BIOTHANE

BIOBED® EBS

The next generation of high rate anaerobic technologies

by VEOLIA
Water Technologies

BIOBED® EBS

MARKETS

- Food & Beverage
- Pulp & Paper
- Chemical & Pharmaceutical
- Revamping

"As part of Veolia Water Technologies, we provide the most appropriate industrial effluent and biogas treatment solutions, tailored and optimized to the needs of our clients."

A unique anaerobic system with high external biomass separation efficiency.

Biothane has achieved a breakthrough in the development of the Biobed External Biomass Separator (EBS) technology. The innovative process separates anaerobic effluent from the anaerobic biomass **outside of the reactor,** allowing for greater efficiency and higher water quality.

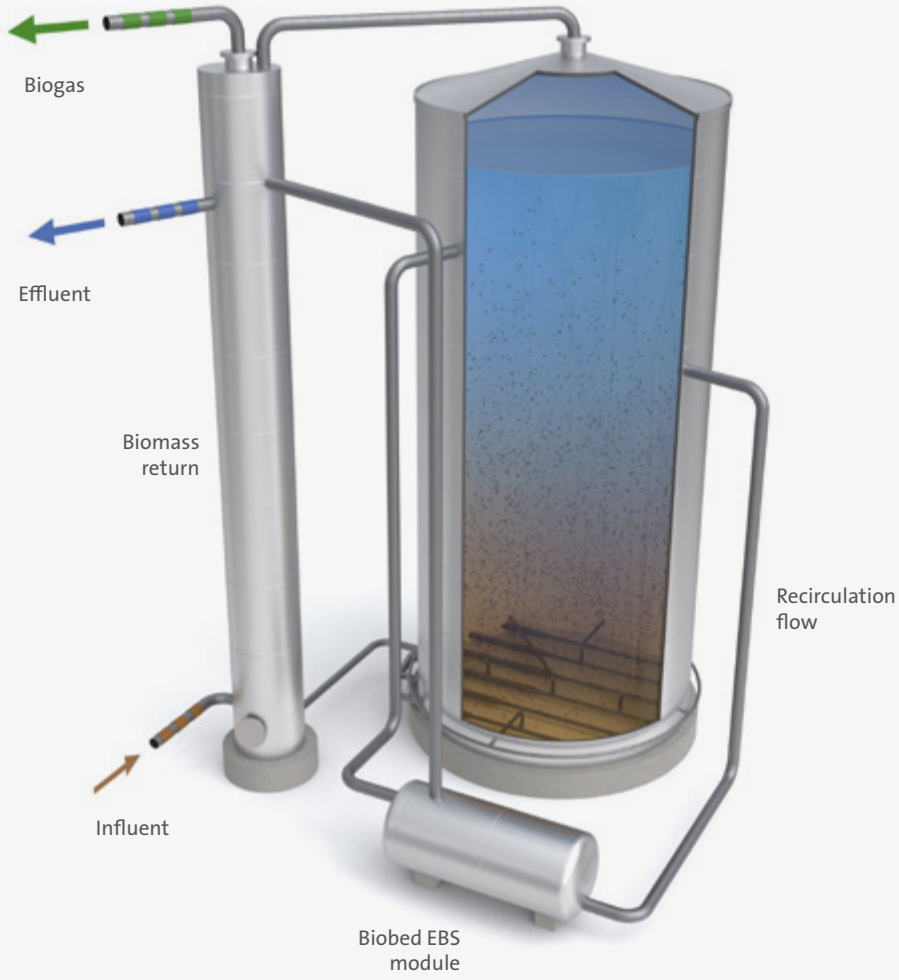
Biobed EBS is designed for maintenance during operations and performs at maximum availability, making it ideal for industries that require robust effluent treatment for regulatory compliance.

It is the perfect solution for wastewaters with high scaling and precipitation potential, as there is no need to empty or open the reactor. The Biobed EBS reactor has no internals and the EBS can be easily isolated for the Cleaning in Place (CIP) procedure. This reduces downtime and allows for maintenance without affecting operational availability.

The Biobed EBS is a compact solution with a small footprint resulting in **low investment costs.** The EBS modules are pre-fabricated and have a plug and play installation. Compared to aerobic treatment, anaerobic treatment reduces sludge by more than a factor 10. Biogas is produced and can be used as an energy source. This results in **very low operational costs.**

Compact solution and highest availability in the market

- EBS module fully accessible for maintenance
- Module isolable from reactor for safe CIP
- Minimized risk of clogging or mineralization of internal components
- High upflow velocities in reactor



SERVICES

- Digital services (Hubgrade)
- Remote support
- Process quality control
- Nutrient supply
- Biomass management

Local services are provided, and each of our processes can be linked to our digital services platform, **Hubgrade.** Our experts monitor the performance of process plants, while local support provides technical assistance.

Hubgrade
Powered by VEOLIA

Improving the anaerobic process for maximum biogas production

Flexibility to cope with future needs: our EBS units are modular allowing more modules to be easily added to increase plant capacity.

Compatibility with any (high-rate) reactor: save on CAPEX by easily upgrading your existing anaerobic reactors to achieve increased capacity and performance.

No complex internal parts: using our EBS units eliminates the risk of internal reactor blockage (risers or downcomers) or calcification of internals.

Easy upgrade of any anaerobic digestor into a Biobed EBS by adding EBS modules

Your partner for more than 40 years...

Biothane designed the first UASB applied in industry. Since then, we are continuously striving to optimise, innovate and widen the field of anaerobic treatment applications. Our state-of-the-art research facilities include analytical and application laboratories, as well as bench scale, pilot scale, and demonstration scale plants, which are managed by our dedicated R&D team.

Biothane has competence to develop treatment solutions from lab to full-scale concepts. Our biogas solutions include biogas treatment to clean biogas and the ability to upgrade to biomethane quality.

Using Veolia Water Technologies' portfolio, we can conceptualize the entire treatment from pre- to post-treatment solutions. Our end-users benefit from having the most appropriate solution that is tailored to their specific needs.

Global network, local expertise

Resourcing the world

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