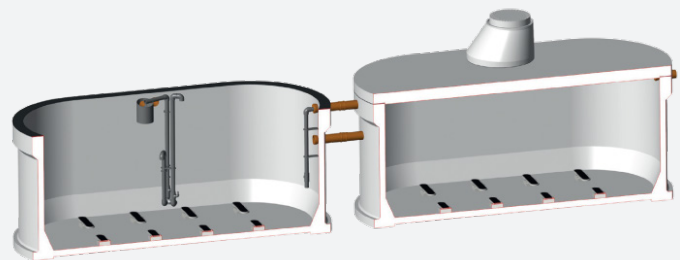
Only natural products (cement, gravel, sand, hard rock, and water) without chemical modification are used in production. The CO₂ emission during production is low.

The tanks are completely recyclable.

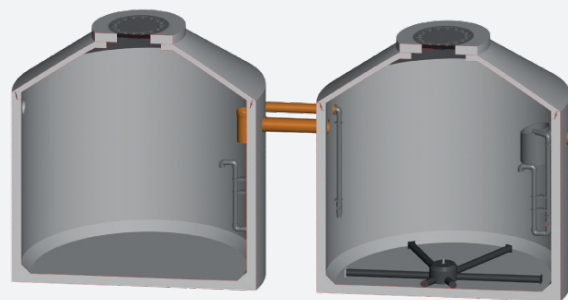
... 60 to 180 P.E.



Design example for a 60 P.E. aero-plant in a jumbo tank



120 P.E. aero-plant in 2 jumbo tanks



Monolithic round tanks with aero-plant technology

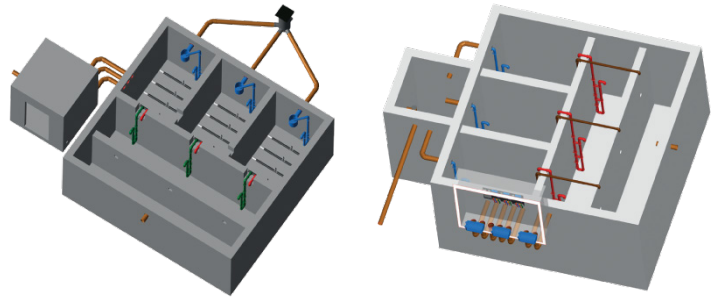
... 60 to 180 P.E.

WE PLAN YOUR PLANT

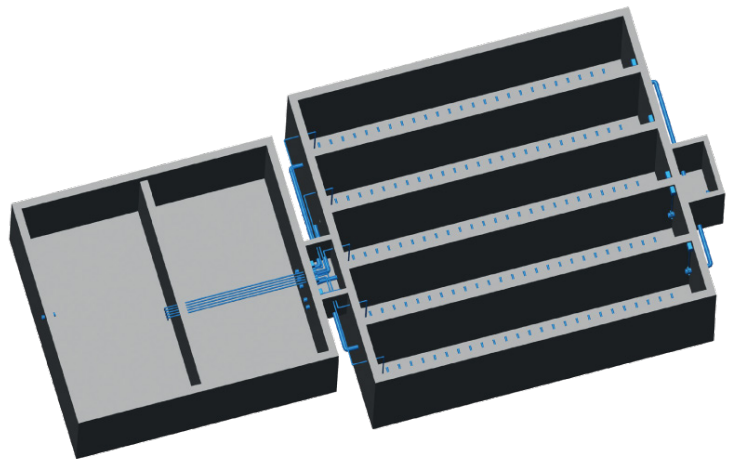
With the expert team of Batchpur you get an economically oriented and ecologically balanced wastewater treatment plant concept.



...up to 800 P.E.



Design examples for 300 P.E. SBR plants in in-situ concrete construction



SBR-plant for 1500 P.E. – energy optimized version (feeding and clear water discharge without pumps)

... up to 1500 P.E.

MATURE AND PROVEN SUCCESSFUL PURIFICATION PROCESSES!

ADVANTAGES AND QUALITY OF THE PURIFICATION TECHNOLOGIES



ADVANTAGES OF THE BATCHPUR SBR TECHNOLOGY

- Highest purification performance with carbon and nitrogen elimination, optionally with phosphate elimination, disinfection, and micro pollutant elimination
- High operational safety without submersible pumps
- Depending on the system, air lifter with a free ball passage of 75 or 90 mm
- Available with AIR-Boost technology
- Patented, stepless height level measurement
- Stepless automatic aeration
- Multi-line, illuminated graphic display
- Simple, self-explanatory menu navigation
- USB port as a standard for user-friendly software updates via USB stick
- WIFI module as a standard
- Automatic excess sludge discharge
- PC software for changing parameters, reading out operating hours and messages, updating software and remote control (use of optional modem)



ADVANTAGES OF AERO SBR TECHNOLOGY

- SBR plant with aerobic sludge stabilization
- Tested purification performance as small wastewater treatment plants by the accredited testing institute PIA GmbH
- Advantages by avoiding the formation of digester gases:
 - Significant odor reduction by avoiding the formation of hydrogen sulfide
 - No emission of climate-damaging methane gas
 - Avoidance of corrosion on concrete tanks due to aerobic sludge stabilization
- Highest purification performance with carbon and nitrogen elimination, optionally with phosphate elimination, sterilization, and micro-pollutant elimination
- ALC technology as a standard
- High operational safety without submersible pumps
- Depending on the system, air lifter with a free ball passage of 75 or 90 mm
- Available with AIR-Boost technology
- Patented, stepless height level measurement
- Stepless automatic aeration
- Multi-line, illuminated graphic display
- Simple, self-explanatory menu navigation
- USB port as a standard for user-friendly software updates via USB stick
- WIFI module as a standard
- PC software for changing parameters, reading out operating hours and messages, updating software and remote control (use of optional modem)

AIR-BOOST TECHNOLOGY

Small diaphragm compressor

For air lifters and two aerators



Large diaphragm compressor

Automatically switched on by the control system for aeration



We have developed the AIR-Boost technology to:

- meet the requirement of the Water Resources Act for the use of energy-efficient technologies,
- enable the operator to operate the wastewater treatment plant in an energy-efficient manner,
- ensure safe plant operation.

Often, the compressors are used for all functions without considering how much air the individual function requires. In fact, however, there is considerable variation in demand here: Most air is required for oxygen input during aeration.

The Batchpur mammoth pumps only need as much air as required for the hydraulic conveying capacity. The new AIR-Boost technology controls the Batchpur compressor concept both intelligently and consistently: A small compressor takes care of the compressed air supply to the mammoth pumps. Since this compressor is also used for aeration, further powerful compressors are automatically switched on by the control system – if necessary – during a more intensive aeration phase and the air performance is increased during aeration. **In this way, AIR-Boost technology provides a real advantage for the energy consumption of the plant.**

With our technology, power is only used where it is required.

ALC®-TECHNOLOGY

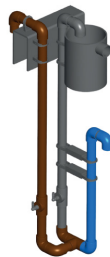
The clean solution comes from Batchpur:



In wastewater treatment plants, the entry of sludge particles into the device for clear water removal occurs during aeration due to the system. With ALC® technology, the pipes for the clear water removal are flushed out with treated wastewater, thus removing the sludge particles that have entered the system. This is an enormous advantage for systems with subsequent infiltration. The ALC® technology has been extensively tested at the PIA's accredited test institute. **The purification performance is outstanding. This technology is exclusively available for wastewater treatment plants from Batchpur.**



Problem:
Sludge particles get into the device for clear water removal.



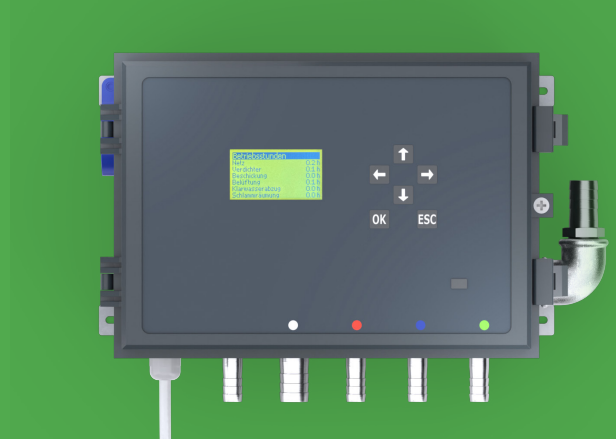
Solution with ALC® technology:
The sludge is removed.



Result:
Clean wastewater in the clear water discharge.

IN THE FOCUS:

CLEAR TECHNOLOGICAL ADVANTAGE

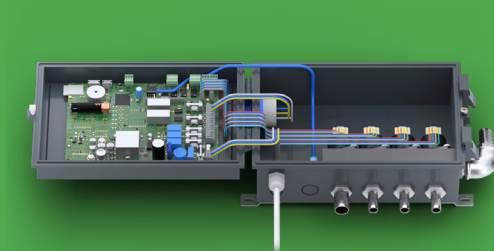


EASY...CON CONTROL WITH AIRSTEP® STEPPER MOTORS

The Batchpur SBR treatment plants are characterized by their new intelligent easy... con control module.

The advantages of the new control system :

- Low energy consumption in standby mode below 1 watt
- Large, illuminated graphic display
- Convenient 6-key easy operation
- Up to 7 stepper motors can be used
- All outputs individually fused via microfuse
- Stepper motors can be exchanged individually
- USB connection for user-friendly software updates
- WIFI module as a standard
- Optionally available with modem for complete remote monitoring or for forwarding of status messages as SMS
- Easily expandable to higher cleaning levels
- Easy connection of additional sensors such as oxygen-, conductivity-, or redox-sensor



Six independently fused circuits on the circuit board.

Your advantage: Safe plant operation!

Optionally available (also retrofittable) with up to 7 stepper motors for e.g. pneumatic phosphate elimination or for nutrient dosing.

One control for all cases!



YOU CAN SEE AND FEEL IT
PROVEN OVER MANY YEARS!

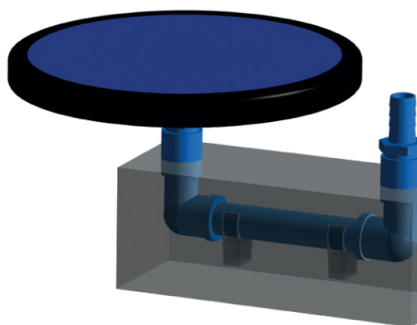
QUALITY IN MATERIAL AND PROCESSING

Stainless steel fittings

The components of the wastewater treatment plant have a significant influence on reliability, service life and operating costs. Because we know this, we only use components that also meet your requirements in terms of function and service life. For example, we do not use plastic parts for all hose connection fittings, but stainless-steel fittings.

Service-friendly aerators

The aerators of the Batchpur and Aero SBR wastewater treatment plants are manufactured in such a way that an aerator change can be carried out in a few minutes.



High-quality, removable disc aerators

By the way: The complete piping of the aerator disc is made of stainless steel.

This is the diameter of one of our air lifters (mammoth pumps; 9 cm diameter).

You see:

An air lifter with this free ball passage usually do not clog and guarantees you **high operational reliability**.

AIR LIFTER

It doesn't matter whether it's a submersible pump or a pneumatic air lifter. Both are designed to move wastewater in the septic tank. Since wastewater is a very "aggressive" medium (corrosive and abrasive), these components are also exposed to these corrosive and abrasive chemical reactions. The electric submersible pumps, very often used in SBR plants, have three serious disadvantages: They show much more wear due to these chemical influences and are more maintenance-intensive, as they can become clogged and require reliable explosion protection due to contact with the gases in the tank.

We use air lifts that work without an electric drive unit in the tank and that are almost clog-free, since they do not contain any rotating parts.

THE SERIOUS DIFFERENCE

PROCESSING ACCORDING TO INDUSTRY STANDARD PN10

In addition to technology and cost in ongoing operation, the biggest differences are in the processing of the installation kits of wastewater treatment plants.

When comparing Batchpur with other systems, note whether the plastic pipe systems made of HT pipes are only plugged together. The cost of this design is much lower in production and is only used for pressureless operation in the field of building services. Since these push-fit connections are not designed for pressurization, the joints are often stabilized with additional screws.

Batchpur, on the other hand, uses exclusively pipes with tested industrial standard for the air lifter, which are glued to pressure-resistant pipe connections up to 10 bar according to the standards. Of course, the production of these air lifters is more complex and cost intensive. A quality feature well worth its price.

SMART ENERGY SAVING!

The energy consumption of a wastewater treatment plant depends to a large extent on the composition of the wastewater and the amount of wastewater to be treated.

A huge amount of wastewater usually means a higher energy input, whereas small amount wastewater means a lower input of energy for wastewater treatment.

Please note that a so-called "automatic adjustment" to the wastewater volume is often only a "two-point control". By means of a pressure sensor or float switch, two operating states are determined in the system: Normal operation and vacation operation (also called economy operation or vacation operation). In principle, this is a very simple control system that can only detect two operating states in the system accurately.

But in terms of wastewater generation, ultimately no two days of the week are alike. There are cycles in which no wastewater flows in at all – at night, for example – and there are cycles in which the plant's buffer is filled to 10%, 70% or 100%. If a wastewater treatment plant has only two-point control, all the different loading scenarios can ultimately only be handled by two different control commands.

Thus, these plants often run at 100% to ensure cleaning performance even if there is only a low wastewater load.

Batchpur works with a stepless detection of the wastewater load in the SBR reactor. This technology is extraordinary and protected by a European patent. Only with a stepless detection it can be guaranteed that the energy is supplied as required by the wastewater load.

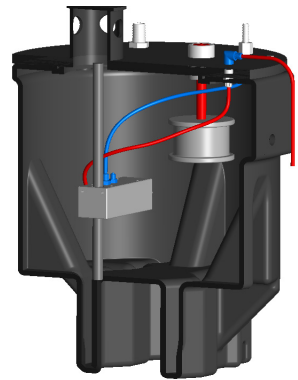
EXTENDED CLEANING STAGE!

For example, if the phosphate content in the effluent of the wastewater treatment plant is to be limited, or the treated wastewater is to be sterilized: We have the right solution. We also have the solution for the so-called 4th purification stage, i.e., for the elimination of non-biodegradable substances such as drug residues, antibiotics, etc.

PHOSPHATE ELIMINATION WITH P-SAFE®

Phosphate elimination is required to reliably maintain a concentration of phosphate in the effluent of the wastewater treatment plant specified by the competent authority. With the P-Safe® technology, we have developed a process that offers many advantages:

- Quantity-proportional addition of precipitants through exact recording of the wastewater quantity to be treated with a patented measuring method (European patent). The precipitants are used in a resource-saving manner.
- Dosing volume can be easily adjusted by an adjustable dosing unit.
- The pneumatic dosing works wear-free. No electric peristaltic pumps are used, where the hoses must be changed again and again due to wear – so no expensive service calls – always trouble-free operation.
- Continuous level monitoring in the control system.



DISINFECTION WITH THE BATCHPUR UV-LAMP SYSTEM

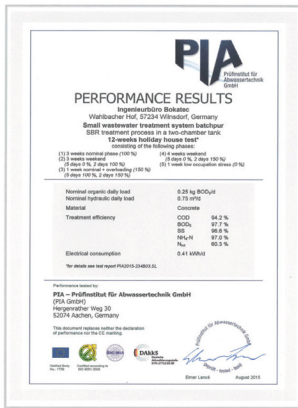
The biologically cleaned, clear wastewater can be sterilized in a simple way with the Batchpur UV immersion lamp system. Depending on the size of the plant, different numbers of lamps with different power are used. The ballasts are monitored automatically via the control system and can be controlled and adjusted in conjunction with the optional remote monitoring.

Professional technology for the disinfection of wastewater.



ELIMINATION OF MICRO-POLLUTANTS WITH C4C®

Batchpur is a technological leader in the field of decentralized wastewater disposal. We are intensively involved, and, within the framework of a major research project, we have developed a technology that enables us to eliminate non-biodegradable micro-pollutants in treated wastewater. If your project has corresponding requirements (for example in a water catchment area), please contact us. **We have the right solution for you!**



CONSISTENT AND UNCOMPROMISING!

CERTIFIED HIGH PURIFICATION PERFORMANCE!

A basic requirement for a wastewater treatment plant is a high cleaning performance. Small wastewater treatment plants, i.e., plants up to 50 P.E., are tested for cleaning performance over a period of 38 weeks in accordance with the European standard EN 12566. For small wastewater treatment plants over 50 P.E. no test is prescribed. **However, Batchpur has independently tested a 60 P.E. Aero plant with aerobic sludge stabilization on the accredited test field of the PIA GmbH of the RWTH Aachen. Thereby we have achieved outstanding cleaning performances. This independent test gives you security in your investment decision.**

ENERGY EFFICIENCY!

Energy efficiency is not only a necessity under German water law; rather, but energy efficiency naturally also pays off for the operator of the wastewater treatment plant. We have systematically designed our wastewater treatment plants to be energy efficient. The batchpur SBR process and for the Aero SBR process with aerobic sludge stabilization achieved the lowest energy consumption for small wastewater treatment plants of the respective type in Germany in the 38-week tests according to the European standard 12566 Part 3 A2. In the same way we implement our concept for wastewater treatment plants from 51 -1500 P.E. Energy-efficient controls and compressors, intelligent and patented measuring methods as well as the adaptation of the components to the required task ensure a long-term, energy-efficient operation of the plant.

SUSTAINABILITY AND ECO-EFFICIENCY

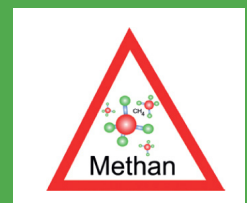


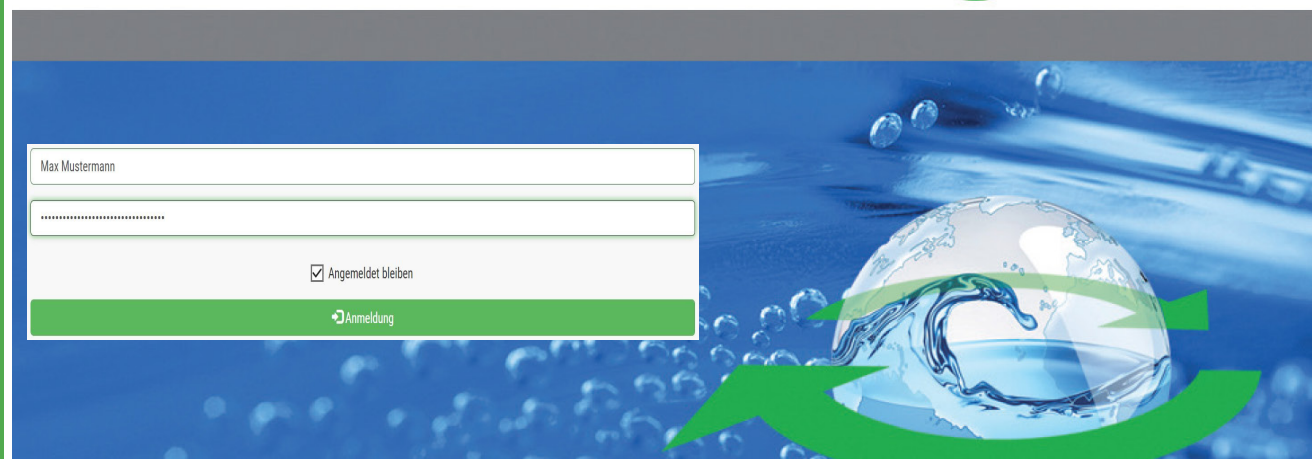
OPTIMAL CO₂ BALANCE!

Even an energy-efficient, technical wastewater treatment plant still consumes energy. Here, too, batchpur has taken an excellent path with ZERO-C. The energy, which the small sewage treatment plants still consume despite the energy-efficient operation, we compensate completely by corresponding reforestation projects in South Africa and South America. If desired, we can also organize this for your project. The operation of the wastewater treatment plant can thus be climate neutral.

KEEPING CLIMATE-DAMAGING METHANE GAS UNDER CONTROL!

The emission of carbon dioxide is a very current and important topic in relation to the earth's atmosphere. In wastewater treatment plants that have a pretreatment system for sludge storage, such as so-called powerless plants, constructed wetlands and many technical plants such as fluidized bed plants with pretreatment, fixed bed plants with pretreatment and SBR plants with pretreatment, methane gas is produced by the digestion processes taking place. Methane gas is 21 times more harmful to the atmosphere than carbon dioxide. So we should put this topic in the foreground of the eco-efficiency of wastewater treatment plants. In aero technology with aerobic sludge stabilization, no decomposition processes take place. Therefore, no methane gas is produced in an aero sewage treatment plant. At the same time, no gaseous hydrogen sulfide is produced, which is largely responsible for the otherwise familiar odors of a wastewater treatment plant. This is an important reason for the decision, especially in the case of plants for hotels and restaurants. Concrete corrosion caused by hydrogen sulfide is also avoided. Good for the environment, good for the plant, good for your employees and guests and – good for you.





ONLINE MONITORING

THE PERFECT SAFEGUARD FOR OPERATORS!

The perfect safeguard for operators! The interface for the remote monitoring module is already present in every easy...con controller. By simply plugging in the modem, the controller connects to the easy...con web portal.

Error messages are forwarded immediately; once a day, all operating data are automatically stored and archived on the web portal server. This way, you can seamlessly document the functionality of your plant. The daily check of the Batchpur plant becomes a routine.

The service technician is informed and can act!

Every Batchpur system with a modem can be monitored by the Batchpur service technician with your permission. Even in the absence of the plant operator, maintenance work and test runs on the Batchpur plant can be carried out on request within the scope of a maintenance contract.

This is a proper service for the customer.

AROUND THE PLANT

WE ARE HERE FOR YOU!



MAINTENANCE, ANALYSES AND OPERATIONAL SUPPORT

Wastewater treatment plants always require maintenance. Here, we can also offer you a complete modular service package for maintenance / operational support / service / spare parts on request.

We can offer you appropriate services for operational support with remote monitoring of the plant. However, we are also happy to offer support in the laboratory area.



SERVICE AND SPARE PARTS

Of course, we keep all necessary wear parts or spare parts ready for you in our central spare parts warehouses.

In addition, we offer you an extensive range of spare parts and accessories in our online store www.batchpur.shop.



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SCAN ME



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