



INDIVIDUAL,
INFORMATIVE AND
EFFICIENT

TEST FACILITIES

- Biogas plants
- Fixed bed reactors
- Activated sludge plants
- Individual solutions

OUR SERVICES



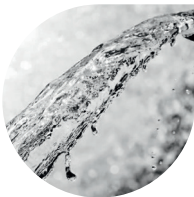
Waste water treatment

The unique FlexBio wastewater treatment plants work energy-efficiently and cost-effectively in all areas of application. Whether you want to clean weakly polluted wastewater on a farm or heavily polluted wastewater from industry, the FlexBio portfolio always offers a suitable solution.



Biogas technology

The FlexBio biogas process developed by us is suitable both for use in agriculture and in waste management. Our fixed bed technology convinces with very high flexibility - e.g. suitable for on-demand biogas production without large gas storage - as well as with high process stability and efficiency.



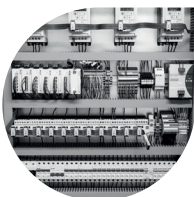
Water treatment

FlexBio Technologie GmbH offers compact and modular water treatment plants as container solutions. The container plants for water treatment are delivered turnkey and ready for use.



Pilot plants

As a plant manufacturer, we offer a wide range of test facilities. In addition to our standardized test facilities, we also provide individual customer solutions. Having your own prototype gives you great flexibility in the development and optimization of your processes.



Control and measuring technology

As a manufacturer of waste water treatment plants, water treatment plants, biogas plants and experimental plants of all sizes, we are very familiar with the production of control systems including development, planning, design and programming.



Service

FlexBio Technologie GmbH is your contact for the first consultation on the planning, construction and commissioning of the unique FlexBio technology systems.

FLEXBIO TEST FACILITIES

As a plant manufacturer, we offer a wide range of test facilities. In addition to our standardized test facilities, we also offer individual customer solutions. On the one hand, having your own prototype gives you great flexibility in the development and optimization of your processes. On the other hand, you save both investment and later costs, and you can convince yourself of our service even before placing your final order.

With completely prefabricated test facilities, an optimal solution can be determined for your research question. You will receive from us a test plant that you can use and test individually. Our pilot plants are specially planned and equipped with individual control and measurement technology. The team of FlexBio Technologie GmbH has extensive experience in the biological treatment of different substrates / residues and wastewater. We gladly bring the experience into the planning of your test plant.

You can use the test facilities for preliminary investigations and as a permanent solution for small amounts of substrate/ wastewater.

The FlexBio team has many years of experience in assessing technical issues. In addition, our extensive detailed knowledge is available to you during planning. In addition to the actual construction of the test facility, we are also at your side with regard to process engineering issues. In the practical implementation and planning of large-scale plants, however, there are occasionally questions that can only be adequately answered by the operation of test facilities. A corresponding piloting of large-scale systems is particularly necessary if there is a risk of bad investments. You benefit from our collaboration with research institutes, laboratories, colleges, universities and businesses.



OUR SERVICES

- Individual design according to customer request
- Planning
- 3D modeling
- Industry 4.0 standard
- Standardized documentation
- Support with commissioning

For each pilot plant, a 3D model is created in order to be able to depict the plant in detail to the customer before production. Thus, production errors can be avoided in advance.



ADVANTAGES

- Individual compilation of the components
- Plug & Play principle
- Compact design
- One-off productions
- Competent consulting
- Years of experience

In addition to individual pieces for existing laboratories, we also create combined solutions.



BIOGAS PLANTS

In a biogas plant, microorganisms biodegrade the organic starting materials (substrate) in the absence of light and oxygen. The product of this anaerobic digestion is biogas, which for the most part consists of methane. The pilot plant enables the production of biogas from different substrates. In the first stirred tank reactor hydrolysis and acidification of the substrate takes place. Anaerobic microorganisms transform long-chain organic substances into short-chain organic substances. In the second stirred tank reactor, biogas is produced in the last step of anaerobic digestion.



FIXED BED REACTORS

The biological degradation of the organic load of the wastewater takes place under exclusion of oxygen. Characteristic of the anaerobic conversion is the low growth of biomass, since the majority of the wastewater components is converted into biogas. This consists mainly of high-energy methane and carbon dioxide. Fermenter with a large specific settlement surface - such as the fixed bed fermenter - allow enrichment or retention of the acetate and methane-forming microorganisms.



ACTIVATED SLUDGE PLANTS

The test stand is a fully biological wastewater treatment plant on a laboratory scale. The plant consists of three stages: an upstream denitrification stage for the elimination of nitrogen loads, an activation stage for the substantial removal of organic constituents and nitrification and a downstream secondary settling tank. The activated sludge process is a process of biological wastewater treatment, in which organic load in dissolved form in the wastewater, is degraded by aerobic microorganisms.



INDIVIDUAL SOLUTIONS

In addition to our standardized test facilities, we also offer a wide range of individual solutions. On the one hand, a combination of the standardized test facilities is possible and, on the other hand, individual solutions according to customer requirements are possible. In addition to the above-mentioned pilot plants we offer pilot plants for drinking and process water treatment.



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