

BIOSOLIDS | BIOGAS

ELOVAC[®]

PHOSPHORUS SEQUESTRATION SYSTEM



Bringing water to life

ELOVAC®

Experience the ultimate in efficiency and convenience with our completely skid-mounted, plug-and-play, compact phosphorus sequestration system.

Designed to prevent struvite scaling, this innovative solution ensures seamless integration and optimal performance for your operations.



EFFICIENT AND MODULAR DESIGN: Our system is simple, compact, and modular, ensuring seamless integration into your operations.

ENHANCED DEWATERABILITY: Boost dewaterability by up to 5%, optimizing your processes and improving overall efficiency.

PHOSPHORUS LOAD REDUCTION: Significantly reduce the phosphorus return load to the headworks of your plant, enhancing performance and sustainability.

METHANE RECOVERY: Degassing enables additional recovery of methane from digested biosolids, contributing to energy savings and environmental benefits.

PLUG-AND-PLAY CONVENIENCE: Enjoy a hassle-free setup with our plug-and-play design, requiring no aeration for operation.

OPERATING PRINCIPLE

1 CONTINUOUS FEEDING

Sludge is consistently fed into the degassing reactor tank, ensuring uninterrupted operation.

2 VACUUM EXTRACTION

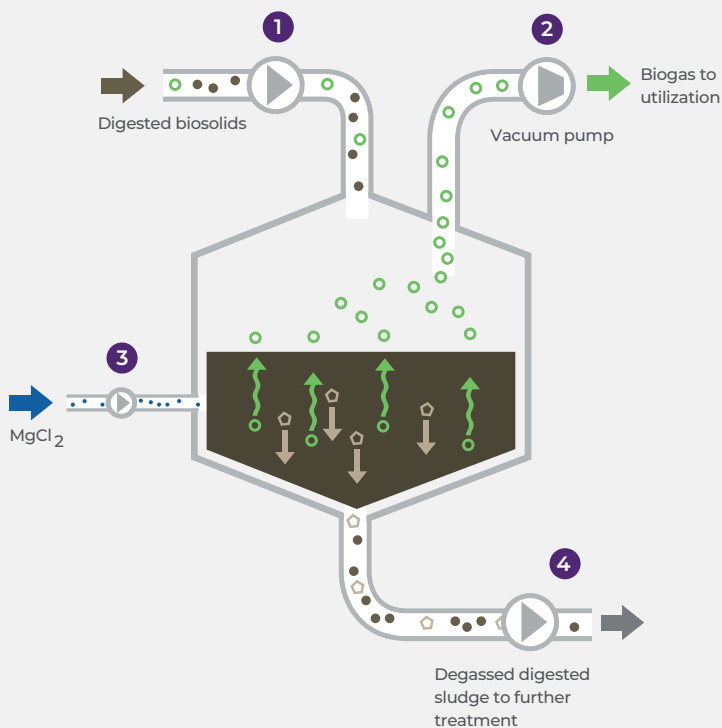
A vacuum pump extracts methane and CO₂ from the digested sludge, raising the pH in the reactor tank. This process captures additional biogas, enabling energy-positive operation and significantly reducing greenhouse gas emissions.

3 PHOSPHORUS PRECIPITATION

MgCl₂ is added to the digested sludge in the reactor tank. Combined with the elevated pH, this creates an ideal environment for precipitating and removing phosphorus from the biosolids.

4 EFFICIENT DISCHARGE

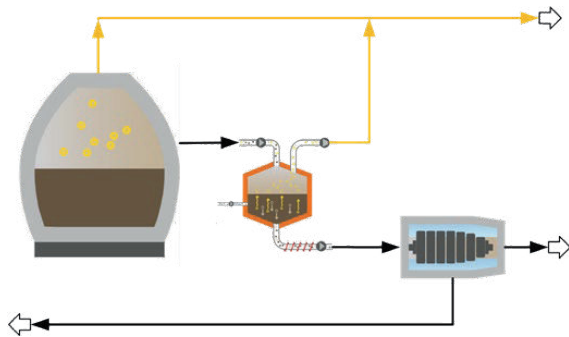
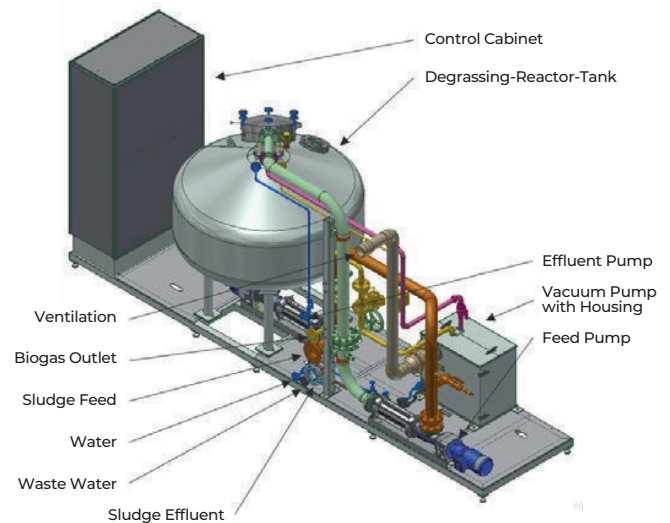
The system continuously discharges degassed biosolids with precipitated struvite to dewatering. The ELOVAC® system enhances dewatering by up to 5 percentage points. The combined effect of degassing and phosphorus precipitation results in disposal cost savings of up to 20%.



OPTIMAL INSTALLATION AND AUTOMATION

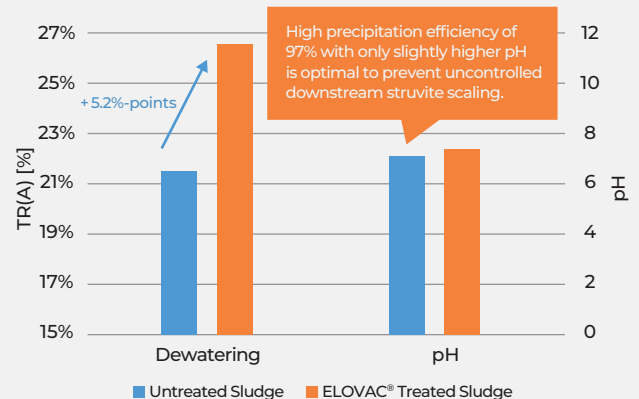
HOW IT WORKS

Typically, the ELOVAC® system is installed downstream of the digester and upstream of the dewatering process. This fully automated system minimizes the need for operator intervention, ensuring smooth and efficient operation. For added convenience and support, the system can be remotely monitored by Ovivo through its proprietary WaterExpert™ app, providing constant oversight and assistance.



PROVEN SUCCESS

Our technology consistently delivers results that exceed predicted values, showcasing its exceptional performance. Additionally, the simplicity of the system leads to lower maintenance costs, minimizing downtime associated with tank cleaning and regular pump maintenance.



*Results of installed ELOVAC® in Lingen (Ems), Germany

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