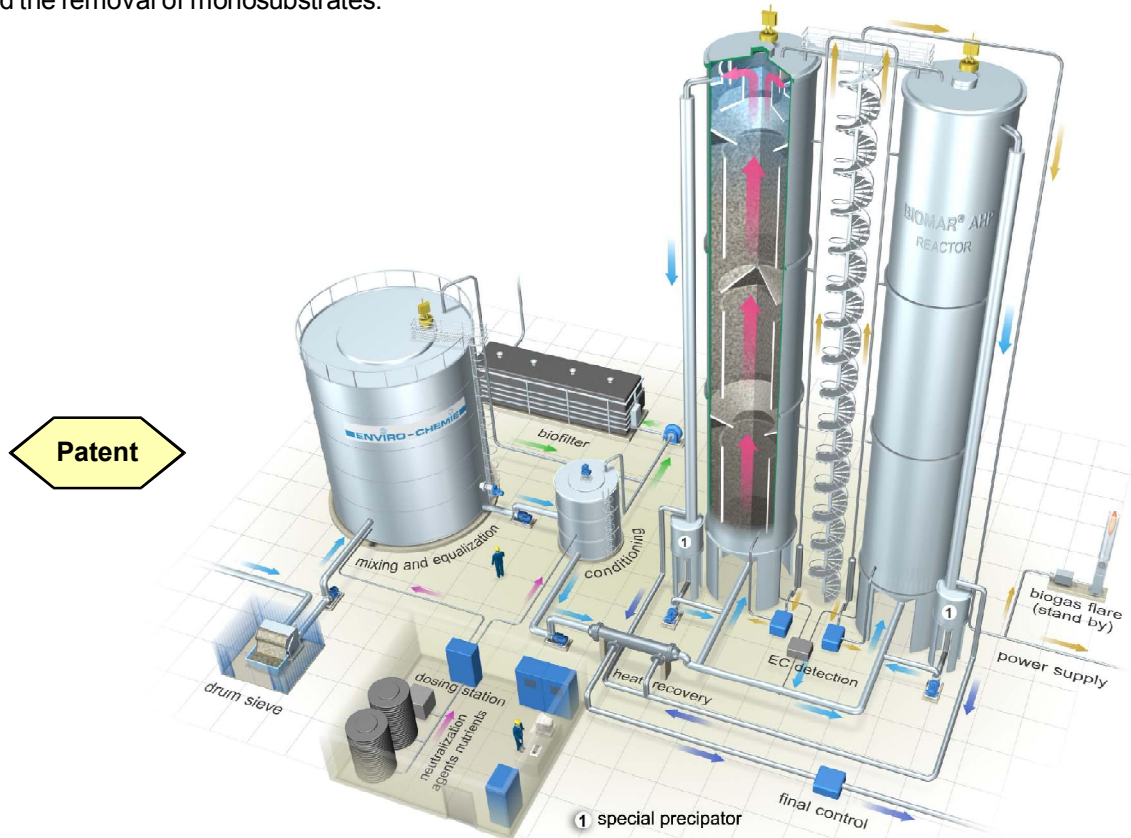


# BIOMAR® AHP

## Anaerobic High Performance Process

The BIOMAR AHP process was specially developed for heavy loads, warm waste water, a small footprint and the removal of monosubstrates.



Example of BIOMAR® AHP

### Applications

- Potato processing industry
- Beverage industry
- Biodiesel production
- Bioethanol production
- Paper industry
- Breweries
- Whey and yeast processing industries

### Charakteristics

- Extremely compact AHP reactor
- Ideal for monosubstrates
- High volume specific rate
- Suitable for warm waste water
- Chemical oxygen demand load: 10-35 kg/m<sup>3</sup>d
- Chemical oxygen demand: 5,000-100,000 mg/l

### Technical specifications

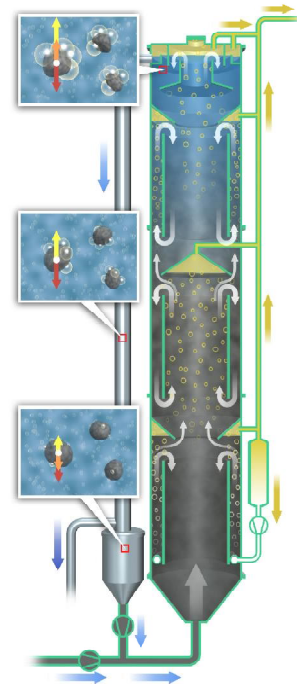
- Patented multistep high performance airlift reactor
- Selective reaction zones
- Patented compression separation
- Removal of inhibiting gases such as H<sub>2</sub>S
- Product quality according to DIN EN ISO 9001

## BIOMAR® – proven technology

The BIOMAR® technology developed by Enviro-Chemie biologically transforms organic waste water contents into valuable resources, for example biogas. The BIOMAR® plants are a result of the 30 years of experience with Enviro-Chemie experts have with biological industrial waste water treatment.

## BIOMAR® AHP high performance reactor

The BIOMAR® AHP reactor is a multistep anaerobic high performance airlift reactor with a compact transportable construction which can be integrated even into limited space. The separation into three reactor units with airlift flow turns organic waste into energy-rich biogas. The cascade principle produces individually adapted micropellets with an especially large specific surface area and high activity. High volume specific rates are a distinguishing characteristic of this reactor. The gas adsorber removes inhibiting gases in the lowest reactor unit, making it possible to purify otherwise untreatable waste water and increasing the performance when treating waste water containing sulfates. The gravity needed to separate the biomass is increased drastically by elimination of gas buildup and the compression of the rest of the gas in a patented compression separator.



Concept of the BIOMAR® AHP high performance reactor

## Mechanical engineering

Enviro-Chemie's numerous new developments and the use of our own high-quality mechanical engineering provide a highly reliable, ideally synchronized process.

Mechanical engineering designed by ENVIRO-CHEMIE	Mechanical engineering designed by ENVIRO-CHEMIE	Suppliers Quality MADE IN GERMANY
BIOMAR® reactor	Conditioning	I & C equipment
Mixing and equalization	High quality neutralization agents/nutrients	Fittings
Drum sieve	controlled distribution system	Programmable logic control, PLC Siemens (standard)
Biofilter	Dissolved air flotation	Heat recovery
EC detection system	Dosing station	
Biogas flare	Final Control	

Local Construction and Concrete Design

\* pending patent

Technical details are subject to change