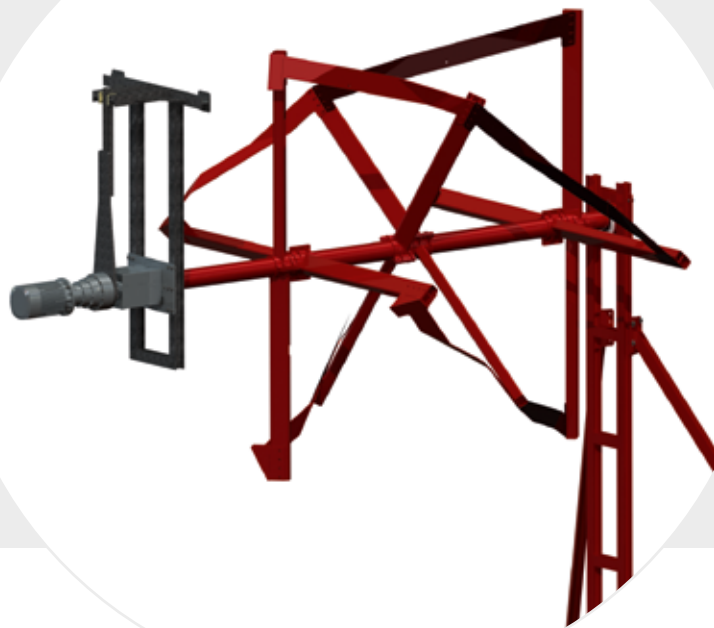


## OUR HIGHLY INNOVATIVE PRODUCT

As is generally known, the field of biogas production provides different possibilities of keeping substrates in motion. The energy yield and therefore the efficiency of a plant substantially depends on how this is done. Spiralo is a completely newly developed agitator into which the experience of several decades of collaborating with technical colleges and institutes has been incorporated. The numerous innovations are registered for patent approval, since our agitator is unique in its category. There are many good reasons for this:

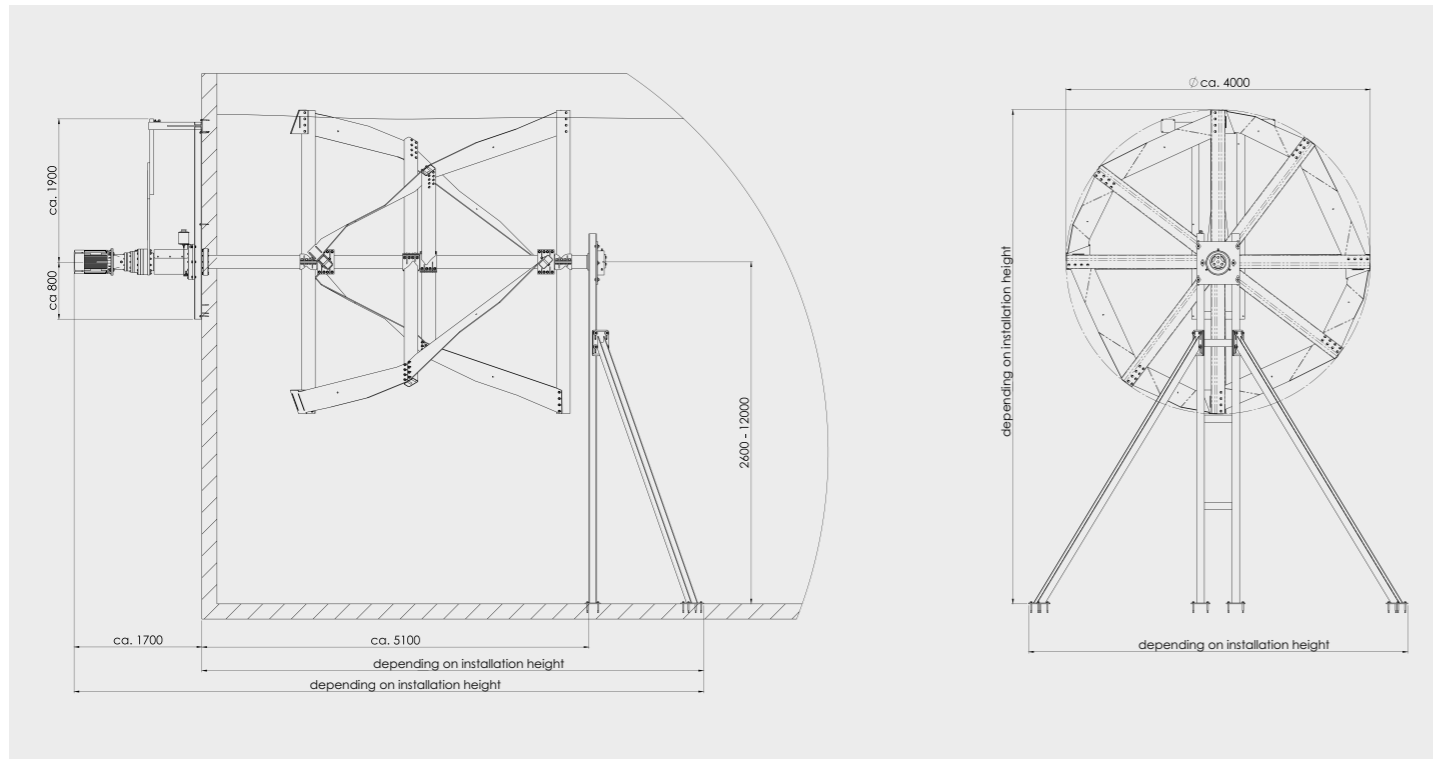


## Advantages

- Slow-moving horizontal paddle agitator for constant and fluctuating filling levels throughout the whole agitation diameter
- Axial suction effect from the container centre and radial ejection at the container wall for highly efficient mixing
- High effectiveness also with high-viscosity media
- Allows for agitation of the whole container in a short time
- Careful treatment of the bacteria population in order to attain an optimum gas yield
- Container bearing consisting of special, extremely wear-resistant and maintenance-free bearing plastics
- All relevant components can be replaced without having to drain the container or replacing the agitator shaft
- The functional principle is ideal for breaking floating layers
- Agitator principle supports the agitation of setting layers
- Makes degassing of the substrate easier
- Very low maintenance

## Fields of application

- Breaking of floating layers
- Agitation of setting layers
- High-viscosity & low-viscosity media (dry matter content up to 11 %)
- Suitable for fermenters, secondary digesters, and fermentation residue storages in steel or concrete design



**Motor power:** 15 kW, 22 kW  
**Torque:** 14,500 Nm, 21,100 Nm  
**Max. thrust at the paddle:** 7.25 kN, 10.55 kN  
**Displacement volume per hour:** 31,800 m<sup>3</sup>/h  
**Speed:** 10 1/min  
**Circumferential speed:** 132 m/min  
**Agitation diameter:** 4,000 mm (special diameter possible)  
**Total paddle surface:** 3.7 m<sup>2</sup>  
**Gearbox:** 3-stage planetary gearbox  
**Shaft length in the container:** Approx. 5,000 mm  
**Weight:** Approx. 2300 kg (depending on the version)

**Container filling level:** Constant and fluctuating filling level possible (ideally 100 mm below the highest paddle position)  
**Substrate:** Up to +55°C and pH value between 6 and 8  
**Installation height:** From 2,600 mm to 12,000 mm  
**Material:** Structural steel, structural steel+special coating or V4A possible  
**Inner bearing:** Highly wear-resistant and maintenance-free bearing plastics  
**Outer bearing:** Flange bearing for absorbing the axial and radial forces  
**Seal:** Mechanical seal (modularly extensible)

Comparison of our products

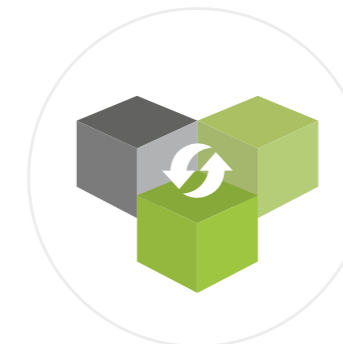
Features / description	Spiralo®	Schwanko	Hydromixer	Vertical agitator	Plug-flow agitator
Agitation efficiency	+++	++	++	++	+++
High-viscosity media	++	+++	++	+++	+++
Low-viscosity media	+++	+++	++	++	+
Fluctuating filling level	+++	+++	+	+++	++
Displacement volume	+++	++	++	+	○
Torque	++ (+)* <sup>2</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



**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.

Various adaptations on the agitator can be implemented and customized special solutions are not a problem for us!

**Feel free to contact us!**



## 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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