

# GEA BIOSOLIDS GRANULATOR

Innovative dry-on-demand solution for sludge treatment





## GEA BIOSOLIDS GRANULATOR

Innovative dry-on-demand solution for sewage sludge treatment – with stackable end product and minimized pathogen regrowth.

The GEA biosolids Granulator is an innovative dry-on-demand solution for wastewater biosolids treatment from municipal and industrial wastewater treatment plants by combining existing centrifuge-based dewatering with established drying technology.

A perfect solution for plants with limited disposal and recycling capacities that want to future-proof their processes in terms of circular economy, sustainability and ecological footprint.

## BIOSOLIDS CAN BE SAFELY AND SUSTAINABLY RECYCLED TO AGRICULTURAL LAND.

This unique process utilizes small dewatered particles – ejecting directly from the rotating centrifuge bowl – which are then immediately heat-seared and fixed by the primary direct heat injection stream. These solids are then further dried by the secondary hot airflow in the main drying chamber. This results in an enhanced dried granulated material with up to 50 % dry solids with a sustained pathogen count below 100,000 cfu/g, which conforms to Class B of the EPA norm (40 CFR Part 503).

It's possible to achieve these process results using either low grade waste heat available at site (75 – 90  $^{\circ}$ C), heat generated from a fuel source or a combination of both.

The end product opens additional recycling opportunities to the end user such as agriculture, composting or incineration as a fuel/fuel additive.



Compliant to Class B of EPA Norm 40 CFR 503 Treated biosolids can be safely and sustainably recycled to agricultural land.



<100K

cfu/g reduced pathogen count



Up to 50 % savings on transportation and disposal costs One container of solids less per day.



12

tons of water can be removed daily



#### Learn more

The animation vividly illustrates the working principle of the GFA biosolids Granulator.

## FEATURES AND BENEFITS

### Suitable for field storage

End product does not degrade due to weather.

#### **Incineration friendly**

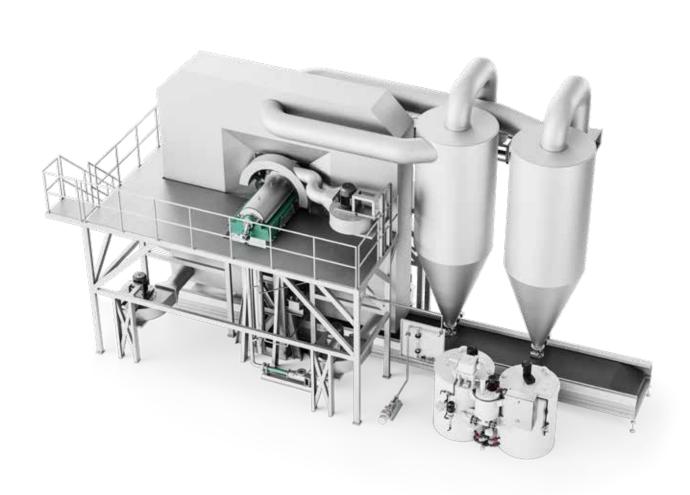
Granulated biosolid with a high BTU value.

### Limited pathogen regrowth

Low re-infection risk.

Combination of robust and proven system components

Utilization of standard service methods.



### Drying performance on demand

Final product dry solids can be controlled to different levels.

### Efficient use of waste heat

Energy efficient circular economy.

### Flowing, consistent, small particle size

 Easy to convey and mix with other products without the need for back-mixing.

#### **Continuous process**

Predictable throughput
 capacity, no interruptions of the dewatering or drying process.

# Sustainability counts. GEA environmental Decanters set the bar in dewatering levels. In practice, having less biosolids to dispose of saves transport costs, lowers energy consumption for drying and burning, and thereby reduces carbon footprint. It's a win-win situation for wastewater treatment plants and the environment.

## WE HELP TO PROTECT, FEED AND POWER THE WORLD

GEA is an international technology company and one of the world's largest providers of process technology for the food industry and a number of other sectors such as environmental technology, with a focus on wastewater, sludge, slurry and fermentation residue treatment.

"We help to protect, feed and power the world" - this is the motto we follow when we provide innovative solutions that combine environmental protection with high societal benefits and cost effectiveness. In other words: our products, components and processes help to make costs more efficient for

- Protecting water and limited raw materials and feeding them back into the natural cycle
- Optimizing production quality and making food safer
- Using existing energy sources in a way that protects the environment and developing new energy sources

Centrifugal separating technology made by GEA has been setting worldwide standards based on this philosophy for 125 years with our processes and production cycles. We call it "engineering for a better world".



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