

## SUBSTRATE OPTIMIZATION WITH SUPRAJET®

### More value from your bio-gas plant

With our innovative Suprajjet® technology, you get the maximum out of your biogas plant. The Suprajjet® unit uses cavitation effects to further split up the fermentation substrate. The resulting forces are large enough to breach the cell membranes in the plant portion of the substrate.

After having been treated this way, the substrate releases a higher amount of nutrients with larger particle surfaces, so that it can be converted quicker into biogas by the microorganisms in the plant. As a result, more biogas can be produced from the same amount of substrate, or less substrate can be used to produce the same amount of biogas.



### Benefits

- ▶ More biogas from the same amount of substrate
- ▶ Faster biogas production
- ▶ High energy efficiency
- ▶ Improved viscosity (easier to stir)

### Untreated substrate



### Treated substrate





## BENEFITS FOR YOUR BIOGAS PLANT

### More biogas + same amount of substrate || Less substrate + same amount of biogas

- ▶ Longer retention time
- ▶ Reduced supply runtimes – labour, machine, power, substrate costs
- ▶ Reduced matter transport in BGP – pump runtime
- ▶ Reduced fermentation residues – disposal cost

### Faster availability of fresh matter || Reduced specific energy consumption

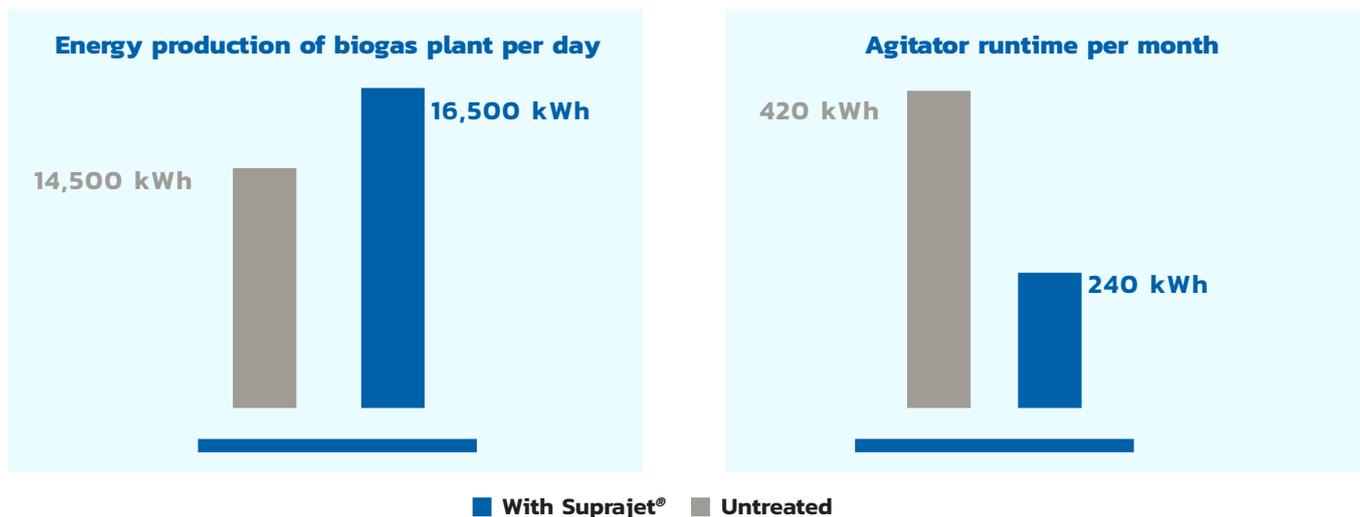
- ▶ Easier to stir – agitators use less power
- ▶ Improved flow characteristics – process pumps use less power

### Less wear due to upstream wet chopper

- ▶ Protection of machines from foreign particles
- ▶ Machine wear limited to conveyor units
- ▶ Less wear compared with alternative dissolution methods (extrusion, hammer mills, turbo crushers)

### Return on investment after 2 to 3 years

- ▶ More volume, or less mass
- ▶ Faster availability of fresh matter
- ▶ Easier to stir



**15 %**

**Increase**

**50 %**

**Decrease**

Suprajjet® is a registered trademark of BWS Technologie GmbH