



MINIMIZED BREWERY WASTE

Kieselguhr dewatering for more yield
and sustainable operations.

CUTTING WASTE ...



... and boosting savings in breweries.

The use of Kieselguhr in the filtration process in breweries has been a proven technique for many years. However, it has become more difficult in recent years due to stricter regulations. Kieselguhr slurries have a high water content, making them difficult to handle and expensive to transport and dispose of.

Kieselguhr, also known as diatomaceous earth (DE), is a whitish, powdery substance derived mainly from the shells of fossil diatoms. Breweries use Kieselguhr as a filter aid to remove yeast and turbidity from beer.

Increased efficiency: decanter centrifuges reduce the volume of Kieselguhr consumed by more than 80%

Dewatering with a decanter centrifuge reduces the volume of Kieselguhr consumed by more than 80%. GEA sludge Decaners are specially designed for the abrasiveness of the Kieselguhr slurry.

The advantages of decaners over other technologies are high separation efficiency, high dryness and high degree of automation.

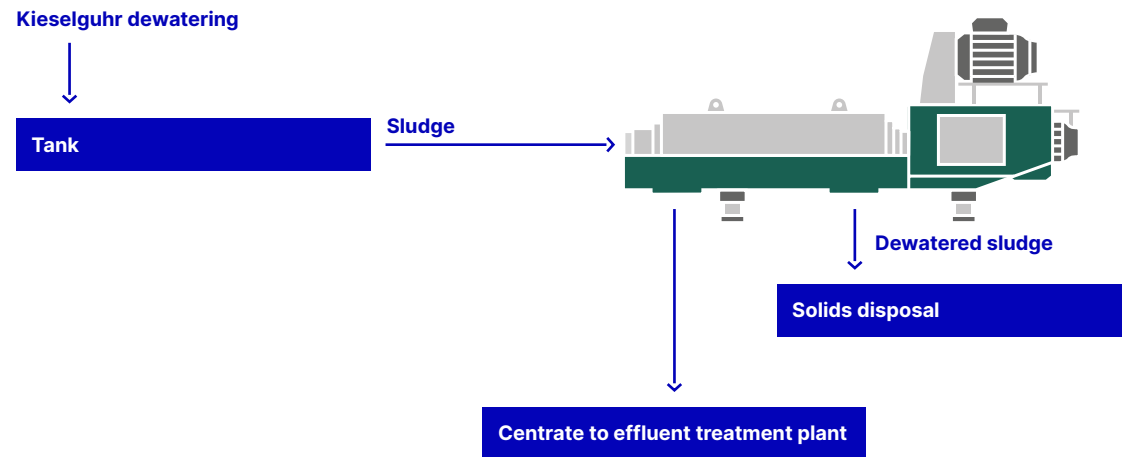
GEA can supply all the equipment required for the operation of the dewatering system, such as feed pump, flow meter, flushing line, gate valve and a compact control cabinet to control the entire plant.

The benefit lies in the consolidation of all elements from a single source, facilitating swift commissioning and seamless handover processes.

GEA sludge Decaners prove effortless plug & play

The high level of standardization and modular, compact design of GEA sludge Decaners facilitate easy plug & play integration in established processes with little need for adaptations and fast delivery time.

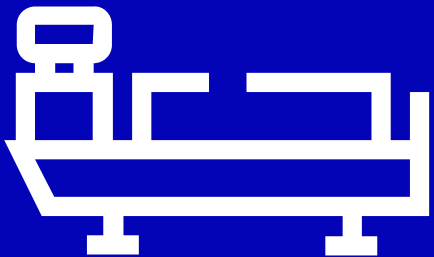
Efficient waste management reduces disposal costs



The spent Kieselguhr slurry is collected and conveyed to the decanter centrifuge by a screw pump. The decanter separates the Kieselguhr from the liquid. The dewatered Kieselguhr is then collected in a container for disposal.

The reduced amount of waste saves disposal and transportation costs. In addition, the Kieselguhr-free fluid is now easier to process in a wastewater treatment plant.

GEA DECANTERS ARE THERE FOR YOU THROUGH THICK AND THIN.



Their strengths lie in using continuous solid-liquid separation for optimum processes with the best results – for both dewatering wastewater sludge and the treatment of biomass.

Decanter centrifuges from GEA are the perfect solution when the solids content in suspensions is particularly high. They ensure continuous clarification performance with maximum dewatering, as well as the separation of liquids with the simultaneous removal of solids. This is based on a high bowl speed, a powerful drive and a scroll speed which automatically adapts to the solids load in the feed.

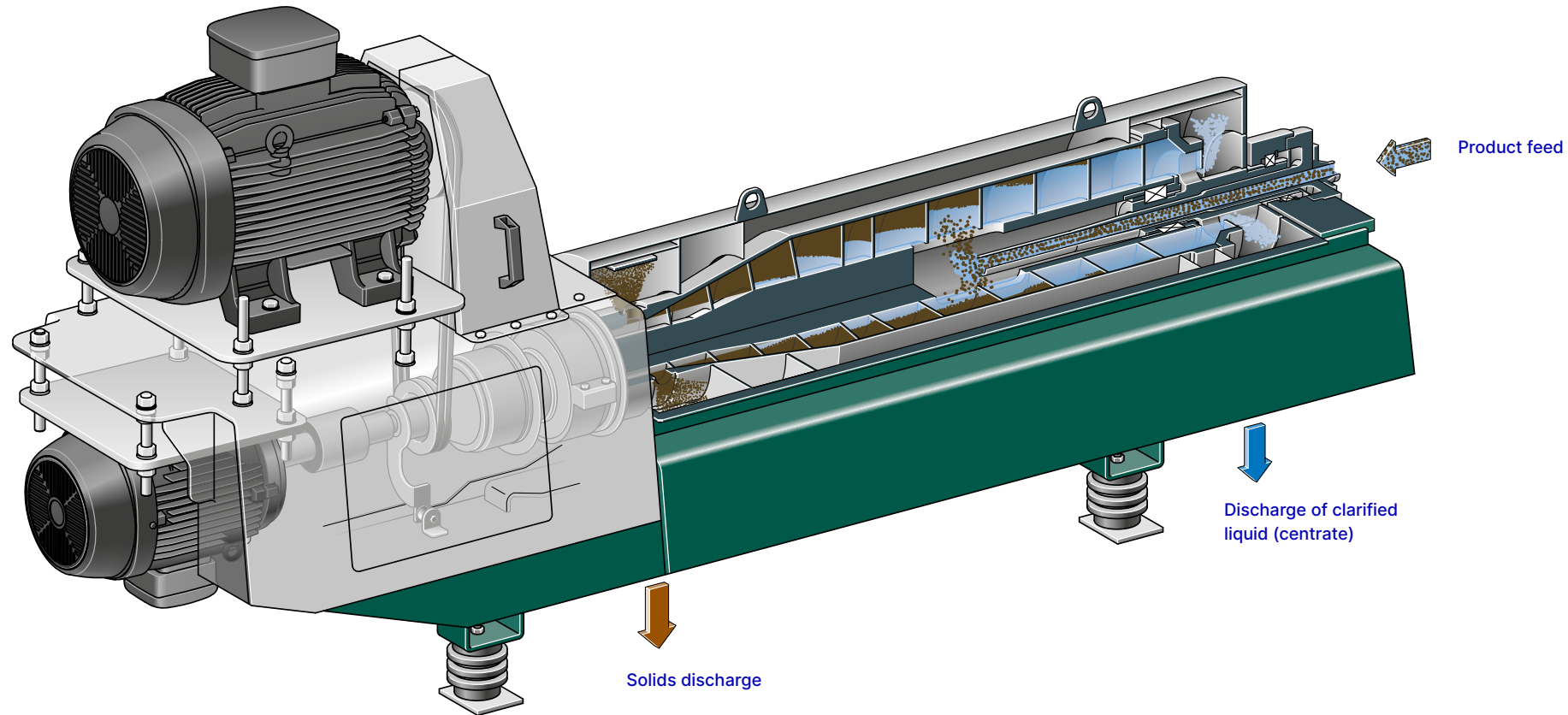
The development of our decanter portfolio is based on 130 years of GEA expert knowledge as well as the ever-changing requirements and findings from a variety of different areas of application and use. The result is robust, reliable high-performance decanters which provide the best possible added value to users in agriculture and industrial and municipal wastewater treatment.

Also known as solid-wall scroll centrifuges, decanters work in a similar way to tubular centrifuges but have a horizontal scroll which rotates with a low speed difference to the bowl.

In this process, the solids are continuously separated and discharged. The result is high separating performance in a small space.



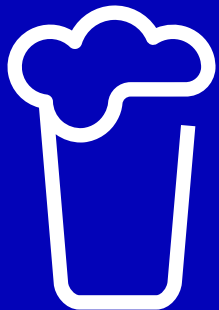
2-phase decanter specifically for the requirements of dewatering of industrial and municipal wastewater sludge



GEA decanter features

- Maximum productivity
- High-quality materials
- Special wear protection against abrasive materials
- Small footprint
- High degree of operating reliability
- Less manpower required
- Simple to operate
- Low operating costs
- Ease of maintenance

EXTRACT REFERENCE INSTALLA- TIONS



GEA has supplied several decanter centrifuges to local and multinational breweries.

We are constantly improving our know-how together with our customers to meet or exceed their expectations.

Place of installation	Machine type	Capacity*
Czech Republic	GEA sludge Decanter pro 2000	3 m ³ /h
Serbia	GEA sludge Decanter pro 1000	3 m ³ /h
Romania	GEA sludge Decanter pro 2000	4 - 5 m ³ /h
The Netherlands	GEA sludge Decanter pro 2000	4 m ³ /h
Russia	GEA sludge Decanter pro 1500	2 - 3 m ³ /h

*Capacity depending on sludge consistency at decanter inlet





Achieve over 80% volume reduction

GEA sludge Decanters reduce the volume and thus ensure low transport and disposal costs. They are characterized by their robustness and efficiency and ensure safe operation.



VIDEO



GEA environmental
Decanter lines

WE HELP PROTECT, FEED AND POWER THE WORLD.

GEA is one of the largest technology suppliers for food processing and a wide range of other sectors such as environmental technology, with a focus on wastewater, sludge, manure and fermentation residue treatment.

We help 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 users by

- Protecting water and limited raw materials and feeding 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 separation technology made by GEA has been setting standards based on this worldwide with perfect processes and production cycles. We call it “engineering for a better world”.

Safeguarding our resources

GEA environmental Decanters provide the highest dewatering levels. In practice, having less sewage sludge to dispose of saves transport costs, lowers energy consumption for drying and burning, and thereby reduces CO₂ emissions. It's a win-win situation for wastewater treatment plants and the environment.

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