



INNOVATIVE,
POWERFUL AND
USER-FRIENDLY

CONTROL AND MEASURING TECHNOLOGY

- Control and switch cabinet assembly
- Individual measurement technology
- Automation of complex control tasks

OUR SERVICES



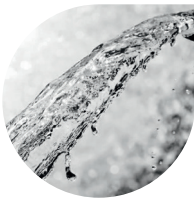
Waste water treatment

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.



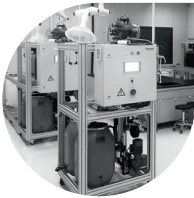
Biogas technology

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 CONTROL AND MEASURING TECHNOLOGY

As a manufacturer of wastewater treatment plants, biogas plants and experimental plants of all sizes, we are very familiar with the production of control systems including development, planning, construction and programming. We develop control systems according to the individual requirements of our customers, since for each of our plants different automation requirements have to be met. Our measuring technology can be integrated individually into FlexBio systems and into other already existing systems. We particularly pay attention to the correct calibration of the sensors and the associated adaptation to the respective media.

The exemplary visualization (see figure) shows all important system parameters at a glance. The easy to handle menu navigation is most convenient to make further settings. The human

machine interface HMI is operated via touch screen. The individual options of the HMI enable a system-specific design which is tailored exactly to the customer's requirements. Different parameters need to be measured for each application. Depending on the specific tasks, these are integrated in the control system so that live data can be viewed at any time to monitor the system.

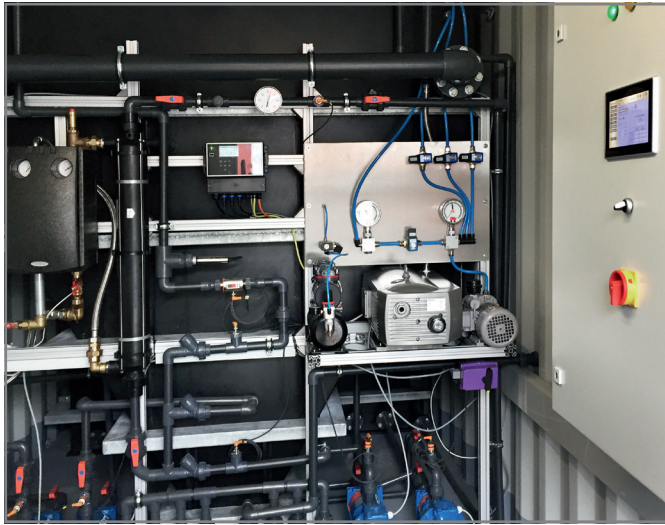
We offer space-saving solutions even in confined spaces. The measuring technology as well as the associated machine technology are installed compactly and easily accessible. Maintenance and service can be provided quickly and easily. The calibration of the sensors is very easy via the control unit and requires no specialist staff.



3D model of a control cabinet. Individual assembly according to requirements is possible without any problems. Touch panel for operation mounted outside.

OUR SERVICES

- Industry 4.0 standard
- Circuit diagram
- 3D modelling
- Cabinet construction
- Visualization
- DIN standard Documentation



- ### ADVANTAGES
- Derivation of program sequences from process flow diagrams
 - Integration into Industry 4.0 standard
 - Demand-oriented measurement technology
 - Individual programming and visualization
 - All services from a one-stop-shop

Graphics of our control units can be designed based on customers' needs. The units are easy to operate via a touch panel. The most important data are available at a glance. If required, all recorded values can be downloaded as a log file.

FLEXBIO TECHNOLOGIE

Not-Aus Feigabe ●

Betriebsstunden 1586
Wartung in 2794
Wartung ●

Wertetabelle

Alarm	CSB	36967	mg/l
Login	LF	2663	µS/cm
Logout	Durchfluss	5.4	l/h
	Menge Abw.	3.97	m³
	Menge Biogas	62527	l(N)

Einstellungen

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Ampelleuchte ● ● ●

Process Flow Diagram:

- Vorlage** (Input) → **Anaerobfilter** (Temp. 37.8 °C, Redox -500 mV, pH 5.9)
- Anaerobfilter** → **Belebungsbecken** (Temp. 18.8 °C, O2 6.61 mg/l, pH 7.54)
- Belebungsbecken** → **Output** / **Schlamm**
- Heizung** (Heating) connected to the Anaerobfilter
- Kompressor** (V1.1) connected to the Belebungsbecken
- Control Valves:** MV1.0, MV2.0, MV3.0
- Pressure Sensors:** P1.0, P2.0, P3.0, P4.0
- Differential Pressure Sensors:** DP1, DP2

Summary Data:

V-Biogas	60	l/h	CSB	358	mg/l
CH4	65.6	%	NO3	11.3	mg/l

CONTROL DESIGN AND CONTROL CABINET CONSTRUCTION

Through a flexible in-house production, we can meet the most diverse requirements of our customers. In addition to the timely and quality-compliant delivery of control systems, we meet all current standards in the field of automation technology. Per-fabrication of the control cabinets at our production site shortens the assembly time at the customer site. Short communication paths between our programmers and the assembly team lead to an individual and perfectly coordinated system control. Our control and automation systems are built according to DIN EN 81346 and programmed according to the IEC 61131-3 standard. Standard-compliant documentation facilitates work and speeds up the maintenance and repair of machines, plants and buildings considerably.



INDIVIDUAL MEASUREMENT TECHNOLOGY

Since a controller is only as good as its sensor technology and we always want to offer the highest standard, we also work together with well-known manufacturers in the area of measuring technology. Our measuring technology can be installed in our systems as well as retrofitted in third-party systems. Measurement results can be displayed digitally in real time. This enables us to optimally control the process in our plants. Our software solutions enable data transmission via internet. The measured data are displayed in tables and graphs. Visualization of the alarm status and monitoring of maintenance operations and remote parameterization increase the operational safety. The access rights can be individually defined and documented. The effort for the operator is thereby reduced to a minimum.



AUTOMATION OF COMPLEX CONTROL TASKS

Our custom-tailored control systems are based on industrial automation technology and can be coupled via Ethernet with a data acquisition. Existing plants can also be equipped with a new controller. For hardware components we rely on products from well-known manufacturers, which enable a fast and effective system integration and convince with their longevity. Our plants can be displayed and controlled on your end devices such as a PC, tablet or smartphone via visualization. In addition, it is possible to integrate the controller into other systems via an OPC server and Ethernet interface. This allows to combine different processes and systems from different manufacturers. Furthermore, other network computers or industrial computers can be connected via serial interfaces or Ethernet interfaces in order to control the system from there.



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