Less sludge. More gas. And the best bottom line.

GSD: VTA's patented process for disintegrating sewage sludge with ultrasound.

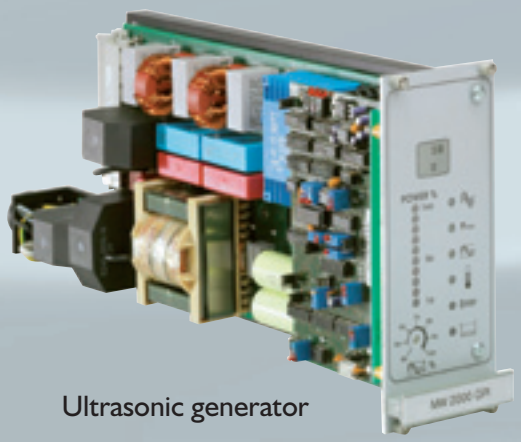
VTA®

www.vta.cc

The original. With ultrasound.

Maximum sludge treatment efficiency, stable digestion and lower costs: Those are the benefits of ultrasonic sludge disintegration (GSD), a process patented by VTA Technologie GmbH.

In VTA's GSD reactors, titanium ultrasonic oscillators apply a frequency of 25 kHz to cavitate the sludge. By breaking down the floccular or cellular structure of the sludge and improving its viscosity, organic substances are digested with maximum efficiency. The biogas yield rises as a result and the amount of sludge requiring disposal is reduced.



Ultrasonic generator

Up to 30 percent more biogas

Tap the energy in sewage sludge: GSD results in significantly more biogas, which can be converted into electrical power and heat.

Up to 20 percent less sludge

Cut disposal costs: The effective degradation of organic matter and improved dewatering reduce the volume of sludge.

Up to 20 percent less polymer

Dewater sludge more efficiently: GSD significantly reduces the need for flocculation agents.

No foaming in the digester tower

For reliable operation: Filamentous bacteria are destroyed, thus preventing or reducing digester foaming.

Swift amortization

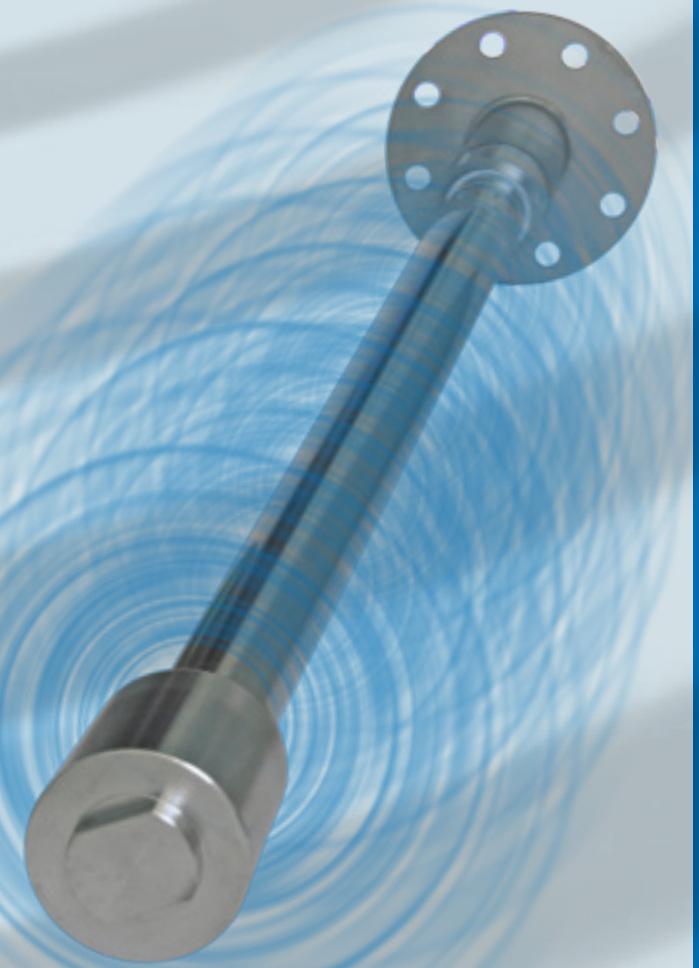
Under favorable conditions, the investment in a GSD system pays for itself after three years.

Leverage potential fully

GSD cuts digestion times and makes optimum use of available capacities. This reduces the need for building investment and permits the additional digestion of biogenic substances (co-fermentation, external sludges).

A single technology. Numerous advantages.

VTA GSD reactors are innovative products that raise the bar with their advanced technology.



// Universal deployment

Thanks to pressure-free, fully automatic operation, VTA GSD reactors can easily be integrated or retrofitted into any sewage treatment plant.

// Flexibility

GSD systems can run at continuously variable energy levels for multistage disintegration in a single processing step.

// Economy

GSD reactors continuously apply intense ultrasound to the sludge for a high degree of digestion with low energy usage.

// Long life

A rugged design and quality titanium and stainless steel components by renowned manufacturers guarantee a service life in excess of 45,000 operating hours.

// Low maintenance

Annual servicing and the usual visual inspection during operation are completely sufficient.

// Reliability

GSD operation is absolutely dependable and clog-free. Flushing the system or extensive pretreatment of the substrate is not required.

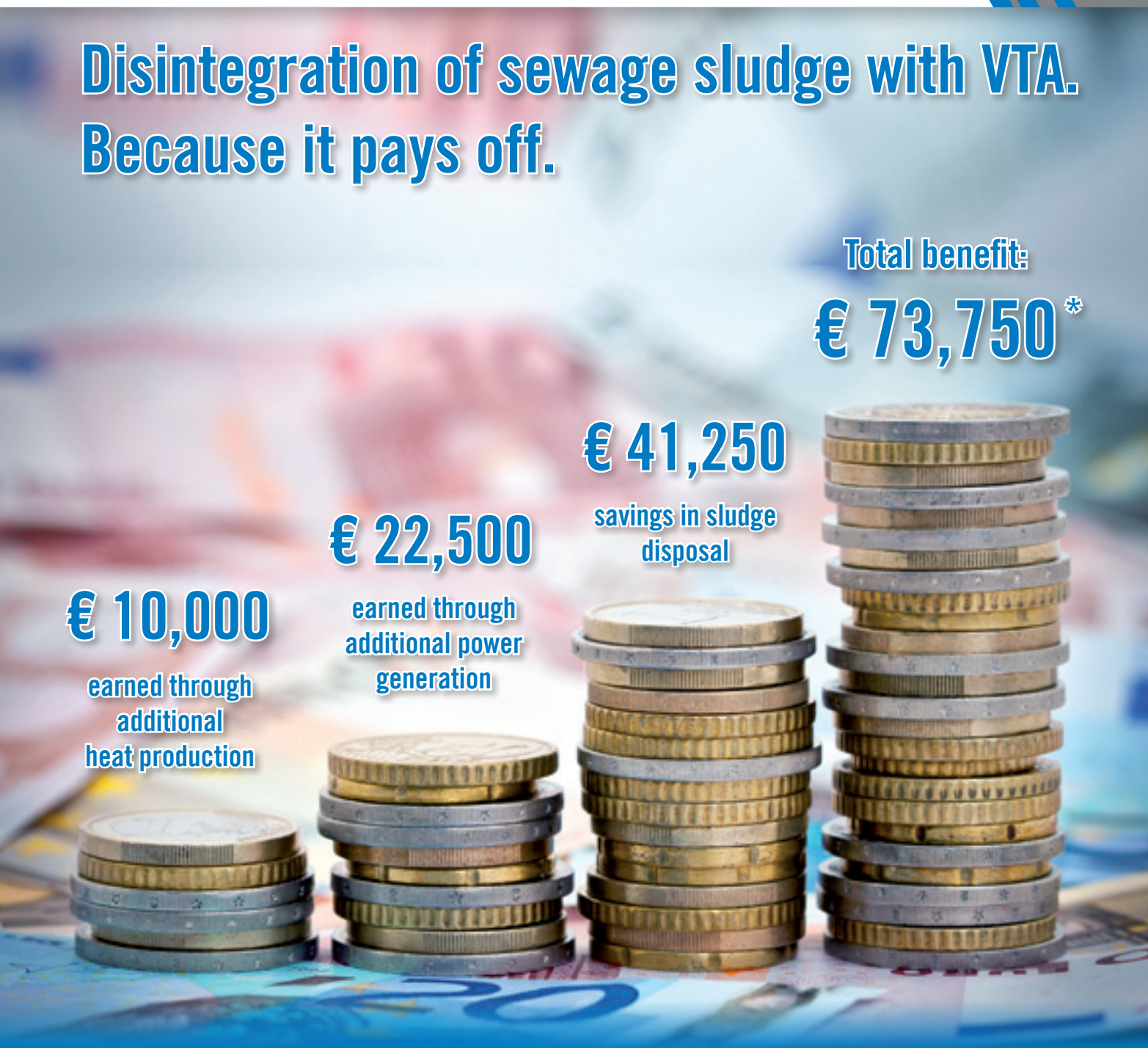
Sludge digestion optimized with GSD: The sewage treatment plant in Halle an der Saale, Germany, is among the satisfied users of VTA ultrasound technology.

A circular arrangement of oscillators applies ultrasound uniformly to the sludge.

Maximum flexibility thanks to modular GSD reactor design.

GSD control panel: fully automatic operation, state-of-the-art controls.

Disintegration of sewage sludge with VTA. Because it pays off.



€ 1,000
for replacement parts

€ 1,790
for maintenance

€ 4,770
for power consumption

Total cost:
€ 7,560

** Figures based on a VTA reference sewage treatment plant for 75,000 inhabitants*

VTA: The synonym for innovative environmental engineering

VTA Technology GmbH is backed by the expertise of the Austrian VTA Group. Since its founding in 1992, VTA has been setting standards in environmental engineering and has been successful worldwide.

VTA's numerous high-tech solutions include system products of unparalleled efficiency for optimizing the operation of sewage treatment plants, as well as technological innovations such as the MicroTurbine for generating power from biogas.

Cycles characterize nature. Thinking in cycles characterizes VTA's corporate philosophy.

VTA® Technologie GMBH

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