

motralec

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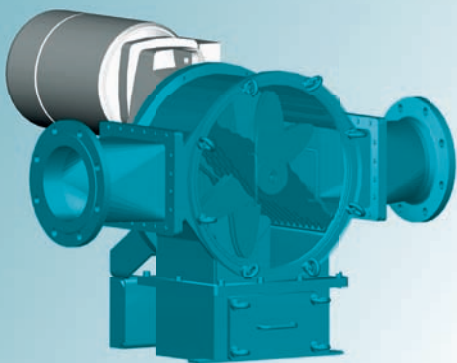
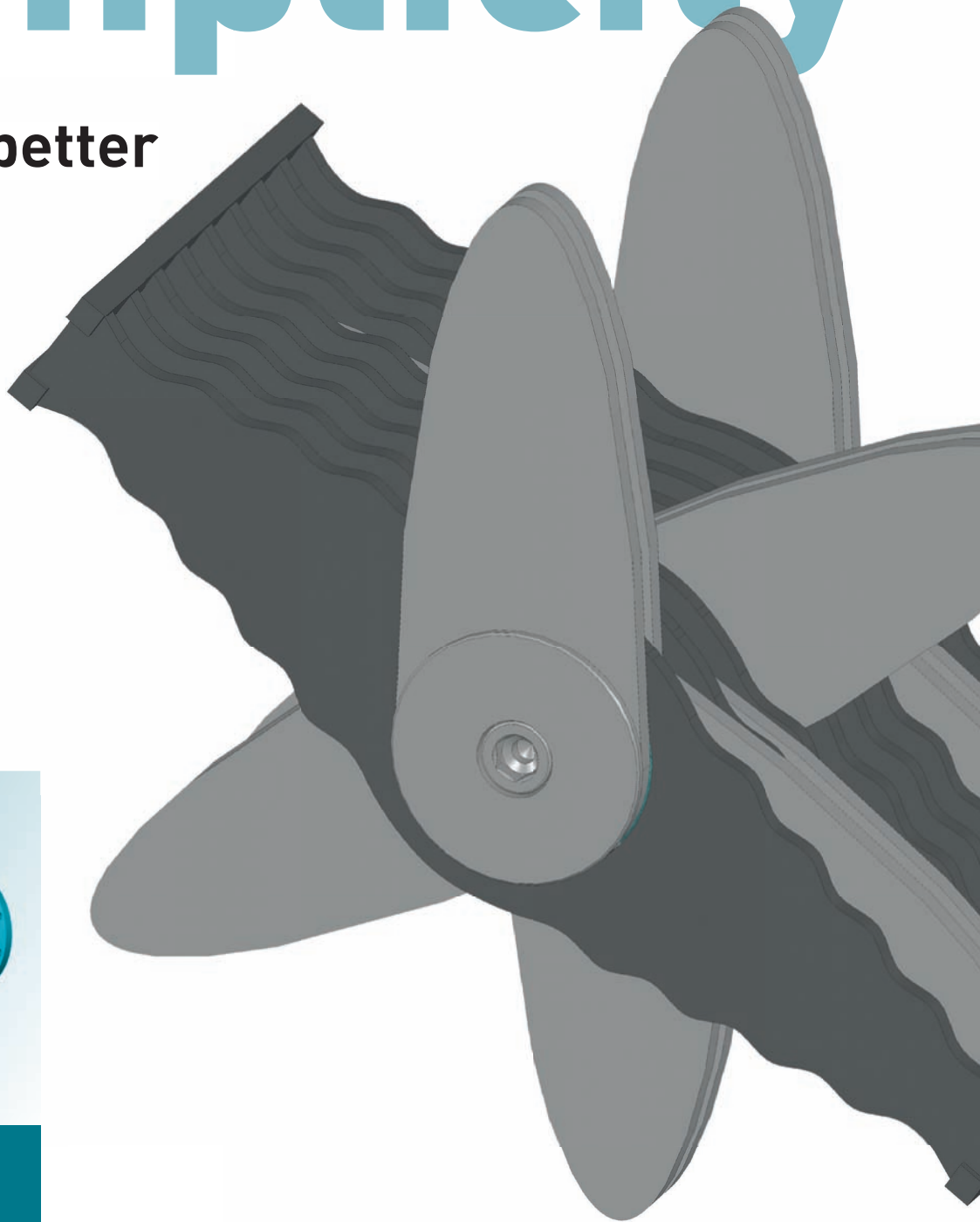
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**BÖRGER**®

*Innovation*

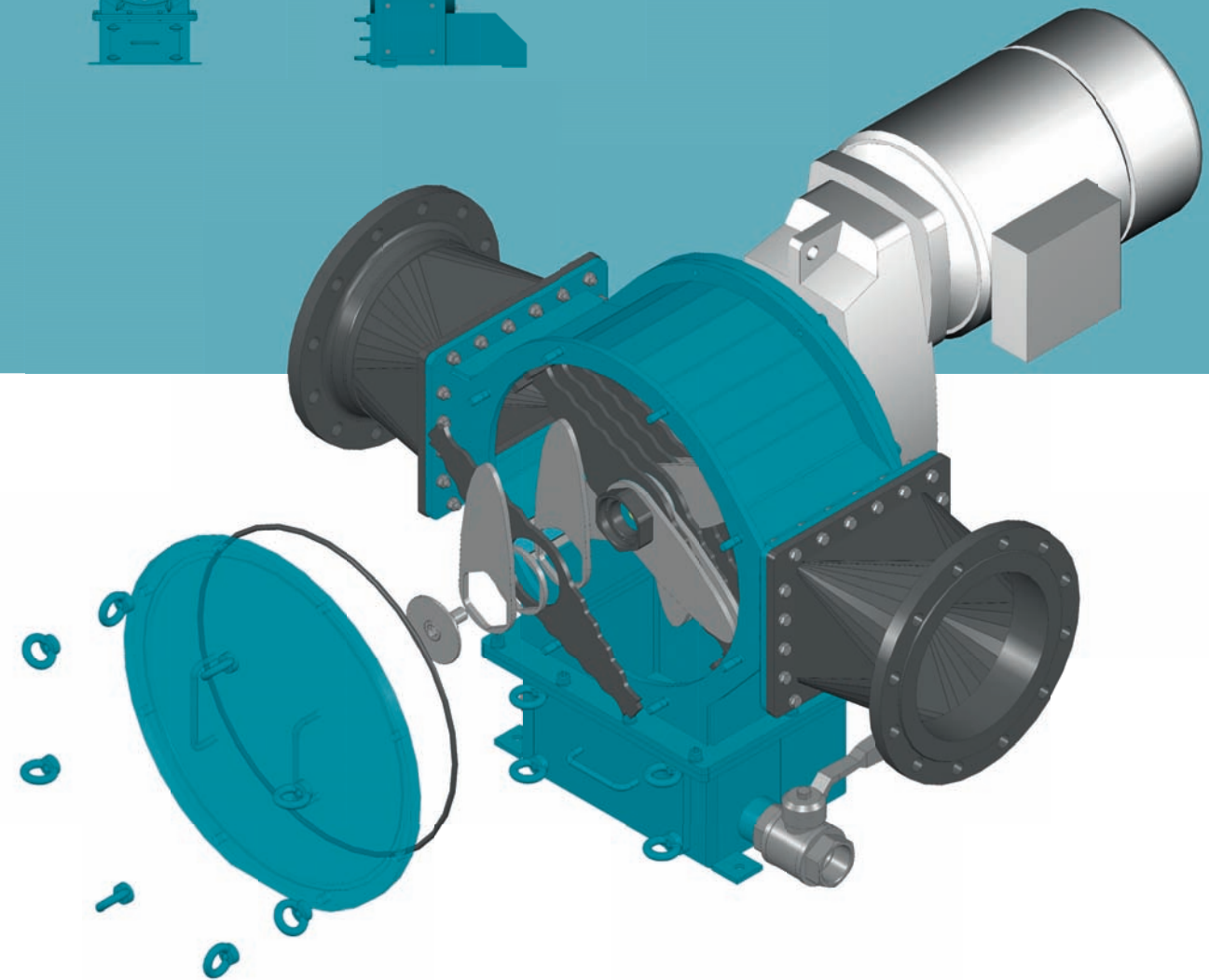
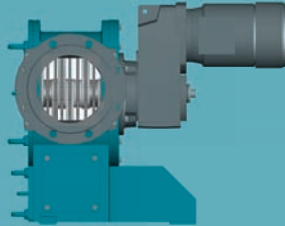
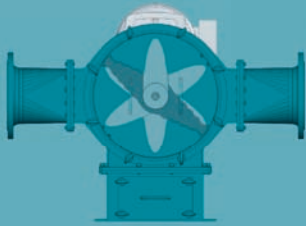
# Simplicity

**is simply better**



**Rotorscreen**

# Construction and Principle Rotorscreen



The Rotorscreen is a robust chopping unit using inline design. Knives and counter knives are pushed on to the carrier shaft alternatively. The counter knives are fixed stationary inside the casing. The rotating shaft is directly driven via the drive and bearing assembly. The Rotorscreen with its rough macerating effect allows for high throughput capacities. Solids

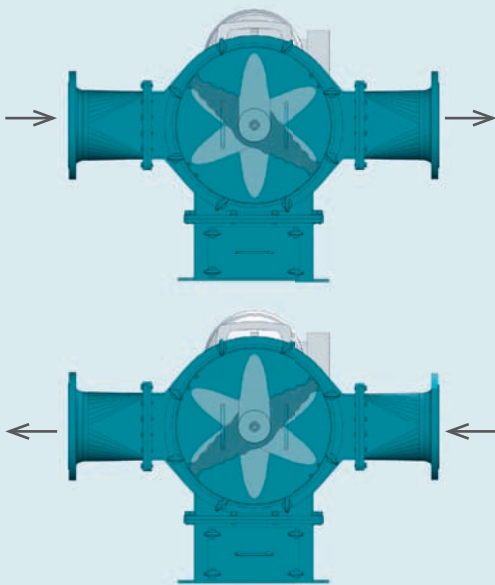
laden fluid is fed through the Rotorscreen. Separation of hard particles is achieved by knife rotation against fixed counter knives. Stones and debris drop into the debris collector. Reduce-able solids are chopped by further knife rotation against the fixed knives. Both Knives and counter knives are reversible and can be used from either side.

**Rotorscreen – designed for simple and effective operation.**

# Advantages

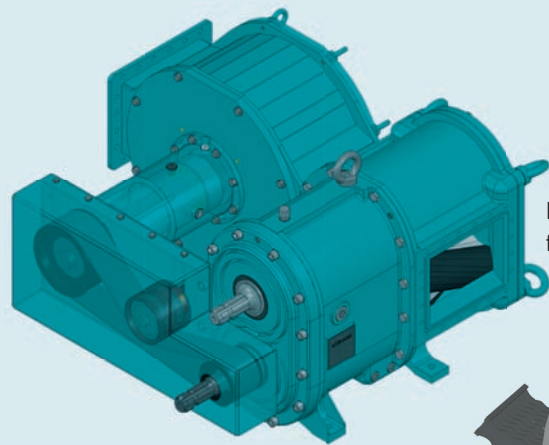
- Throughput up to 700 m<sup>3</sup>/m (3,000 usgpm), depending on the model
- Rotorrechen – compact, space-saving, single shaft design
- Variable flow direction – Adjustment by modification of stationary knives fitting
- Rotating shaft in oil filled bearing carrier
- Equipped with our standard Börger mechanical seal - 1.000 times approved
- Quench chamber between fluid and drive gear guarantees safety
- Knives and counter knives can be used multiple times just by turning them

## Reversible Direction of Flow



The Rotorrechen is designed modular and can be used for various solids-reducing duties with reversible operating.

## Combined Unit Rotorscreen and Rotary Lobe Pump

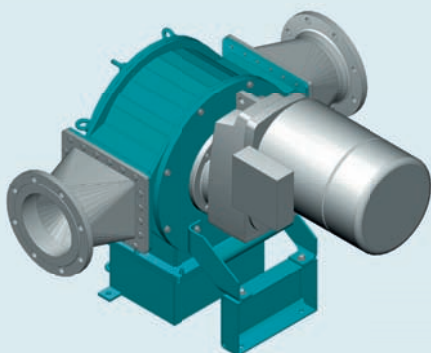


Driven via  
flat belt

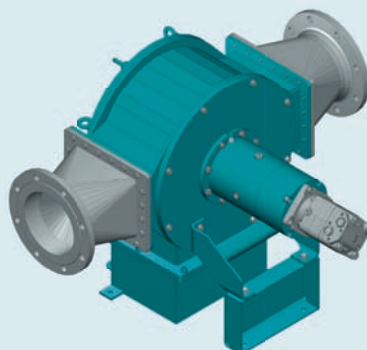
- short direct passage
- robust rotating knives
- crescent shaped counter knives
- machine with own bearing system and mechanical seal
- MIP design: Simply open the quick release cover and one single screw allows access to service parts.



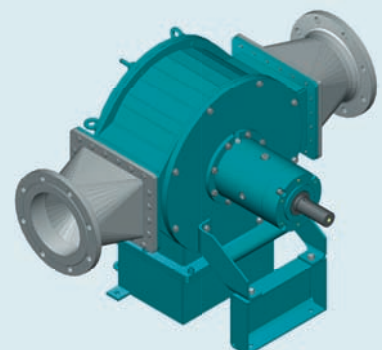
## Drive varieties



with parallel  
geared electric motor



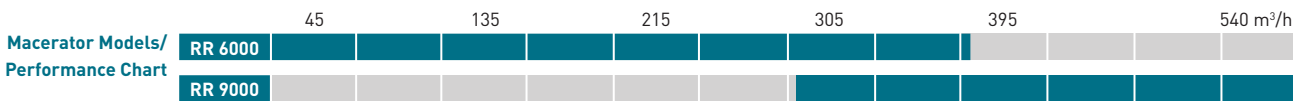
with  
hydraulic motor



with bearing carrier  
and bare shaft

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The Rotorscreen is used in a dual-stage Biogas plant in the connecting pipe between the main digester and the secondary digester. It is installed just before the Börger Rotary Lobe Pump. In this plant several silages (Corn, Sorghum, Grass, Rye) and dried chicken manure are used. The flow rate is app. 12 m<sup>3</sup>/h.

#### TECHNICAL SPECIFICATIONS

Rotorscreen 6000		
Flow Rate	12 m <sup>3</sup> /h	55 usgpm
Power	7,5 kW	10 HP



The Rotorscreen is installed in the suction pipe of a pump for digester circulation. In the circulation process occasionally pigtailed are built, which frequently block the used centrifugal type pumps. The necessary manually cleaning is extensive and less pleasant. As from installation of the Börger Rotorscreen there were no blockages any more. Another centrifugal pump – without Rotorscreen – used in parallel, still suffers blockages frequently. The throughput is app. 100 to 200 m<sup>3</sup>/h.

#### TECHNICAL SPECIFICATIONS

Rotorscreen 6000		
Flow Rate	< 200 m <sup>3</sup> /h	< 880 usgpm
Power	9,2 kW	12,3 HP