



## PILOT CONTAINER BIOGAS

The biogas pilot container is a customized, transportable solution for biogas test plants on pilot scale. Pilot containers are individually engineered and equipped. Continuous and batch-based operation as well as wet/dry fermentation and heap leaching (garage fermentation) are possible. Both, the technology and the equipment components of the pilot container (measuring devices, feed and discharge equipment, control instruments) are realized according to customer requirements.



### Components overview

- ① Mixer unit
- ② Feeding system (spiral conveyor)
- ③ Switch cabinet (with control unit)
- ④ CSTR reactor (with heating)
- ⑤ Feeding tank

### Reactor types

There are different reactor types available:

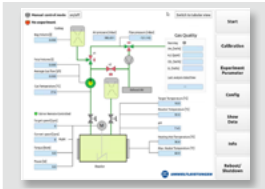
- ✓ Continues stirrer tank reactor – CSTR reactor
- ✓ Trickle bed reactors
- ✓ UASB / EGSB reactors
- ✓ Dry fermentation reactors
- ✓ Batch leaching reactors
- ✓ Photobioreactors
- ✓ Biological methanization reactors

### Features and options

- ✓ 20 or 40 ft. container available
- ✓ Container with isolation
- ✓ ATEX-compliant equipment
- ✓ Dosage pumps for pH-control
- ✓ Excentric screw pumps
- ✓ SENSOcontrol with touch panel
- ✓ Measurement equipment:  
Gas quantity, gas quality, pH, ORP redox,  
temperature, conductivity and more



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### SENSOcontrol

The universal automation system SENSOcontrol is used for data acquisition applications and control of units (pumps, mixer) of the test plant. A touch panel for intuitive operation is integrated for user-friendly parameter set-up and real time visualization of measured data.



### Gas quality measurement

With the gas quality measurement system the following parameters can be measured:

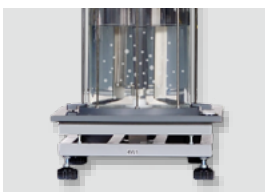
- ✓ CH<sub>4</sub> 0...100 vol % IR sensor
- ✓ CO<sub>2</sub> 0...100 vol % IR sensor
- ✓ O<sub>2</sub> 0...25 vol % Electro chemical sensor
- ✓ H<sub>2</sub>S 0...5,000 ppm Electro chemical sensor
- ✓ H<sub>2</sub> 0...20,000 ppm Electro chemical sensor
- ✓ H<sub>2</sub> 0...100 vol% Thermal conductivity sensor

Additional parameters on request.



### Excentric screw pumps | Tube pump SP5

The individual BTP modules can also be equipped with pump modules controlled by SENSOcontrol. Tube pumps are available for pH-control and liquid feeding. Eccentric screw pumps can be used for difficult feeding requirements.



### Sparkling systems

The additional sparkling system with a mass flow controller allows the defined sparkling of gases. Gas mixing systems are available too.

Information on Pilot Container



The equipment features will be defined with the quotation.

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