

BIOETHANE



SPARTHANE™ (AnSBR)

The ultimate anaerobic technology for treatment of wastewaters high in fat and solids

Sparthane (AnSBR) solution

Sparthane is the latest anaerobic solution, designed to treat industrial effluents with a wide range of concentrations, at maximum removal efficiency. The system is designed for having a high tolerance to concentrated Fat, Oil and Grease and or high levels of Suspended solids. This benefits in having no requirement for a primary treatment.

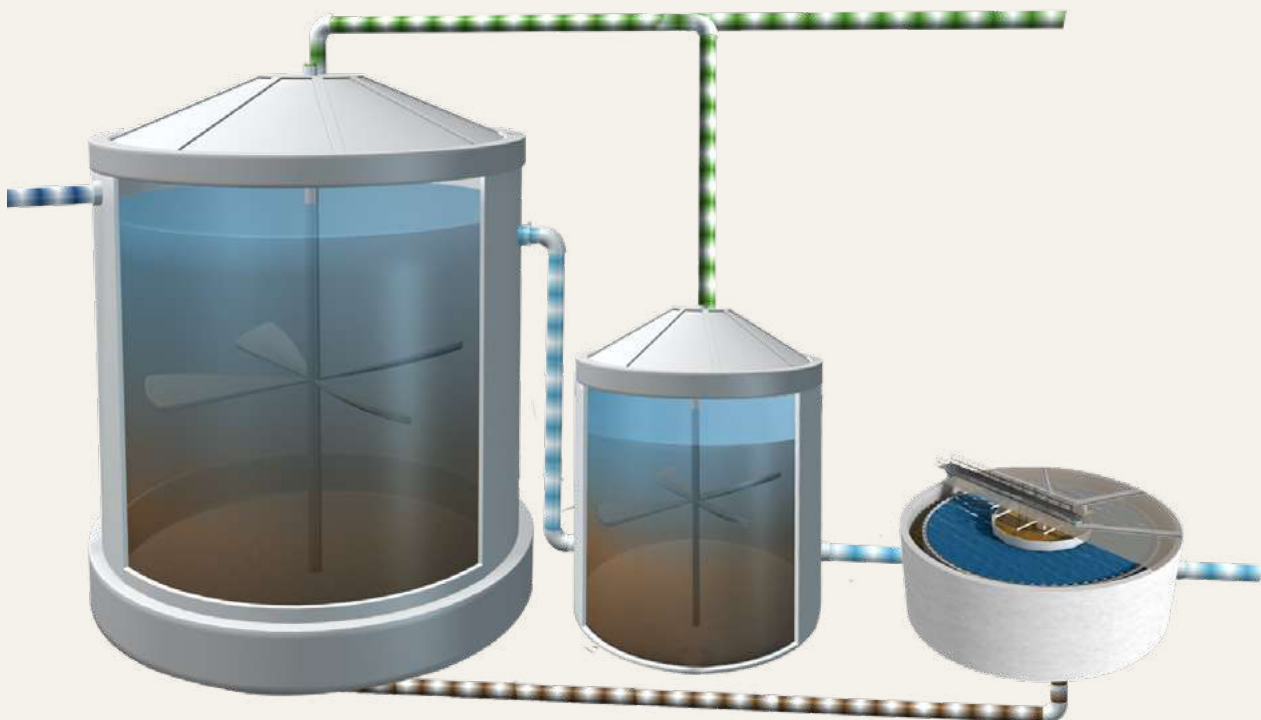
Without the need of any pretreatment (other than screening), the acidified content of the buffer tank is fed to the Sparthane reactor in batches.

Once in the reactor, the substrate is efficiently converted into valuable biogas by the suspended anaerobic biomass.

Thanks to Sparthane unique sequence, the substrate is completely degraded, enabling maximum biogas production.

Finally, the advanced process of biomass degassing takes place in the Batch Degassing Tank (BDT). The final effluent is clarified in the Semi-Continuous Settler (SCS). Whilst the separated effluent is discharged, concentrated biomass is simultaneously returned into the anaerobic reactor to start the Sparthane sequence again.

“Designed for high tolerance of FOG, no need for DAF unit, maximising biogas production.”



Sparthane reactor

BDT

SCS

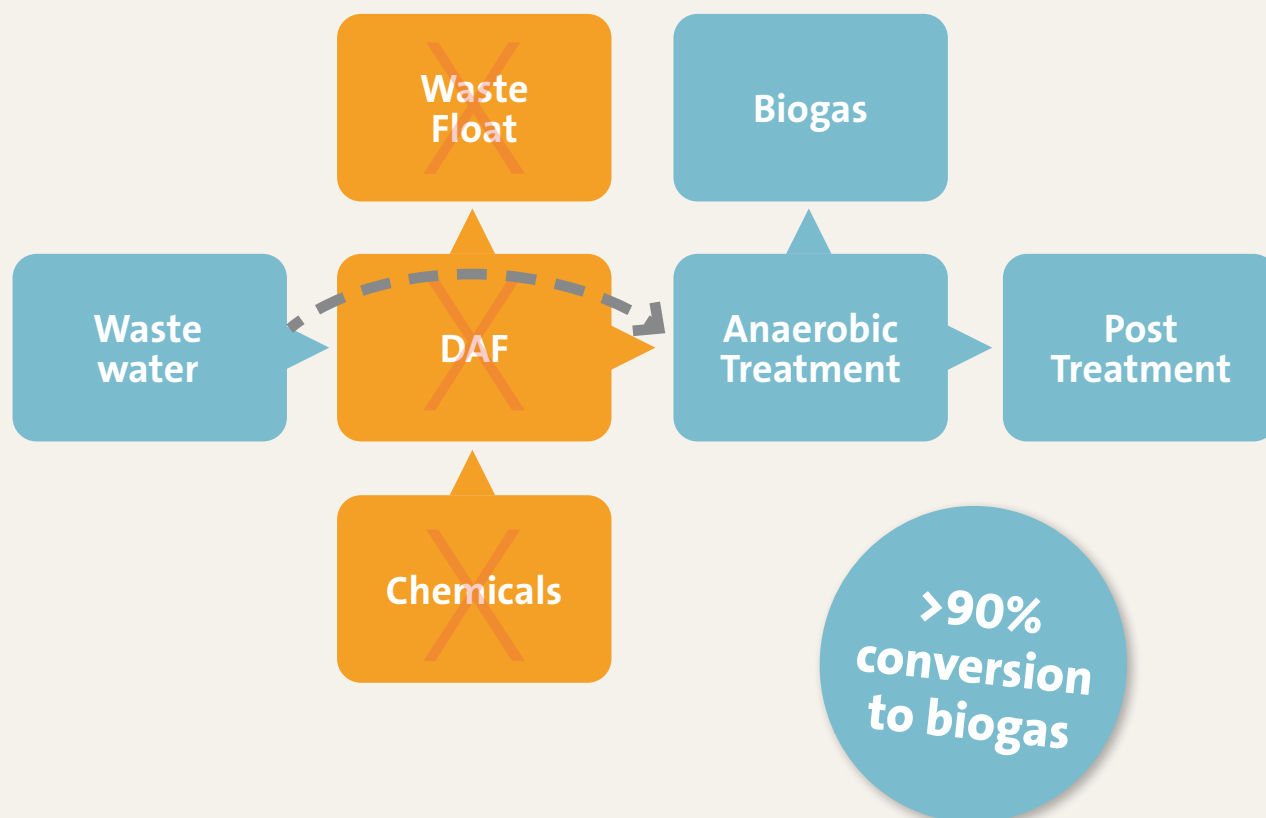
Drivers Sparthane concept

Sparthane is a **robust and low cost solution** for treatment of effluent and by-product streams from a.o. dairies, wineries, distilleries, and beverage industry.

Sparthane **process consists of a unique** sequence regime that starts from the collection of the waste streams in the mixed buffer tank in which acidification process takes place.



No pretreatment > no chemicals needed > no waste float production



Sparthane secures lowest operational costs for anaerobic treatment. There is no need for pre-treatment chemicals (coagulant; flocculant) and instead of wasting DAF float and or other primary waste stream; the load is converted into Biogas. For typical food industry effluents this results in 25-50% more biogas than anaerobic treatment installations including primary treatment.

SIMPLE AND SMART PROCESS CONTROL

The process performance is secured by means of self regulating operations regime and control. The process optimizes set points to the characteristics of the wastewater. Processes are serviced by our local service teams.

COST EFFECTIVE SOLUTION

The Sparthane concept is modularized and standardized. Our clients benefit from pre-engineered concepts which meets the high Veolia standards in terms of safety and quality.

FEED CHARACTERISTICS RANGES	
TCOD (g/L)	5-50
TSS (g/L)	0-20
FOG (g/L)	0-4

Markets

DAIRY



WINERY



MEAT PROCESSING



OIL & CHEMICAL AND BIOFUELS



Waste streams from industries like, dairy, food processing, winery and biofuels (among others), can have wide range of COD and high concentrations of TSS (> 500 mg/L) and FOG (> 150 mg/L). On top of this water optimization in industry will continue to push these concentrations higher.

Sparthane Benefits

- › High tolerance to fats and/or suspended solids in feed
- › No pre treatment
- › No need for pre-treatment chemicals
- › No primary waste generation
- › Maximum Biogas production
- › Self regulated & SMART control
- › Robust and stable
- › High treatment performance
- › High tolerance to feed fluctuations
- › High operational flexibility
- › Modularized & Standardized Design

Partner for more than 40 years...

Biothane is the inventor of the first UASB applied in industry. We have a company track of more than 40 years. Being part of Veolia we secure long term partnership with our end users through after sales service contracts.

Services are provided at local level. Each of our processes are able to be connected to Veolia's digital services platform... AQUAVISTA™. Experts following process plants performances and local support providing technical services

At Biothane we continuously strive to optimize - innovate our technologies and widen the field of anaerobic treatment applications.

Our dedicated R&D team run our state of the art research facilities; that comprise analytical - and application laboratories including bench scale, pilot scale and demonstration scale plants.



**Stay
connected
to our team
of experts**



Pilot testing in Poland

“ *As part of the Veolia family we provide the most appropriate industrial effluent and Biogas treatment solutions: tailored and optimized to the needs of our clients.* ”

Biothane Worldwide References

