



## Tanks and biogas reactors made from stainless steel

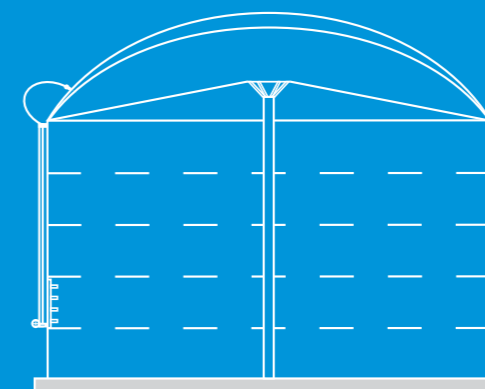
TANKS



Organic energy worldwide

**WELTEC BIOPOWER GmbH**  
Zum Langenberg 2 • 49377 Vechta

Telefon: 04441 99978-0  
Telefax: 04441 99978-8  
info@weltec-biopower.de  
www.weltec-biopower.de





## Tanks made from stainless steel

The stainless flat steel tanks are built in a segmental method with profile stiffened stainless jacket sheets. This allows a tailored and individual design of the tanks and a short construction time. In the liquid zone, stainless steel 1.4301 (V2A) is used and in the gas zone is set on stainless steel 1.4571 (V4A). The choice of stainless steel is always worthwhile: The corrosion-resistant material has high quality, a long lifetime and can be used in all climate zones. In addition, stainless steel tanks are virtually maintenance free, which keeps the costs low.

### Stirring technology

A sophisticated stirring technology is essential for a reliable and efficient mixing of the fermentation substrates and serves as basis for a constant gas yield. Only the intelligent use of agitators can prevent sedimentation and guarantee a low energy requirement.



### Submersible agitator

- Complementary to long-arm agitator
- Rapid and specific substrate interference
- Destroy any floating and sinking layers
- Immersion depth and degree of turning individually adjustable
- Smooth design avoids sticking of fibrous materials

### Dimensions

Diameter	5.43 m - 34.55 m
Height	3.78 m - 7.55 m
Volume	88 m <sup>3</sup> - 7,078 m <sup>3</sup>

other sizes on request

## Digester equipment

- Thermal insulation with polystyrene
- Cladding with aluminium profiled sheeting for weather protection
- Double membrane air-supported roof with gas storage
- Variable charging level indicator
- Heating of stainless steel pipes
- Operating platform at the fermenter
- Agitator (longarms and/or submersible)
- Sight glasses with cleaning system
- Desulfurization unit
- Maintenance-free under-and over-pressure protection
- Temperature sensor with immersion sleeve
- Manhole made of stainless steel
- Sample-taking cock
- Blind fittings for the installation of a continuous pH measurement and foam sensors
- Gas pipe made of stainless steel (V4A)

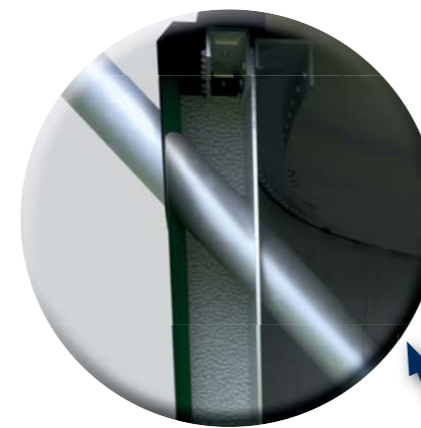


Fig. Wall duct of longarm agitator

### Longarm agitator

- Control for infinitely variable speed regulation with frequency converter
- Motor and bearing support are located outside of the fermenter
- Inclined installed shaft with gas-tight wall duct
- Low-wear pendular slide bearing in the bottom bearing block with connection for water flushing
- Agitator blades made of high strength cast polyamide (diameter 2.40 m)
- Low consumption

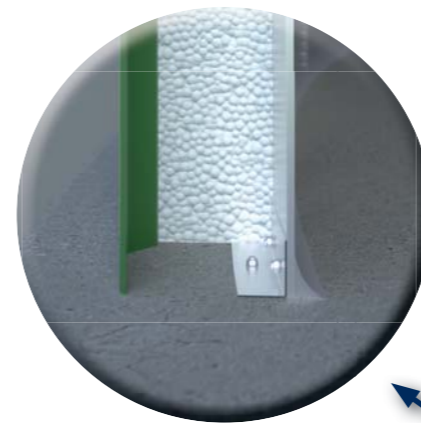


Fig. Ground connection

### Ground connection

- Angle iron made of rustproof stainless steel
- Fixing with stainless steel dowels and screws
- Resistant special sealing compound seals stainless steel sheets from the concrete plate and with each other

### Foil roof

- Cover made of high-value fabric foil (PES yarn)
- PVC coated
- Weather protection membrane
- extremely tear-resistant
- Parallel cutting
- flame retardant (DIN 4102 B1)
- optional manhole

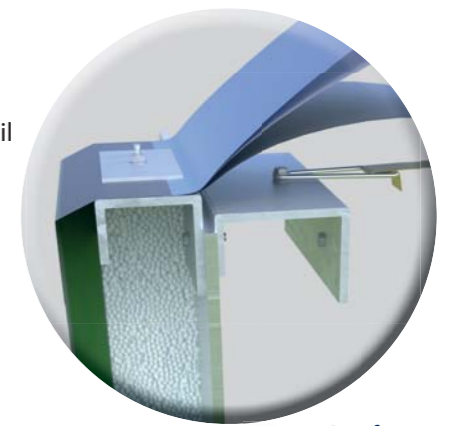


Fig. Roof connection

