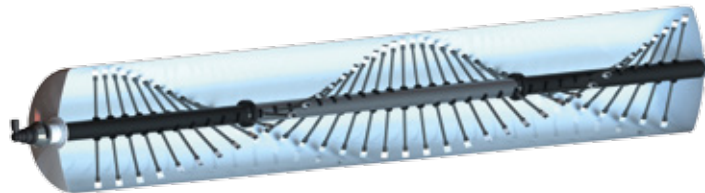


# Plug-flow agitator

## FOR EXTREME SOLIDS CONTENTS

In the past 20 years, biogas technology has developed further in many respects. Also with regard to the fermentation of new substrates. With an increasing solids content, more and more plants by definition reach the degree of dry fermentation. Our plug-flow agitators are able to agitate dry matter contents of more than 25% without any problems. In this sector, demands with regard to technology are highly specific, and they are perfectly met by our plug-flow agitators. These are the special features:



## Advantages

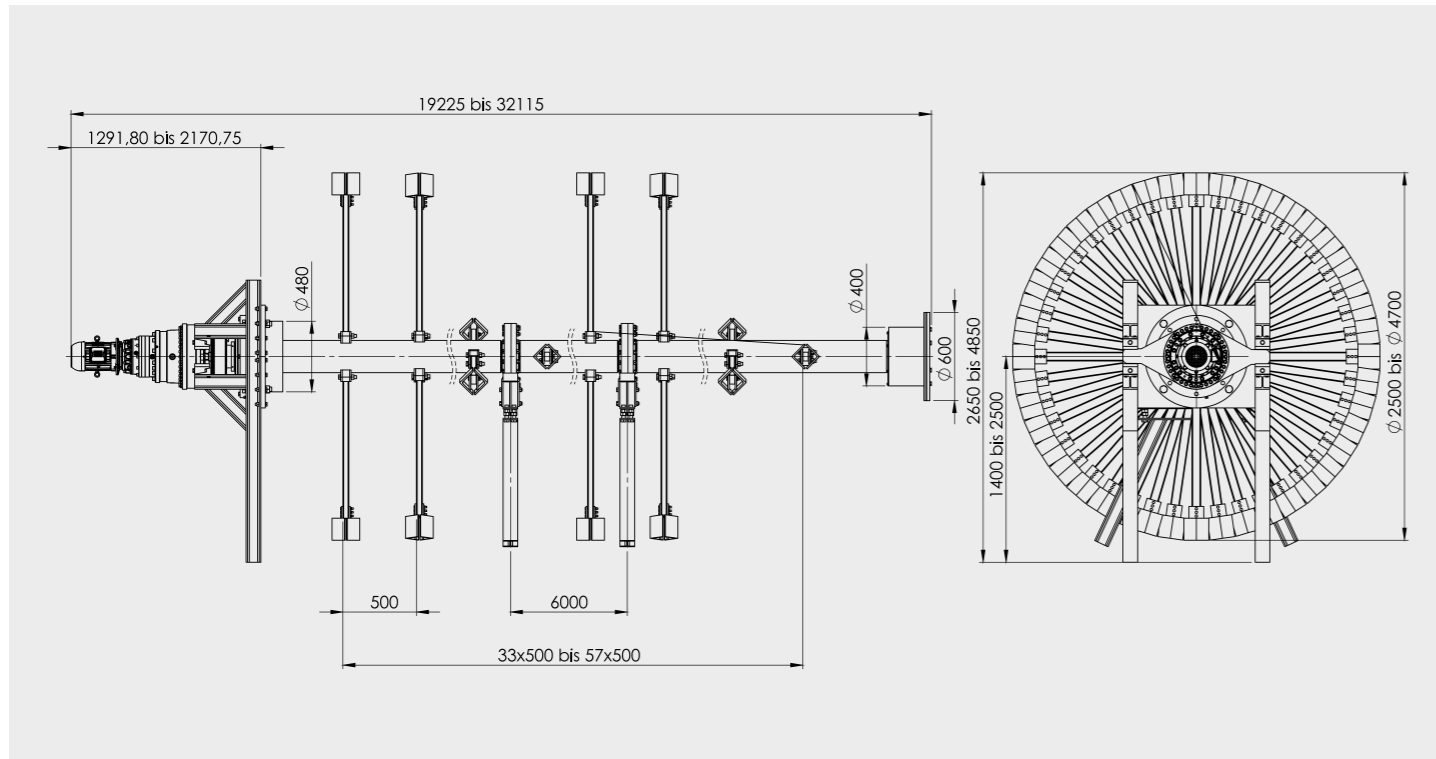
- Very slowly running agitator for plants with a very high content of dry substrate
- Accelerated maceration of the biomass provides for an increased gas yield
- Variable use, e.g. for hydrolysis or as fermenter
- Use for operation in mesophilic and thermophilic areas
- No pre-treatment of the input materials necessary
- Very high torque
- Low current consumption
- Variable filling levels, dwell times, and speeds can be implemented without any technical modifications

## Options:

- The patented floating shaft by STC engineering makes an additional bearing in the container dispensable
- GRP tank can be supplied along with the delivery

## Fields of application

- Avoidance of setting/floating layers
- Very highly viscous media
- Suitable for pre-fermenters for hydrolysis and for fermenters



**Motor power:** 2.2 kW to 15 kW  
**Torque:** 20588 Nm to 140375 Nm  
**Max. thrust at the paddle:** 219.2 N to 548 N  
**Displacement volume per hour:** 1512 m<sup>3</sup>/h to 7186 m<sup>3</sup>/h  
**Speed:** 1 1/min  
**Circumferential speed:** 7.85 m/min to 15.71 m/min  
**Agitation diameter:** 2,500 mm, 3,200 mm, 3,700 mm, 4,700 mm  
**Number of paddles:** 68, 92, 116  
**Total paddle surface:** 2.448 m<sup>2</sup> to 4.176 m<sup>2</sup>  
**Gearbox:** 4-stage planetary gearbox  
**Shaft length in the container:** Approx. 18,000 mm, Approx. 24,000 mm, Approx. 30,000 mm

**Container filling level:** Constant and fluctuating filling level possible  
**Substrate:** Up to +55°C and pH value between 6 and 8  
**Installation position:** Centrally in the horizontally placed container  
**Material:** Structural steel, structural steel+special coating or V4A possible  
**Inner bearing:** Highly wear-resistant and maintenance-free bearing plastics  
**Outer bearing:** Spherical roller bearings for absorbing the axial and radial forces  
**Seal:** Mechanical seal (modularly extensible)

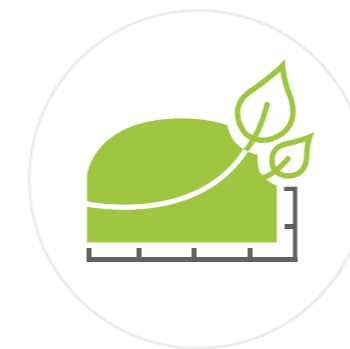
Comparison of our products

Features / description	Spiralo®	Schwanko	Hydromixer	Vertical agitator	Plug-flow agitator
Agitation efficiency	+++	++	++	++	+++
High-viscosity media	++	+++	++	+++	+++
Low-viscosity media	+++	+++	++	++	+
Fluctuating filling level	+++	+++	+	+++	++
Displacement volume	+++	++	++	+	○
Torque	++ (+)* <sup>2</sup>	++ (+)* <sup>2</sup>	++ (+)* <sup>2</sup>	++ (+)* <sup>3</sup>	+++
Ideal for dry matter content * <sup>1</sup>	Up to 11%	Up to 15%	Up to 13%	Up to 15%	Up to 25%
Availability	Stock article	Stock article	Stock article	Per order at short notice	Per order at short notice
<b>Suitable for:</b>	▼	▼	▼	▼	▼
Fermenters	+++	+++	+++	+++	+++
Secondary fermenters	+++	+++	++	+	○
Fermented substrate stores	+++	+++	○	○	○

\*<sup>1</sup> Depending on the substrate composition and cutting length  
 \*<sup>2</sup> On request 22 KW motor  
 \*<sup>3</sup> 1 – 45 KW

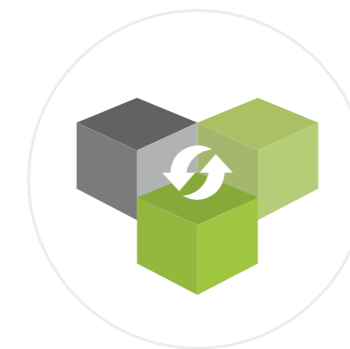


Various adaptations on the agitator can be implemented and customized special solutions are not a problem for us!  
**Feel free to contact us!**



**EFFICIENCY EXCELLENCE**

Consume less, save more – this is our incentive.



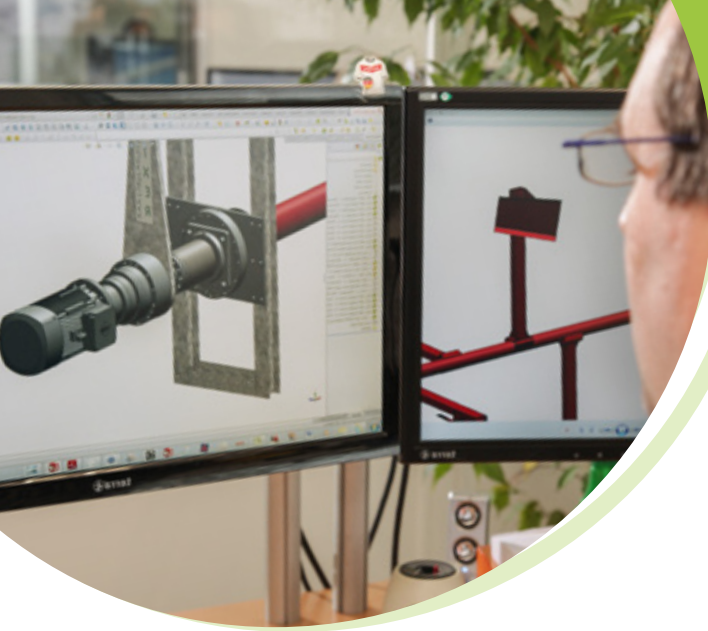
**BUILT-IN FUTURE**

Consistent production in component design allows for an ideal extensibility of our agitators.



**5 GOOD REASONS**

For more than 20 years, Steverding has been standing for agitators made in Germany with an unbeatable price/performance ratio.



## OUR RANGE OF PRODUCTS AT A GLANCE

In the table of the fold-out page, some technical key data are graphically compared. Our technicians will be pleased to think through together with you in a personal meeting which model is the most suitable for your plant. Due to the modular design, serial models can be individually configured.



### Spiralo®

Our highly innovative product



### Schwanko

The variable all-rounder



### Hydromixer

The champion



### Vertical agitators

The powerful compact class



### Plug-flow agitators

For extreme solids contents

**STEVERDING  
RÜHRWERKSTECHNIK**



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