SAFEGUARDING OUR RESOURCES TO PROTECT, FEED AND POWER THE WORLD.

GEA environmental Decanter lines

GEA Engineering for a better world.

GEA.com

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HER TOMORROW IS OUR TODAY

Video

9

By 2050, the world's population will grow from 7.6 billion today to over 9.8 billion people.

⅔

Two thirds of these people will live in cities.

1%

97.5% of the world's water is salt water. And of the remaining 2.5%, only about 0.3% is easily available for humans to use.

The future of our world undoubtedly belongs to our children - especially in times of crisis and challenge, the well-being of future generations is more than ever at the centre of our efforts. We are always aware that every action we take today has a far-reaching impact - both positive and negative - on the world of tomorrow. That is why we work every day to ensure that the world we leave our children is a sustainable and liveable one, and that we actively contribute to shaping a better future for all. That the world we leave our children is a sustainable and liveable one, and that we actively contribute to shaping a better future for all.

We believe that together we can make a difference and that it is our duty to work towards a world in which all people can benefit equally from the innovations and advances of our time. A world that remains livable in the long term, however, requires a ubiquitous resource that transcends all boundaries: water. It is essential for life - and despite seemingly endless supplies, clean water is one thing above all else: limited.

It is therefore essential to adopt sustainable strategies and measures to ensure clean water in the future.

OUR SOLUTION: GEA ENVIRONMENTAL DECANTER LINES.

Video

With these machines, valuable materials can be extracted from sewage sludge, liquid manure and digestate in an energy-efficient and resource-conserving manner – with the best possible yield.

Our commitment to protecting and preserving our environment goes far beyond water treatment. We are setting an example that it is possible to conserve resources and use them sustainably - to improve the world of tomorrow and look optimistically to the future. Our solutions are our responsibility and our commitment to future generations.

Because we believe it is possible to create a world where everyone has access to clean water. A world where we protect and use our natural resources sustainably. A world where our children can grow up with a vision and without fear. So they can look forward to a livable, sustainable and clean future. Because we give our all every day for our children's future.

SAFEGUARDING OUR RESOURCES TO PROTECT, FEED AND POWER THE WORLD.

GEA is one of the world's largest suppliers of systems and components to a wide range of industries, including the food, beverage, and pharmaceutical industries. Our extensive expertise extends to areas such as environmental technology, with a particular focus on the treatment of water, wastewater, sludge, manure, and digestate.

Safeguarding our resources to protect, feed and power the world. We stay true to this motto by providing innovative solutions that combine environmental protection with high societal benefits and cost-effectiveness. Our products, components and processes contribute to cost efficiency for users by:

- 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

For more than 130 years, centrifugal separation technology made by GEA has been setting global standards for perfectly functioning 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 and reduces energy consumption for drying and incineration, thus reducing CO_2 emissions. It's a win-win situation for wastewater treatment plants and the environment.

GEA ENVIRONMENTAL DECANTER LINES

In municipalities, industry or agriculture, GEA environmental Decanter lines pro and prime play a key role in efficient wastewater treatment. With process results that ensure economical and environmentally friendly plant operation.

The decanters provide a high dewatering performance when processing sludge, manure and digestate. This guarantees the best yields for reusable solids and water with optimum volume reduction. The dried residual sludge can be disposed of, used as fertilizer or fed into a biogas system, with significant cost savings.

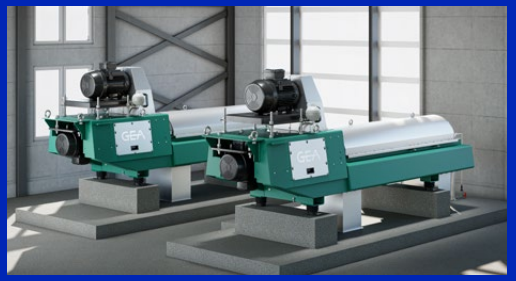
GEA environmental Decanter pro

- Standardized machine configuration for plug & play integration in processes with little need for adjustments
- High performance, economical investment and lifecycle costs
- Resource efficient product that carries the Add Better label
- Output range: 1 m³/h – 120 m³/h

GEA environmental Decanter prime

- Can be flexibly configured for highly complex preparation processes with individual requirements and large capacities
- Excellent performance and economical lifecycle costs
- Output range: 15 m³/h – 300 m³/h

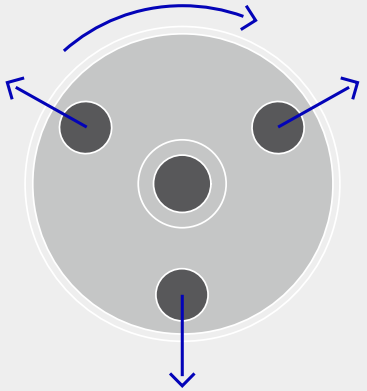
GEA environmental Decanter pro
High level of standardization makes it perfect for plug-and-play integration



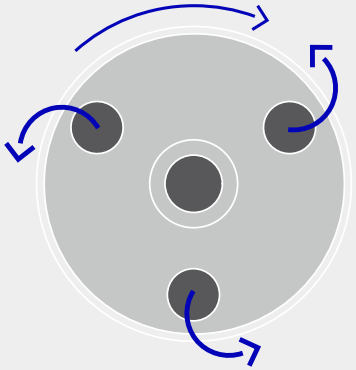
GEA environmental Decanter prime
Flexible specialist units for highly complex processes with large capacities

GEA ENERGYJETS

In decanter centrifuge operations, a significant portion of energy is consumed in discharging clarified liquids. GEA EnergyJets offer an innovative solution to reduce this energy loss.



Conventional liquid outlet



GEA EnergyJets

By integrating weir plates with flow deflection technology, GEA EnergyJets reduce energy consumption by up to 25%, depending on hydraulic flow rates.

As part of GEA's commitment to sustainability, EnergyJets have now become a standard feature in the GEA biosolids Decanter series. These decanters, often operating under high liquid loads, can significantly recover energy that would otherwise be lost, enhancing overall efficiency and reducing operational costs.

Up to

25

percent energy savings

A CLEAR DECISION FOR SUSTAINABILITY

The design of the GEA environmental Decanter pro series focuses on modularity, energy-efficient product handling, efficient use of electric motors, and the latest gear technology.

Resource-efficient solution
As one of our most resource-efficient solutions, our GEA environmental Decanter pro series carries the Add Better label*. Depending on the machine size, the GEA environmental Decanter pro series offers energy savings of 15 to 60 percent.

The Add Better label is validated by TÜV Rheinland and based on a calculation and documentation process that meets ISO 14021.

Explore further

*The Add Better label relates to the serial products GEA biosolids Decanter pro, GEA sludge Decanter pro, and GEA manure Decanter pro, released between 2018 and 2023. The comparison refers to the predecessor models.

HIGH-PERFORMANCE DECANTERS FROM GEA FOR A WIDE RANGE OF APPLICATIONS

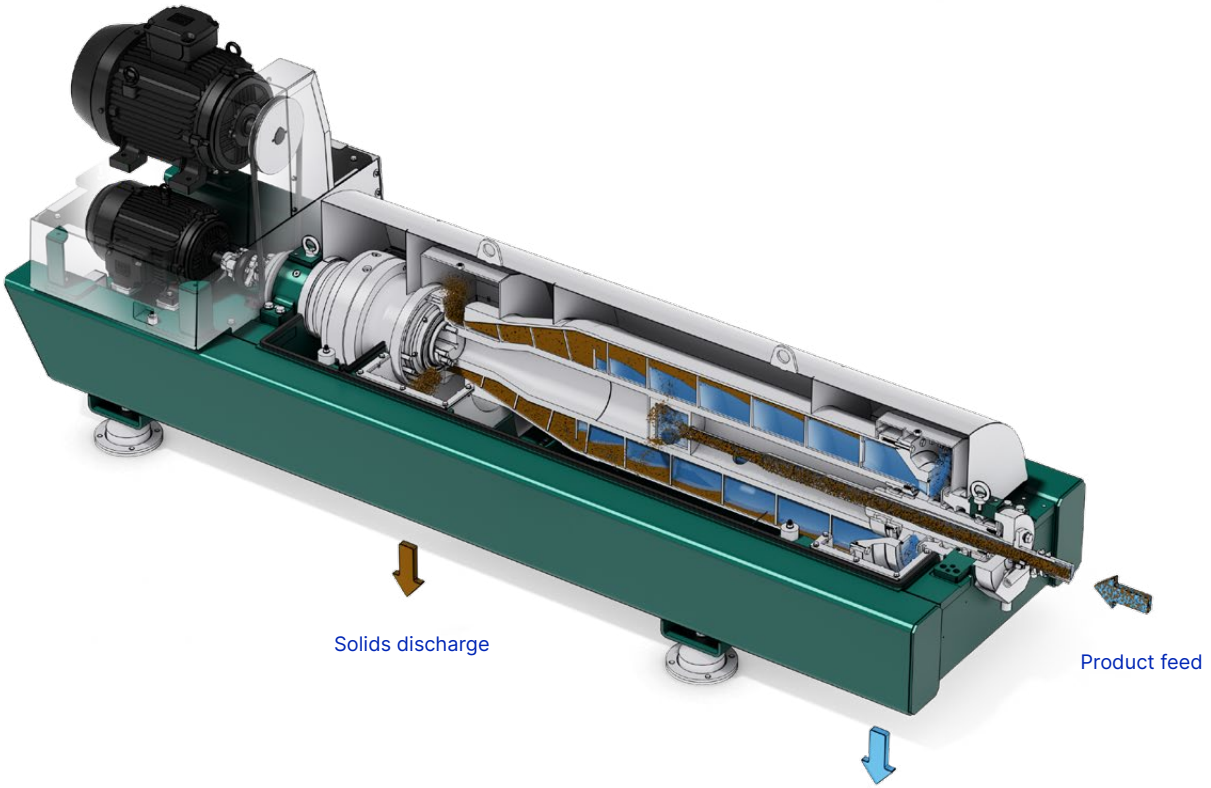
Their strengths lie in using continuous solid-liquid separation for optimum processes with the best results. The perfect decanters for efficiently treating wastewater sludge and biomass.

Decanter centrifuges from GEA are the perfect solution when the solids content in suspensions is particularly high. They ensure continuous clarification with maximum dewatering, and separate liquids while also removing 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 more than 130 years of GEA expert knowledge as well as the ever-changing requirements and findings from various areas of application and use. This allows us to make robust, high-performance decanters which provide the best possible added value for users in industrial, municipal and agricultural sludge 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 sludges



GEA Decanter features:

- Maximum productivity
- High quality materials
- Small footprint
- High reliability, uptime, and low wear
- Less manpower required
- Easy to operate
- Low operating costs
- Wide range of applications
- Ease of maintenance

OPTIMUM DEWATERING REDUCES COSTS FOR SLUDGE DISPOSAL

The targets set by water protection policies place ever more stringent requirements on wastewater treatment. A further increase in sewage sludge volume is therefore expected across the world, resulting in higher treatment and disposal costs.

Municipalities and industries are faced with the task of disposing of the increasing amounts of sewage sludge in an environmentally friendly and cost-effective way. They must also adhere to the latest recycling requirements for materials such as phosphorus and nitrogen. Optimum, economical dewatering of sewage sludge is therefore a key step in all types of disposal, including incineration, landfilling and agricultural soil application.

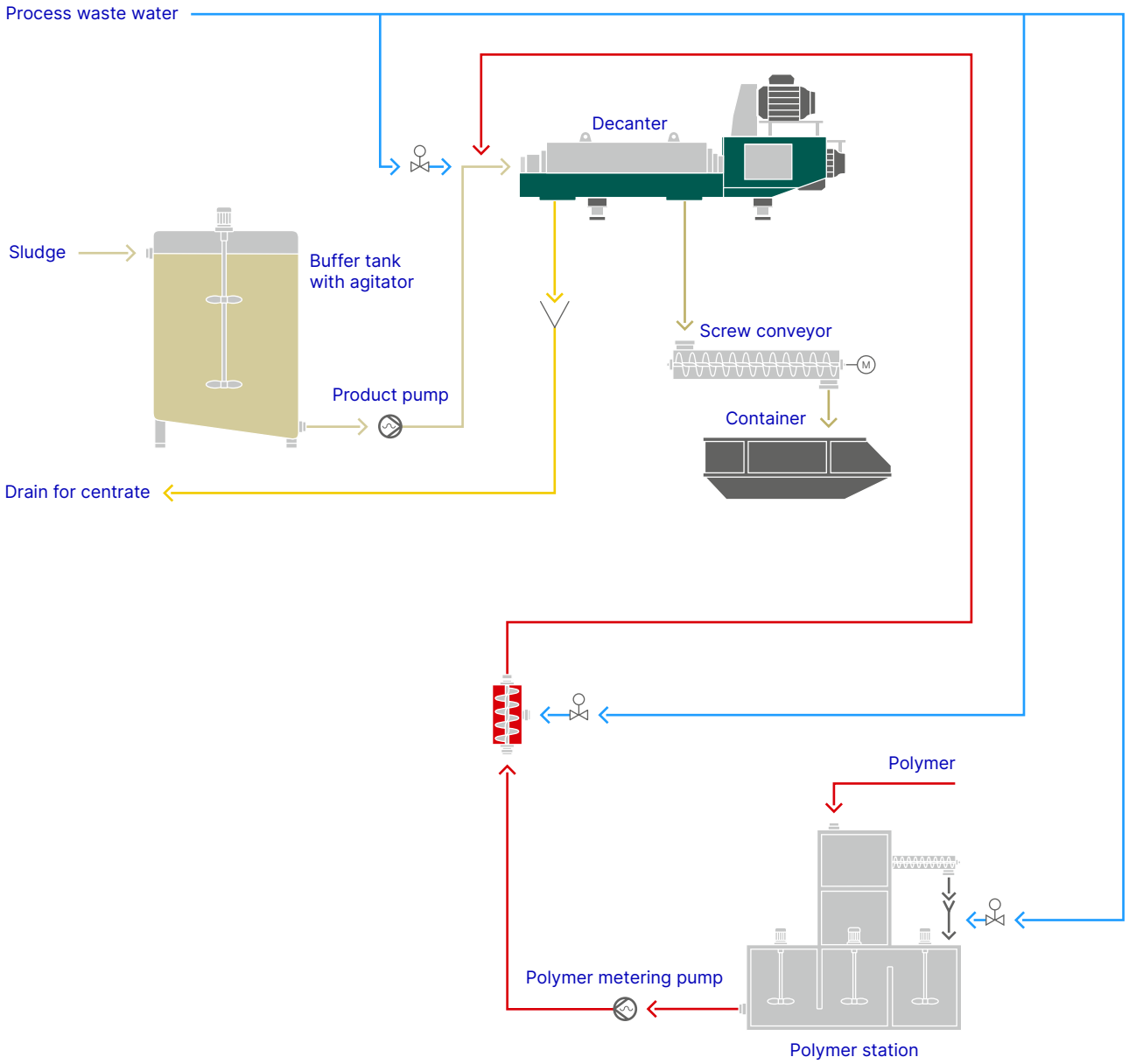
Focusing on the essentials

The type of disposal and associated requirements for the level of dewatering determine the economic efficiency of dewatering equipment. Every increase in concentration of solids is expedient with regard to incineration and saving on disposal and transport costs.

Less is more

Decanters from GEA ensure a high level of dewatering with significantly reduced sludge volumes thanks to, for example, a high g-force for optimum separation and process-optimized torque control.

Sludge dewatering



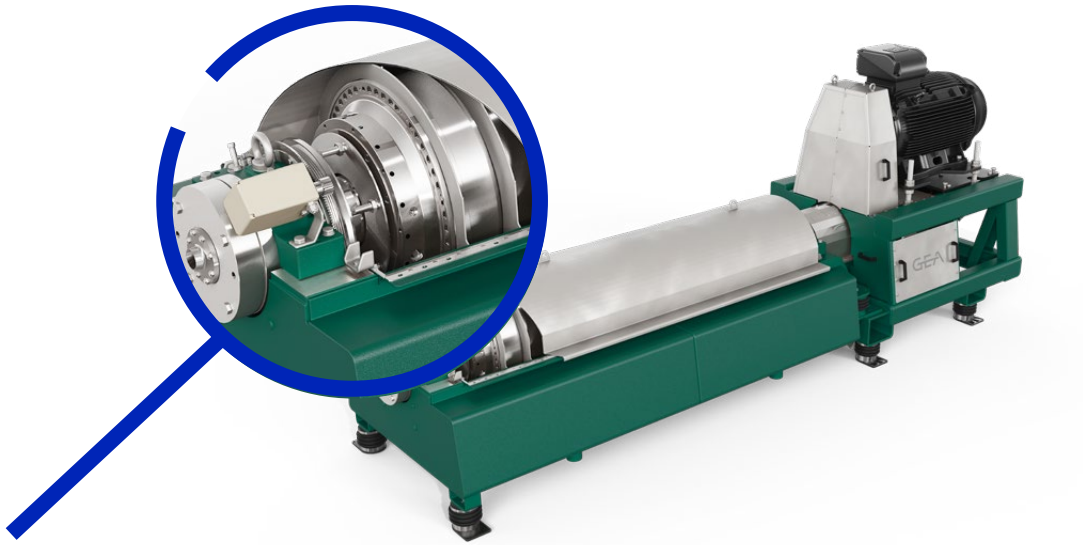
Your advantage: Substantial cost savings

- In transportation and landfill expenses
- Achieved through minimized energy consumption during drying or incineration

EFFICIENT THICKENING: 90% LESS WASTE SLUDGE

GEA biosolids Decanters excel in sewage sludge thickening. A key element is the GEA varipond® control and regulation system.

Video

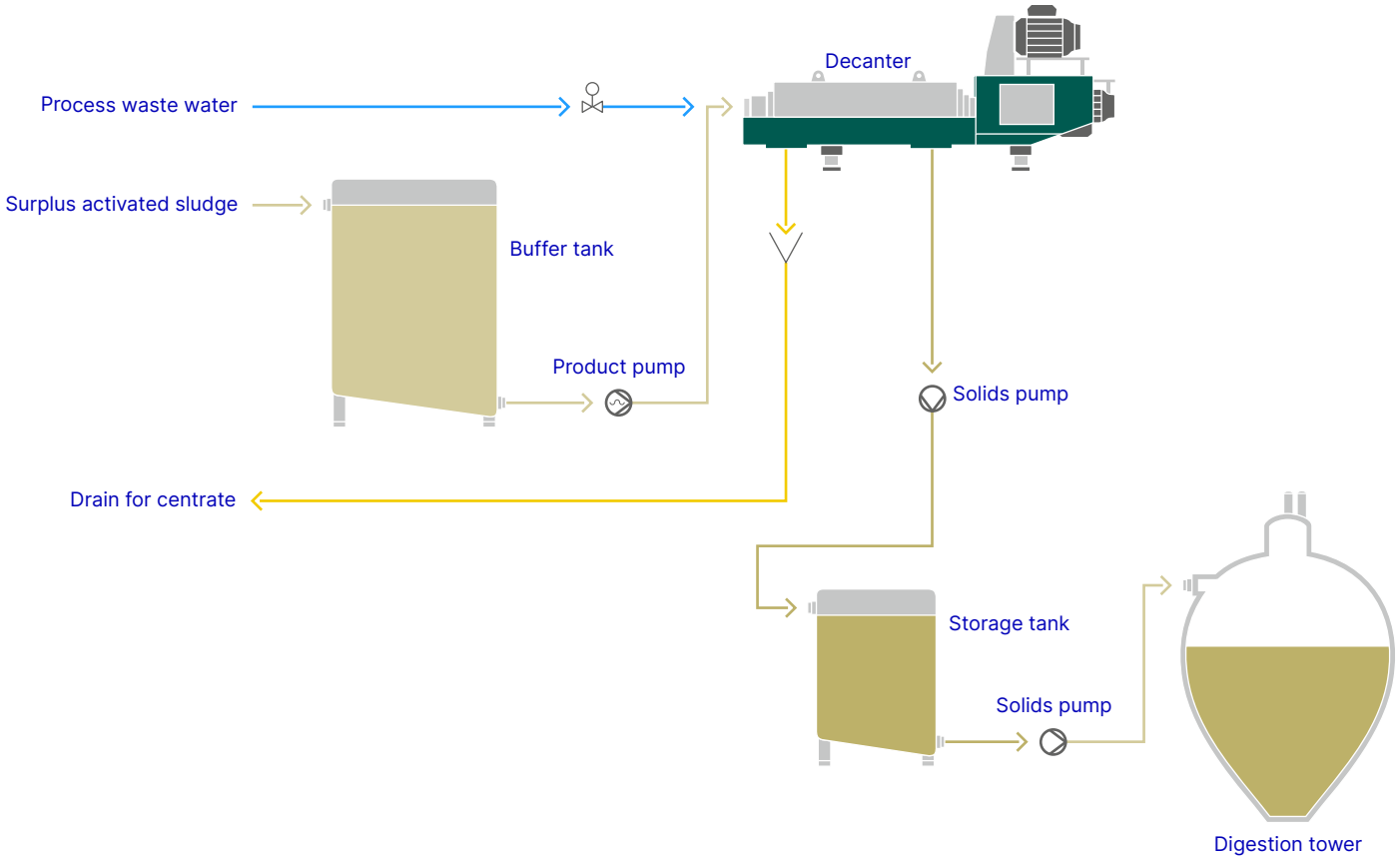


Legal obligations for eliminating phosphorus and nitrogen as well as process changes in wastewater treatment make it necessary to thicken the sewage sludge using a machine. GEA biosolids Decanters generally reduce the volume of sewage sludge by up to 90%. The patented GEA varipond® control and regulation system makes a key contribution here. It ensures consistent dry matter values in the output, even with fluctuating concentrations in the feed.

GEA varipond® won‘t leave you standing in the rain

Sewage treatment plant operators are familiar with situations like these: a sudden downpour and the sewer system can barely contain the water volumes, which are overloaded with high quantities of solids such as swollen sand and other residue. When this happens, a fast-response system like GEA varipond® is required. The name stands for ”variable pond depth“ while the machine is running. Previously, varying feed conditions meant that decanters had to be shut down and rebuilt in order to achieve a consistent concentration. Today, varipond® easily and securely enables fully automated adjustment of the centrifuge to match changing feed conditions during operation. The dry matter content of the sludge is measured online. This achieves a level of accuracy of ± 0.3% under operating conditions. Unsupervised operation at night or weekends is therefore also possible. The constant concentration facilitates the optimum configuration and efficient operation of the digestion tower at the wastewater treatment plant. Better digestion of the sludge is ensured and higher gas yields can be achieved thanks to the increasing quality.

Sludge thickening



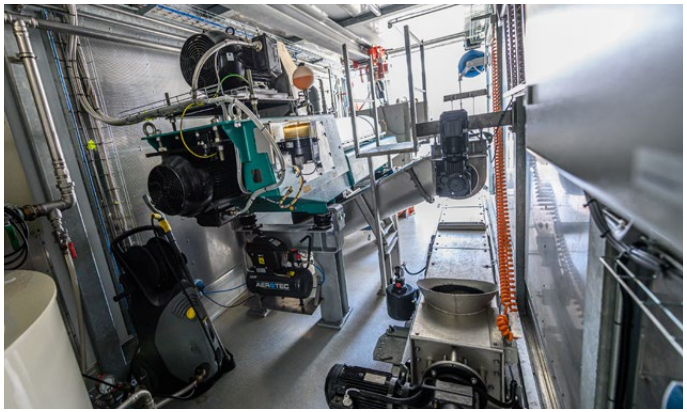
The benefits at a glance:

- 30% less sludge
- Fully automated feed control
- Reduced transport and waste management costs

KEEP ON MOVING – WITH MOBILE DECANTER SYSTEMS FROM GEA

Video

With their modular, plug-and-play design, mobile decanter systems from GEA are designed for flexible process integration as truck trailers or standardized sea containers.



The decanter units are modular solutions that can be integrated quickly and easily on our customers' premises with ongoing operation of existing sludge treatment systems. This makes them suitable for in-depth tests on a large scale or when rapid help or flexible use is required.

Easy process integration for maximum flexibility and cost effectiveness
For efficient global logistics, the individually adaptable mobile systems have all the necessary components and are fully piped and ready for immediate use. This means that they can handle temporary peak loads during operation when processing wastewater. You can also test the potential for increased performance and savings using GEA decanter technology when treating wastewater, manure or fermentation residue under real-life conditions before you invest in the existing system technology.

Everything you need
All components are installed on a frame: polymer station, control cabinet, feed pump, solids conveyor and water supply including flushing device.

YOUR DECANTER CAN DO MORE. WITH GEA INTELLICANT®.

GEA Intellicant® ushers in a new era of efficiency in your sludge treatment process by monitoring, automating and optimizing your decanter. Specifically designed as an upgrade kit for existing GEA systems in wastewater treatment plants, this solution ensures efficiency and drastically reduced disposal costs. Unleash the full potential of your decanter with GEA Intellicant®.

GEA Intellicant® comprises easy-to-install, low-maintenance sensors, AI-supported software and a performance reporting solution. Because we care about long-term optimization, we designed GEA Intellicant® as a subscription service to enable continuous support.

GEA Intellicant® provides you with a simple overview of the real-time status of your sludge dewatering. It makes a seamless process out of obtaining and comparing data from one or more wastewater treatment plants, saving you valuable time and resources.

For clear cost transparency
With GEA Intellicant®, you can always keep track of your expenses. Our system automates sludge dewatering and provides detailed information about every cost implication.

Optimizes the performance of your decanter
The efficiency of your wastewater treatment plant is at the heart of GEA Intellicant®. Gain deep insights into how your units are running and enjoy increased performance and significant cost reductions as a result.

Minimizes manual tasks
GEA Intellicant® offers a future-proof solution, overcoming the global shortage of skilled workers. By automating routine tasks and providing user-friendly monitoring tools, our GEA Intellicant® solution helps you with its efficient streamlining.

Explore further

GEA BIOSOLIDS DECANTER FOR MUNICIPALITIES

First-class separation performance for dewatering and thickening sewage sludge, treating drinking water and recycling valuable materials – with up to 50% less energy consumption.

SOLVING SEWAGE SLUDGE ISSUES REQUIRES MAXIMUM CONCENTRATION

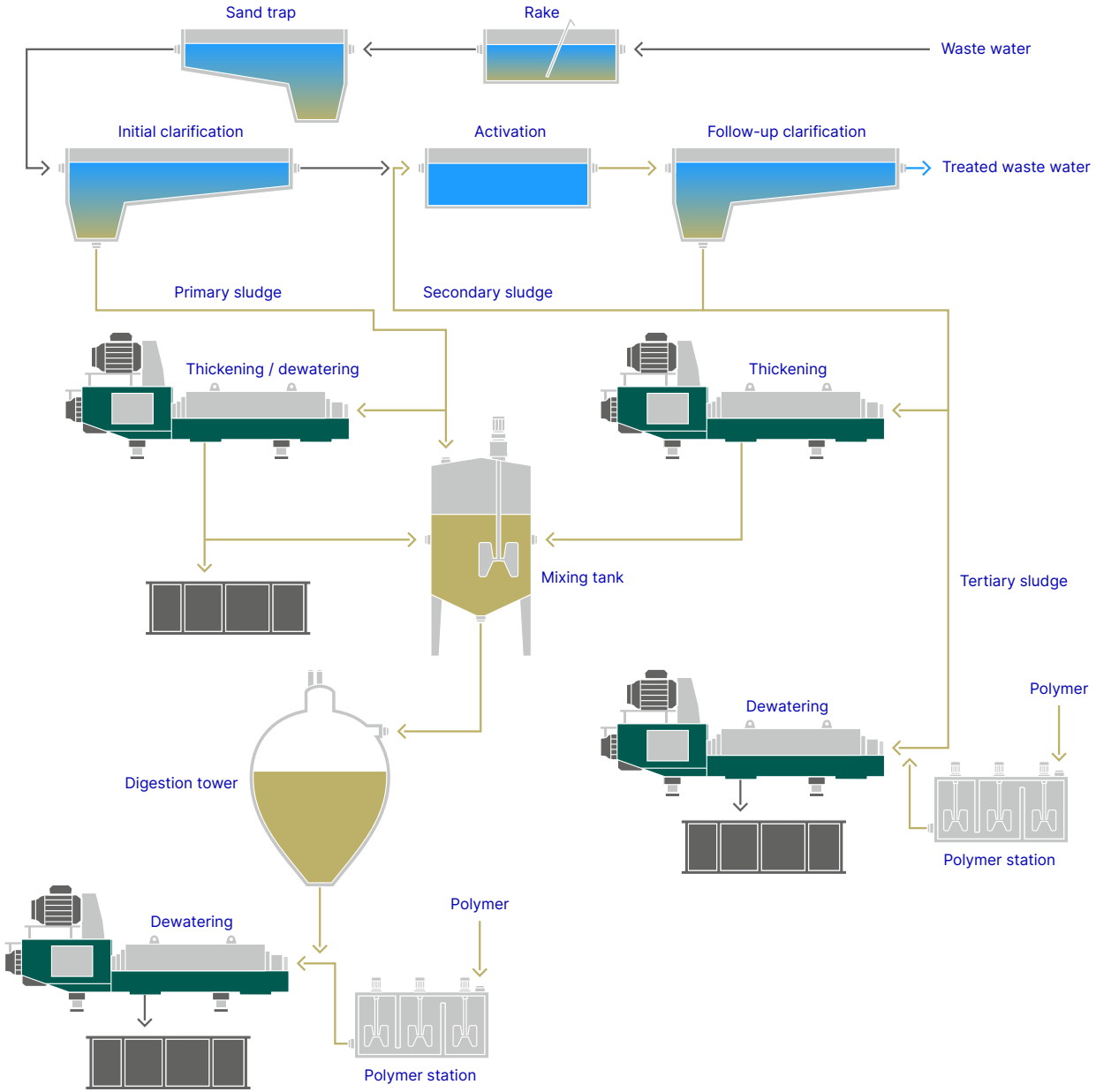
Municipalities across the world have to cope with an ever-increasing volume of sludge. Economical and environmentally friendly disposal depends on the concentration of solids.

International water protection policies prescribe sustainable wastewater treatment in particular. For municipalities, the solution lies in dewatering sewage sludge with as little residue as possible. The higher the solids concentration of the sewage sludge, the more economical and ecological the subsequent processes will be through to transport and disposal.

Pioneering GEA technology for wastewater treatment plants

GEA supports wastewater treatment plants by thickening and dewatering sewage sludge with high-performance decanters which set standards in the industry. The scroll centrifuges can also be fitted with peripheral devices, pumps, conveyors, polymer stations and control units. A comparative test has shown that our technology is pioneering in terms of dry substances, separating precision and the low consumption of polymer.

Wastewater treatment plant



The benefits at a glance:

- High throughput capacities with maximum separation precision
- Permanently low disposal costs
- Minimal consumption of polymer

GEA SLUDGE DECANTER FOR INDUSTRIES

Specifically for the treatment of process and cleaning wastewater as well as sludge dewatering in industries. For production processes with optimized costs and maximum availability, quality and efficiency.

CLEAN DRINKING WATER: NATURAL BUT PRECIOUS

You just need to turn on the tap and out comes fresh water. However, this is not the case for around 2 billion people across the world. According to the UN World Water Development Report 2023, this is how many people do not have regular access to clean drinking water.

Video

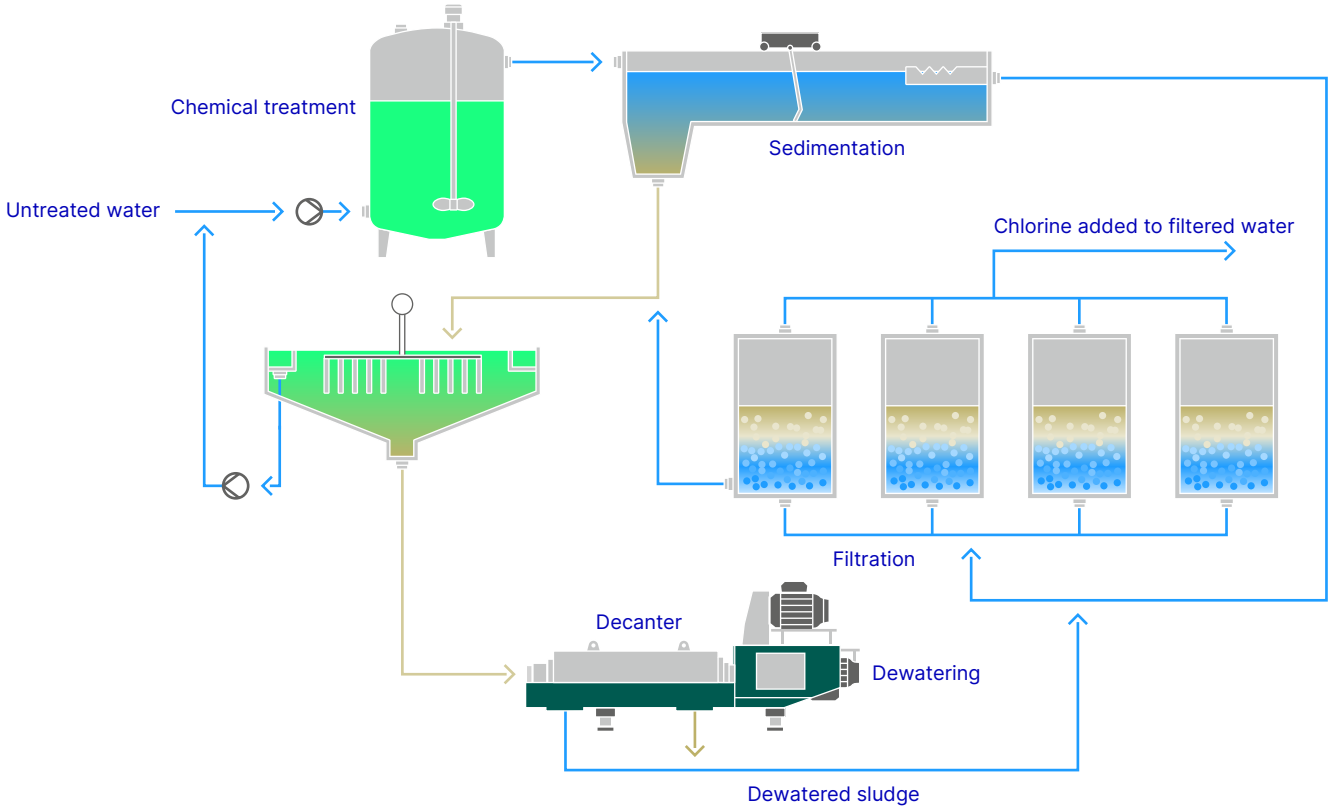
About 70% of the world's available fresh water is used by agriculture. More than 20% is taken by industry and only about 10% of water withdrawal is down to private households, cities and communities. The effective treatment of surface and ground water will therefore become increasingly important in future with the growing population and our rising impact on the environment.

The most common impurities caused by both nature and humans include humus and composted plant parts, as well as minerals, organic impurities, chemical residue, bacteria and viruses.

Drinking water treatment with specialized clarifying decanters

GEA sludge Decanters which have been specially developed for optimum clarification performance and solids dewatering are used for sludge dewatering in drinking water treatment plants. This is achieved through the high bowl speed and scroll torque in conjunction with regulation of the differential speed. This works in a similar way to the solids load. The closed construction and installation prevent aerosols from leaking out and thereby protects people and nature.

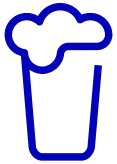
Treatment of surface water



The benefits at a glance:

- Low polymer consumption
- Small machine footprint
- Few operator resources required
- High safety due to closed process

THE MODERN ART OF BREWING – BENEFITTING PEOPLE AND NATURE



Innovative GEA technology which combines ecology and economy. Process-integrated environmental protection with decanters and separators in the international brewing industry.

Beer usually consists of just barley, hops, yeast and clean water. Nevertheless, its production is a complex biochemical process. In order to achieve top quality while safeguarding the environment, breweries use high-performance centrifugal separating technology systems from GEA.

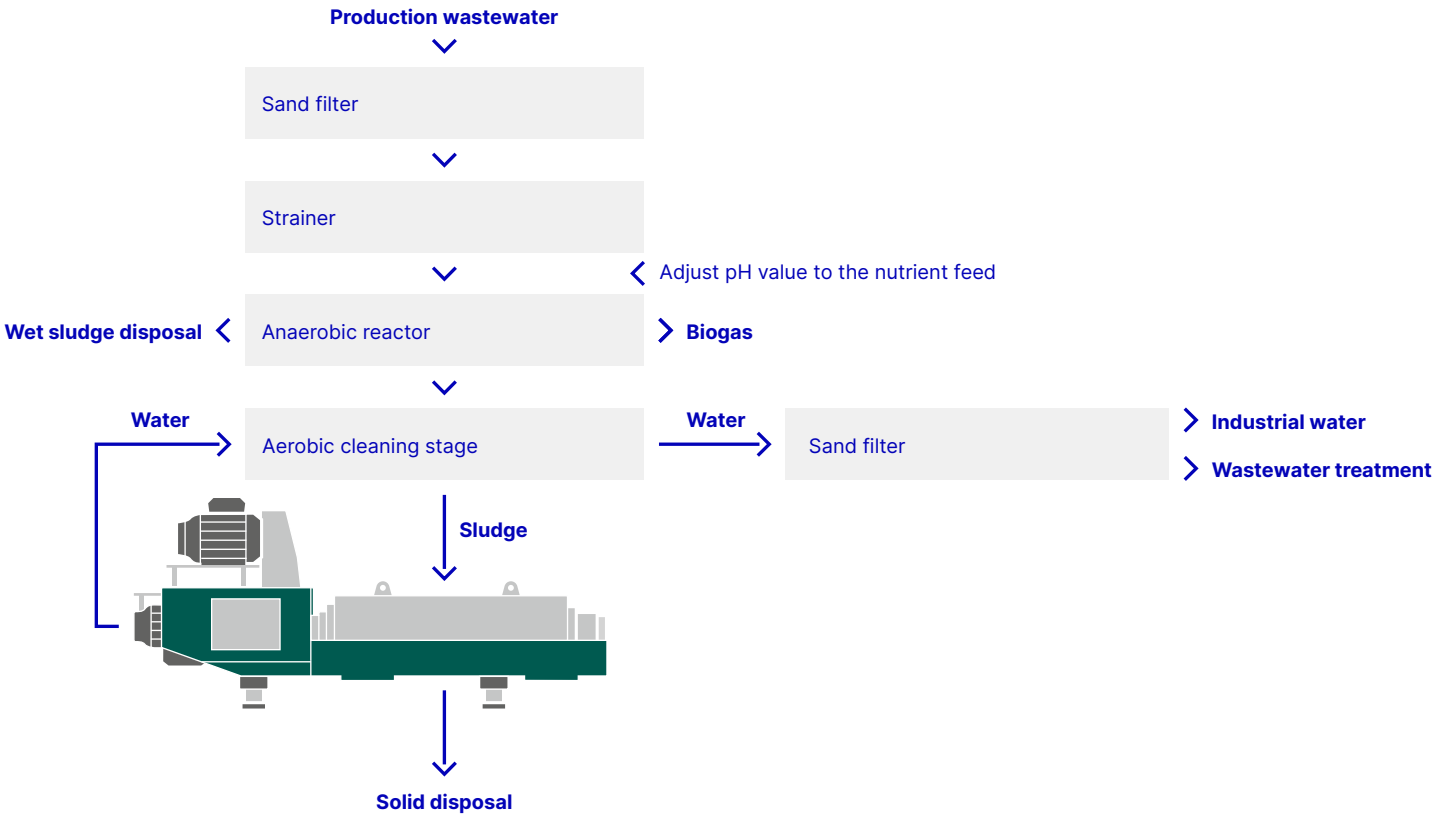
Decanters and separators in breweries across the world have proven themselves time and again as future-proof solutions for wastewater treatment. They work continuously, clarifying and separating with extreme efficiency. They also require minimal energy, space and personnel and can be implemented with low investment costs.

Not all wastewater is the same
Wastewater in breweries essentially consists of two main streams. The first is residue from production such as yeast, fermentable sugar or diatomaceous earth. It can be fed back into the production process as a reusable material by separating solid and liquid substances. This reduces operating costs and increases yields.

Cleaning away cleaning agents
The second main stream comes from cleaning processes in the fermentation and storage tanks as well as barrel and bottle rinsing. When processing this wastewater, decanters and separators make a key contribution to protecting the environment and reducing disposal costs.

Profitable to the very end
The use of a decanter is also profitable after biological treatment of wastewater in the operating wastewater treatment plant. The effect of decanters on the solids particles is four thousand times faster than sedimentation. The result is sludge which can be disposed of more easily and cost effectively with a reduced volume.

Water treatment in breweries



The benefits at a glance:

- Continuous and efficient operation
- Low energy consumption
- Small machine footprint
- Reduced operating costs and optimized yield
- Reduced disposal costs

ENVIRONMENTAL PROTECTION IN DAIRY BUSINESSES – A COST-EFFECTIVE STRATEGY

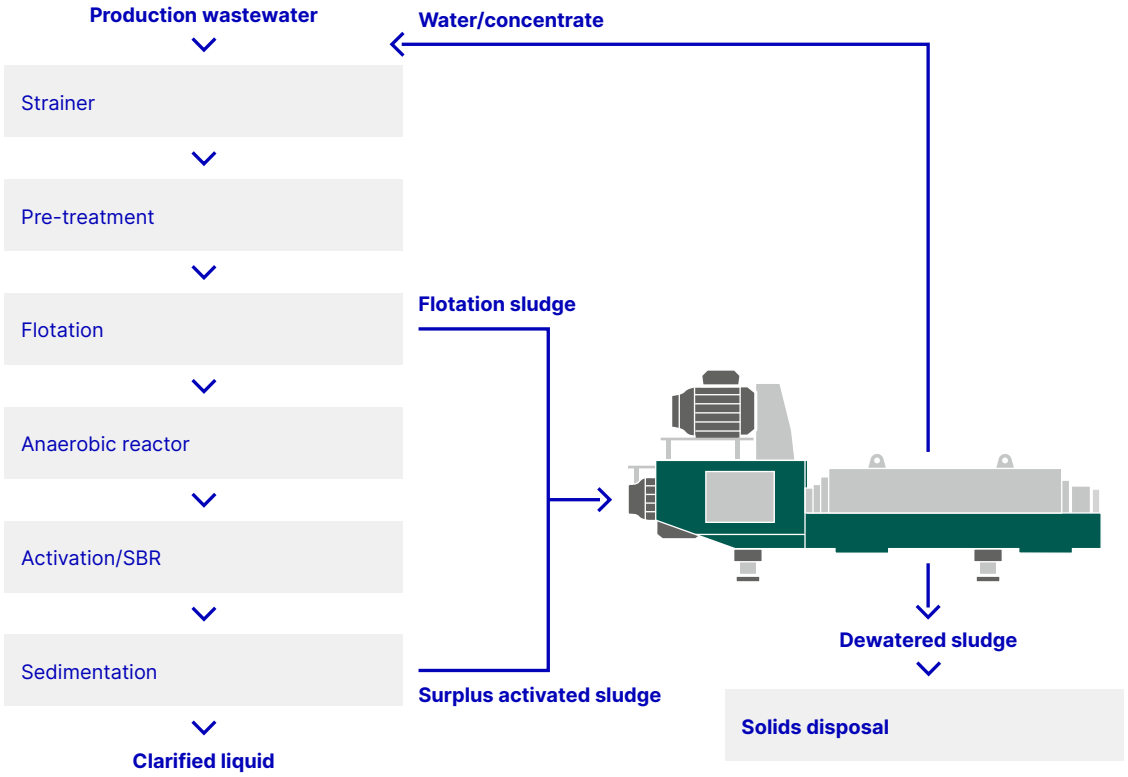
Wastewater costs are reduced by lowering wastewater quantities and freight. A key factor which gives dairy businesses a competitive edge.

The average amount of wastewater used in dairies is around 1-3 liters per kilogram of milk. This results in significant wastewater disposal costs. Centrifugal separating technology from GEA opens up huge savings potential here by minimizing the use of fresh water and reducing the volume of residual sludge.

With milk preparation and the manufacture of milk products, hygiene is the top priority. This requires a lot of water for cleaning. Furthermore, there are significant quantities of wastewater with volatile milk constituents, fats and proteins. This is particularly the case during evaporation and spray drying. There are therefore two main streams of process wastewater: one in contact with the milk and one which has no direct contact with the product. Our decanters and separators offer the perfect solutions here, so you can save internal costs while increasing efficiency.

It's all in the milk ...
... but also in the way the subsequent products are processed. Recycling valuable constituents in the production process and reducing waste substances that can no longer be reused increase productivity, reduce operating costs and protect the environment. Calculations show that so-called direct dischargers, that is companies with their own wastewater treatment, run up to two-thirds more economically than the users of municipal wastewater treatment plants. Following anaerobic/aerobic biological cleaning of dairy wastewater, our decanter technology offers a globally proven process for thickening and dewatering residual sludge. This reduces disposal costs, increases your competitive edge and safeguards the environment.

Water treatment in dairies



The benefits at a glance:

- High throughput capacity with maximum separation accuracy
- Closed system, no aerosol emissions
- Small footprint
- Stainless steel materials provide corrosion protection for product contact components

TURNING OLD INTO NEW – PET RECYCLING

The number of PET containers is increasing across the world. The recycling trend is also increasing the amount of wash water and cleaning lye in the recycling process.

Read more

Global plastic production is on a steep incline, and with it plastic waste. Around 12 million tons of plastic end up in the world's oceans, including countless bottles made from polyethylene terephthalate (PET). Sustainable use of plastic and optimizing the existing recycling process are therefore key tasks for businesses and governments.

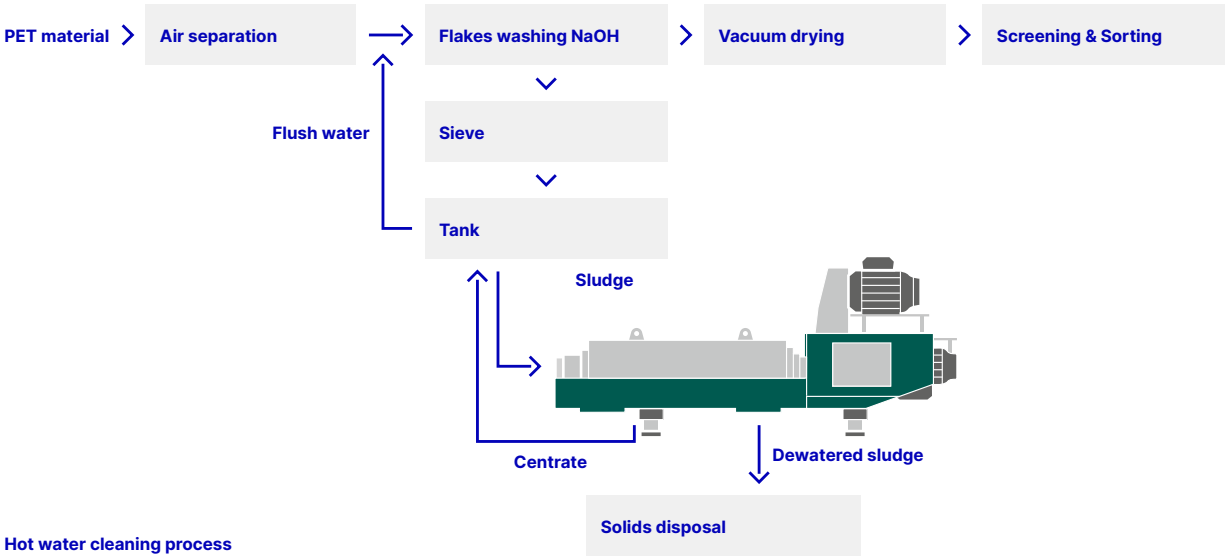
GEA sludge Decanter pro: engineering for a better world

To support increased plastic recycling, GEA sludge Decanters pro provide an energy-efficient solution for removing contaminants from the wash and lye water in PET recycling plants. The centrifuges can accommodate both hot and cold water cleaning processes, which are based on decades of leading GEA expertise in wastewater treatment. The "old" PET containers are first shredded into pieces (or flakes) measuring two to three millimeters. These are then used as the basis for bottle-to-bottle recycling or to make "new" products such as sports clothing, office material and trunk lining. After this step, contaminants such as sand, solids, labels and glue residue are removed using hot and cold wash and lye water in two preparation processes. To avoid a constant exchange of the pollutant liquids, they are cleaned at very high speeds by GEA sludge Decanters pro and reintroduced into the process cycle. This increases system availability, reduces production costs and conserves resources and the environment. The operator also benefits from highly corrosion-resistant stainless steel materials for all components that are in contact with the product, low space requirements, a closed system without aerosol emissions and continuous operation.

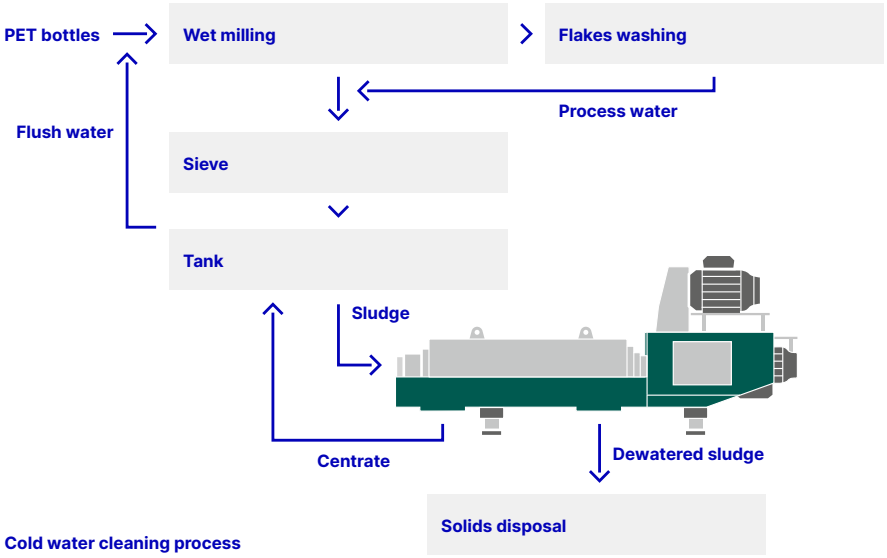
Extremely flexible application

The high level of standardization and modular, compact construction of the GEA sludge Decanters pro facilitate easy plug-and-play integration in established processes with little need for adaptations. This enables a fast delivery time. GEA offers the pro line in nine machine sizes, as well as a skid, mobile and retrofit solution. These are benefits enjoyed by many users in PET recycling plants around the world.

Resource-saving treatment of wash and lye water in PET recycling



Hot water cleaning process



Cold water cleaning process

The benefits at a glance:

- High degree of operating reliability, availability and low wear
- Easy to use and plug and play into existing processes
- Small footprint
- Reduction of production costs
- Stainless steel materials provide corrosion protection for product contact components

PAINT SMART!

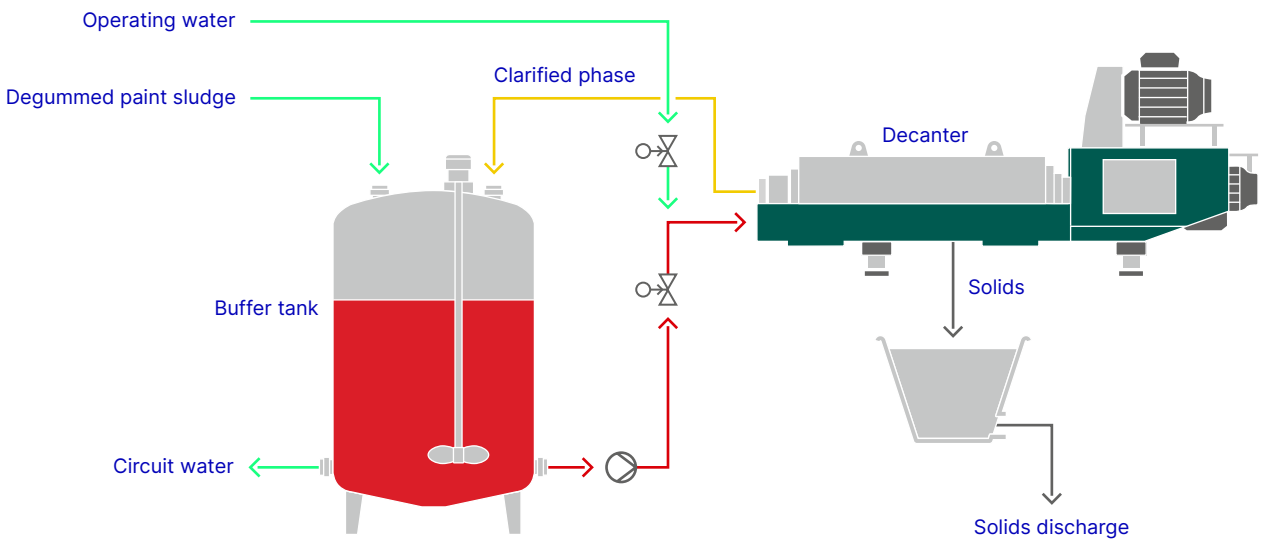
Paints bring colors to life – and into the wastewater. This is not a problem with GEA decanters, as paint residue is cleanly separated from the water, which can then be reused in the closed loop.

Paints are used in a number of different industries, e.g. for surface treatment and corrosion protection. There is generally no wastewater during production, as the systems are watertight. The situation is different for peripheral processes, for example cleaning packaging material, mixing tanks and dyestuff preparation tanks. The resulting paint sludge contains residue of dispersed acrylate and vinyl resins, dissolved cellulose derivatives with residues of pigments and filling agents, solvents, traces of acids or lyes as well as residues of preserving agents. This sludge has a water content of 80 to 95% and can be efficiently prepared. This is where GEA decanters come in: their high performance allows removal costs for paint sludge to be significantly reduced.

Optimize the cost of painting processes in an environmentally friendly way with decanters

The resulting sludge is collected in a storage tank and pumped to the decanters. The discharge of solids is removed or reused, and the clarified phase is fed back into the process. This reduces the costs of wastewater removal and freshwater consumption. This is also an advantage in areas where environmentally water-based paints are increasingly being used, such as the aerospace and automotive industries. The large clarification area in the decanter resulting from the high speed ensures excellent throughout capacities and improved separation while maintaining the same high dry matter content.

Water treatment in paint shops



The benefits at a glance:

- Continuous and efficient operation
- Low energy consumption
- Small machine footprint
- Reduced disposal costs

PAPER CAN WAIT – THE ENVIRONMENT CAN'T

Prepare wastewater sustainably in the paper industry using centrifugal separating technology, and benefit the environment and your pocket.

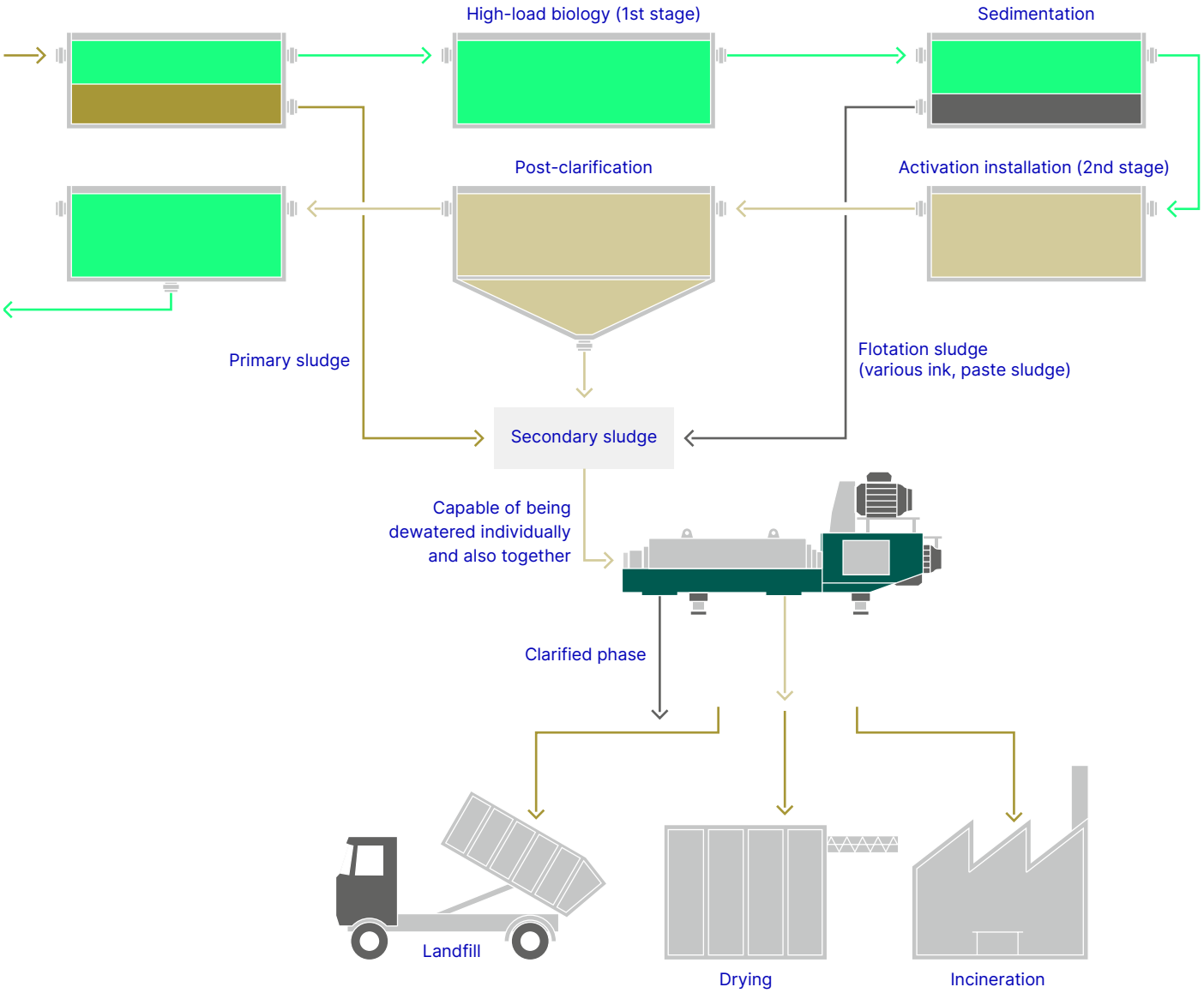
Thanks to its physical properties, water is essential for paper production, both in the preparation of natural raw materials such as timber, pulp and plant fibers, as well as in the recycling of wastepaper. The production of paper is one of the most water-intensive industrial processes there is. Depending on the desired paper quality, chemical substances are mixed in, e.g. whitening agent, colors or dust repellants, the residue of which contaminates the process wastewater. This applies in particular to "de-inking", the recycling of printed wastepaper. The resulting high wastewater quantities need to be prepared in a cost-saving and environmentally friendly way. Decanters from GEA can do this with maximum efficiency and reliability.

Closed material and resource cycles

Wastewater preparation with decanters also has numerous benefits for operators, which are clear to see. The centrifugal separating technology makes an important contribution to the separation of valuable, reusable substances, disposable solids and clear water, which can be fed back into the production cycle. This significantly reduces the use of fresh water, as well as the storage and disposal costs of the non-recyclable material, thanks to the high dry matter content that can be achieved.

A further benefit in terms of cost efficiency is that, while the used, valuable chemical substances are lost during processes without decanters, they can largely be retained when preparing with decanters, and used again in the production process. It's a win-win situation for the paper industry and the environment as you can see from the graphic opposite!

Water treatment in paper production



The benefits at a glance:

- Efficient and reliable operation
- Low energy consumption
- Small machine footprint
- Closed system
- Reduced disposal costs

GEA MANURE DECANTER FOR AGRICULTURE

Specific solutions for the efficient, economical treatment of slurry and fermentation residue meets the strictest requirements for ground water and environmental protection and minimizes disposal, storage and transport costs.

NATURE KNOWS NO WASTE

Twofold benefit from decanters: energy from biogas and high-quality fertilizer.

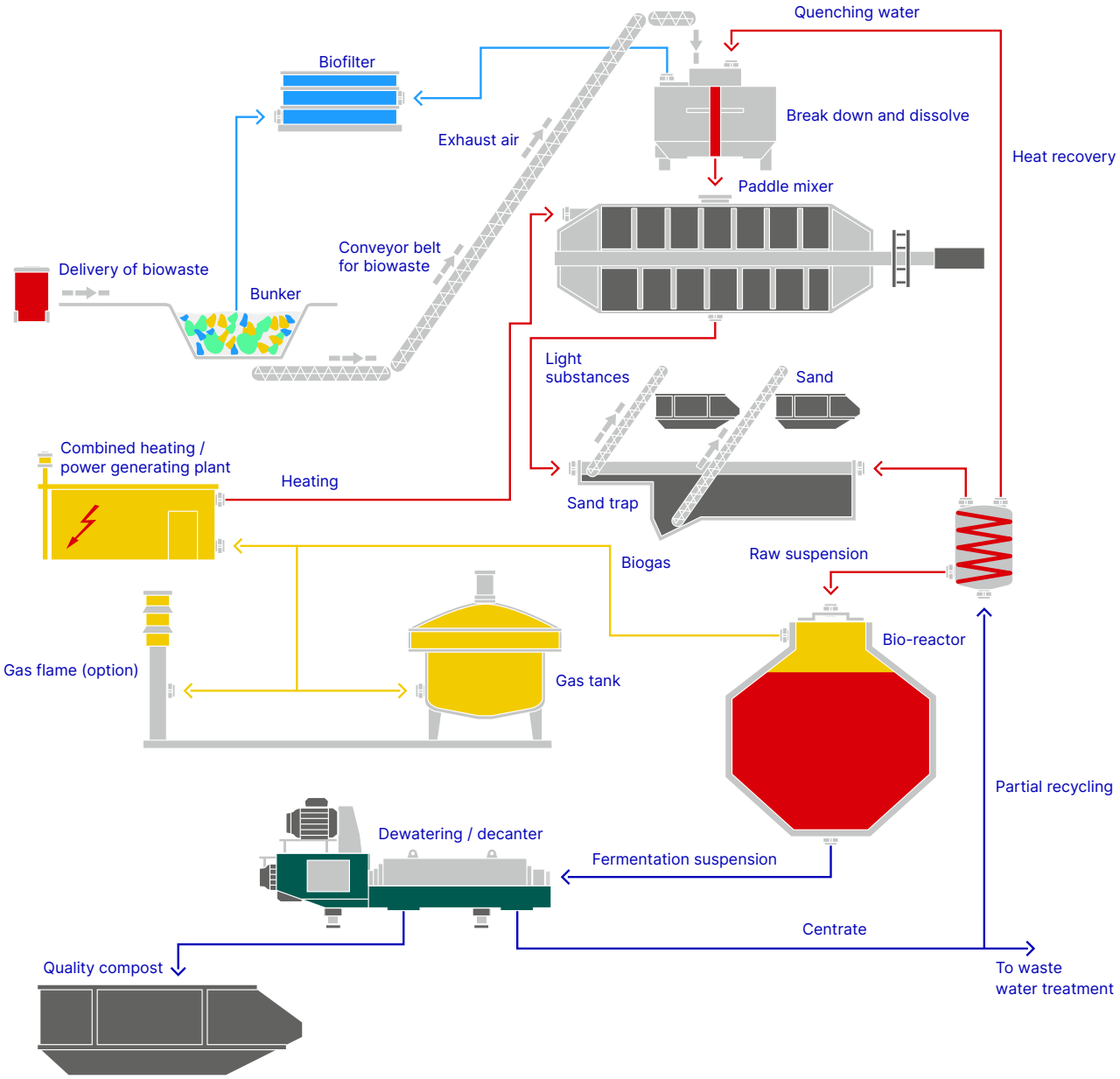
Intelligent recycling instead of just disposing of waste forms the current basis for modern environmental protection and for business activity too. Nature is a good role model here, as it knows no waste.

Anaerobic fermentation
The mid-90s saw the establishment of the innovative technology of anaerobic organic waste fermentation, which has proven itself ever since in terms of both environmental protection and conservation of resources. The energy-efficiency and recycling-related benefits of this process are clear for the user.

Wet fermentation
After carefully cleaning all foreign material such as plastic, metal and textiles, the collected organic waste is crushed, saturated with water and sanitized. After the sand is separated and a further defibration process is performed, this mixture of organic waste and water can ferment anaerobically in the digestion tower. A valuable side effect of fermentation is the emergence of biogas, which can be converted into electricity after cleaning. This is an environmentally friendly and pioneering way to generate energy and can play a key role in sustainable energy policy.

Decanters produce high-quality compost
During the dewatering of the digested biomass from the fermenter, GEA decanters separate solids particles that can be centrifuged and dewater them into a fluid, dry consistency. The solids that run off from the decanter with their organic components form a high-quality, hygienically safe fertilizer. The centrifuged material flows back into the fermentation process or is sent for further treatment.

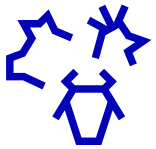
Example of a wet fermentation installation



The benefits of centrifugal separating technology from GEA at a glance:

- High separation performance and excellent centrifuged material quality
- High dry substance value in compostable solids
- Recirculation of the centrifuged material for mashing
- Reduced logistics and output costs
- Closed material flows

SPECIFIC SEPARATION OF ANIMAL NUTRIENTS – STATIONARY OR MOBILE



Process slurry with GEA manure Decanters: recover nutrients and feed them back into an efficient cycle.

In modern agriculture, slurry from livestock farming is a valuable natural fertilizer, provided that it is used without high nitrate and phosphate contamination of the ground and surface water. Intensive livestock farming is at odds with a lack of slurry audit areas here. To tackle this problem, the experts at GEA have developed a treatment concept which pays off for agricultural companies. The slurry and associated excess nutrients are prepared with decanters in such a way that the subsequent products can be used efficiently and economically.

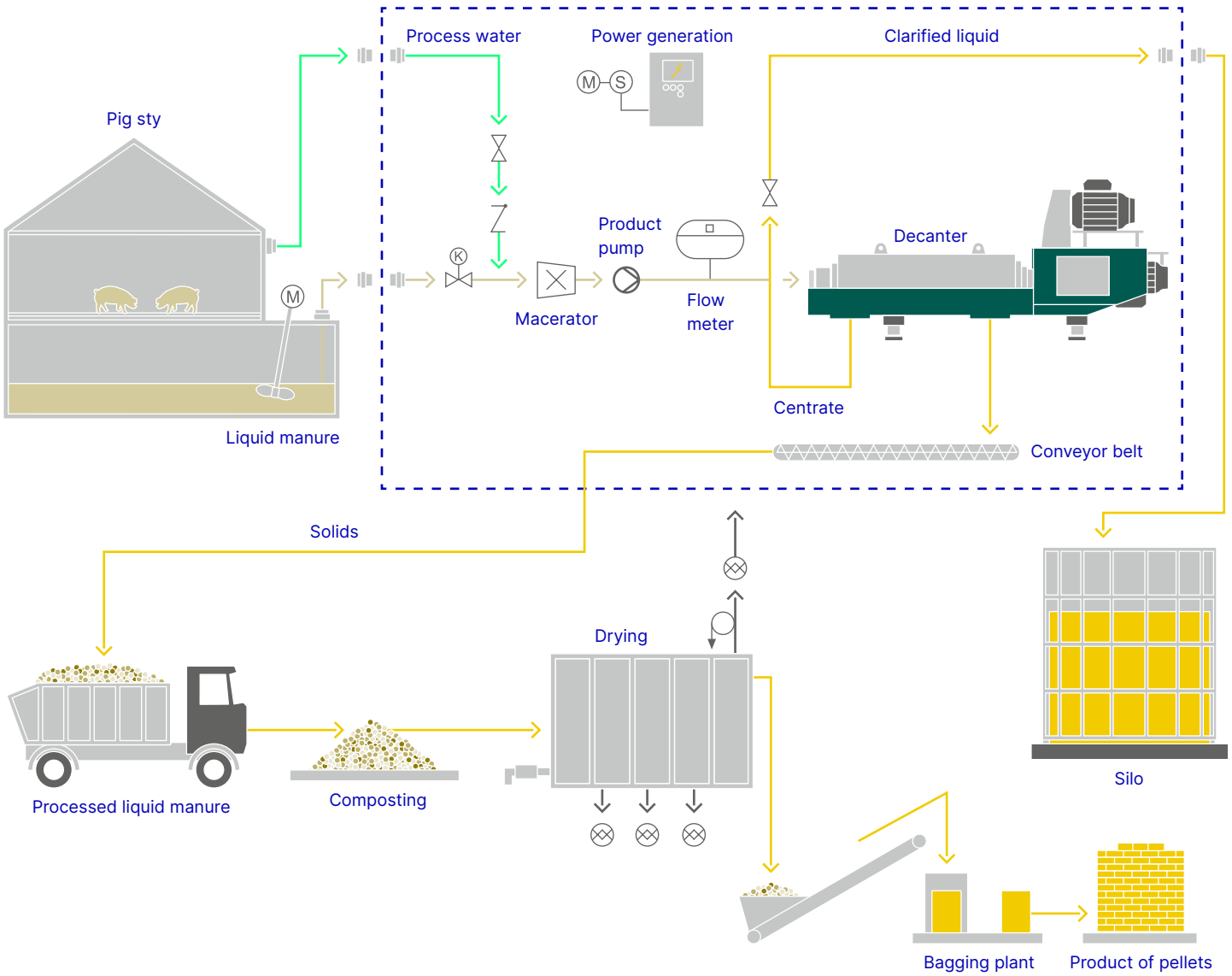
Efficiently reduce phosphorus and nitrogen content

Environmentally friendly use of natural fertilizer is only possible after its phosphate and nitrogen content is reduced. The mechanical separation technology of the GEA manure Decanter takes on an important task here. The phosphate content is reduced by 70 – 90% and the nitrogen content by 30 – 35%. Solids particles that can be centrifuged are dewatered to a fluid consistency and can be further processed to form sanitized fertilizer.

Moving from farm to farm

GEA offers mobile decanter systems with a plug-and-play design which can be quickly transported from farm to farm and are ready to use almost instantly. All the necessary components such as pumps, conveyor technology and not least a power supply from a diesel generator make the mobile decanters completely self-sufficient.

Processing of slurry



The benefits at a glance:

- Highest separation efficiency of N and $P2O_5$
- No need for chemicals
- No blockages
- Very compact design
- Easy installation and operation
- Automatic adaptation of fluctuating feed streams