



we clean water

VTA Plant Engineering

Your partner when it comes to overall solutions
in the field of wastewater treatment!



VTA PLANT ENGINEERING
VIDEO

VTA Water Technology provides tailor-made engineering solutions for water treatment systems

Specializing in wastewater treatment, we offer comprehensive services from initial wastewater analysis to final system commissioning and staff training, all supervised by seasoned process engineers. Our expertise extends to component manufacturing, particularly in plastic solutions for dosing technology and storage tanks. Employing 3D visualizations and meticulous planning, we ensure optimal efficiency and reliability in wastewater processes. Our expansive production facilities facilitate the creation of top-quality components, expertly installed by our skilled assembly team. Following successful commissioning, we deliver ongoing after-sales support for sustained system performance.

OUR KEY ADVANTAGES INCLUDE:

- ▶ **Extensive experience** in wastewater treatment, facilitating thorough internal wastewater analyses
- ▶ **Complete solution provision as a plant construction manufacturer**, streamlining the process for customers
- ▶ High degree of in-house production, allowing for adaptable, **premium-quality solutions**
- ▶ Competent specialist staff equipped with the necessary expertise for professional task execution
- ▶ Precision project implementation with state-of-the-art machinery
- ▶ **24/7 service** commitment, ensuring swift responses and continuous assistance



we clean water

WATER FOR THE WORLD!

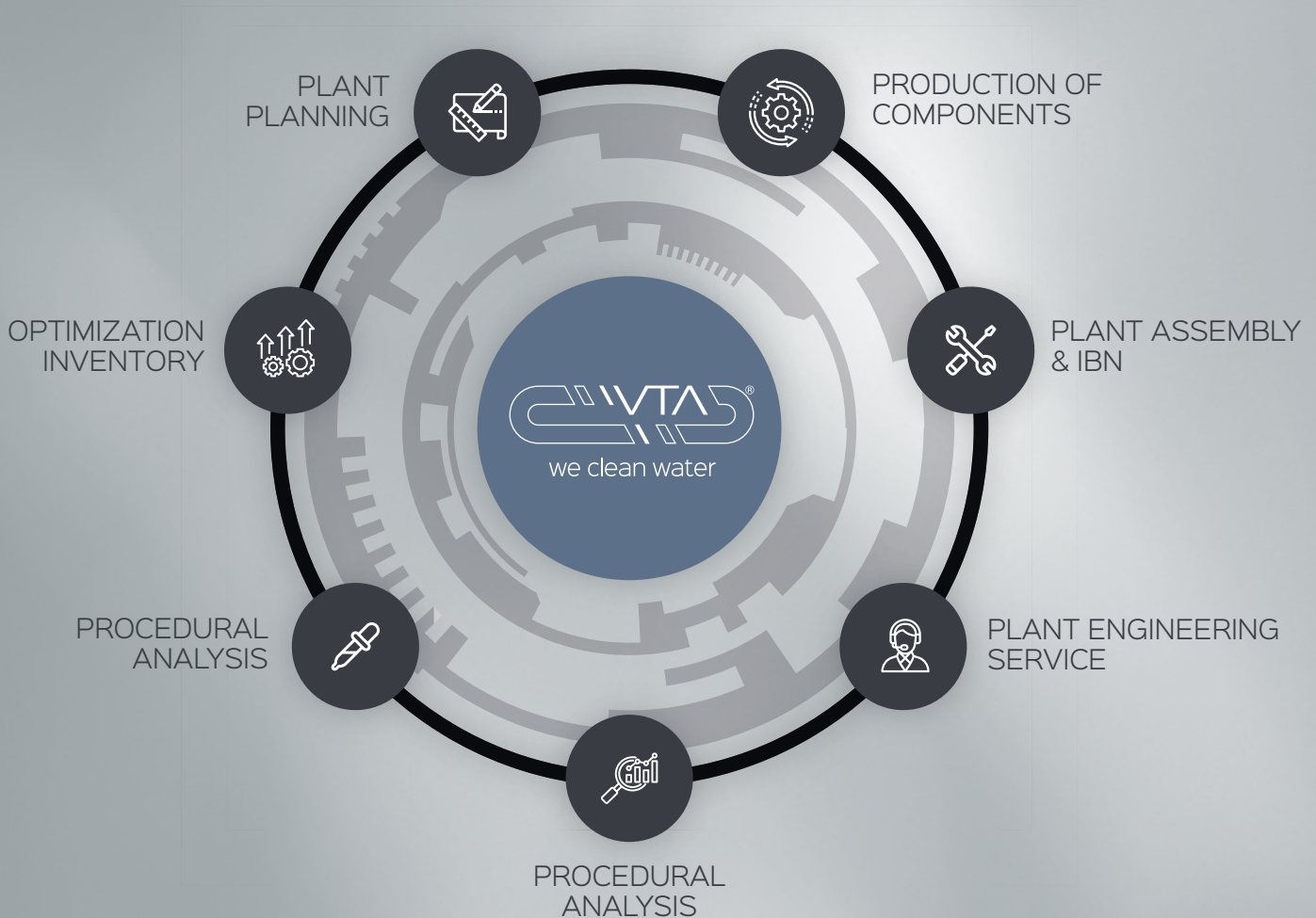
The VTA Group has established its presence in more than 65 nations, delivering impactful solutions

We specialize in pioneering VTA Liquid Engineering methodologies and cutting-edge technologies, redefining norms in wastewater and environmental sectors. Our solutions are not just highly efficient and cost-effective but also environmentally sustainable, mirroring the efficacy of natural cycles.



The VTA Consortium contributes to purifying the wastewater of over 250 million individuals daily, ensuring a cleaner future for generations to come!

Embracing the Circle of Sustainability!



We craft customized solutions for each client, perfectly suited to their specific needs.

VTA Plant Engineering

VTA Plant Engineering specializes in designing and deploying tailored solutions for managing wastewater, serving both municipal and industrial clients across various industries.



VTA PLANT
ENGINEERING

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VTA Dosing Technology

Eurodos, operating within the VTA Group, is committed to delivering specialized dosing solutions. Drawing upon extensive experience and employing advanced manufacturing techniques, we craft custom systems for precise and reliable product dosing.



VTA Dosing
Technology

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VTA Optimization & Service

To ensure seamless operation and optimal performance, consistent maintenance is indispensable. Our seasoned engineers specialize in fine-tuning and customizing wastewater treatment facilities to accommodate evolving process requirements.



VTA Service

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VTA Liquid Engineering Methods

Our expertise in liquid solutions enhances wastewater and water treatment processes. Crafted within our dedicated laboratories, our solutions continually evolve to meet the dynamic demands of wastewater technology and client needs. The seamless integration of our systems and tools not only enhances performance but also drives cost efficiencies.



VTA Liquid
Engineering
Methods

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VTA Plant Engineering

The provider of cost- and energy-efficient solutions for wastewater purification systems

From optimizing individual process steps to complete facility installations

Tailored Solutions for Your Wastewater Management Needs

Each industrial facility generates wastewater with unique compositions, demanding specialized treatment approaches. At VTA, we leverage our extensive expertise to design and execute customized wastewater treatment solutions tailored to your specific requirements.

PROCESSES UTILIZED:

- ▶ Sieving
- ▶ Neutralizing
- ▶ Decalcification
- ▶ Sedimentation
- ▶ Flotation
- ▶ Dewatering
- ▶ Precipitation / Splitting
- ▶ Biological Cleaning
- ▶ Flocculation

We offer a comprehensive array of services, encompassing the construction of pipelines and pumping stations, fabrication of tanks, installation of screening and flotation plants, establishment of dosing stations, construction of pipe reactors/flocculators, provision of sludge dewatering units, assembly of blower and aeration installations, implementation of exhaust air treatment solutions (such as scrubbers, biofilters, and activated carbon systems), as well as switch cabinet construction and PLC programming.



VTA Plastic Plant Engineering

Within this sector, our dedicated team of experts, equipped with ongoing training, primarily handles PP, PE, and PVC materials, transforming them into pipelines and containers, which are then assembled directly at the client's location. We possess the capability to design, produce, and **install tailored solutions** onsite for various purposes, **including wastewater management, handling highly corrosive substances** like acids and alkalis, and facilitating ultra-pure water applications.



At VTA, we provide customizable double-walled storage tanks, available in round or square designs, delivered either pre-made or assembled on-site to suit our customers' needs.

VTA Liner Solution

Tailored plastic linings crafted from PE or PP present VTA's economical answer for constructing and **refurbishing** concrete tanks and various containers.



Skilled and certified VTA personnel execute the **construction and installation**. Precision cutting of premium PE sheets on-site, secured firmly with screws, and expertly welded ensure top-notch results.



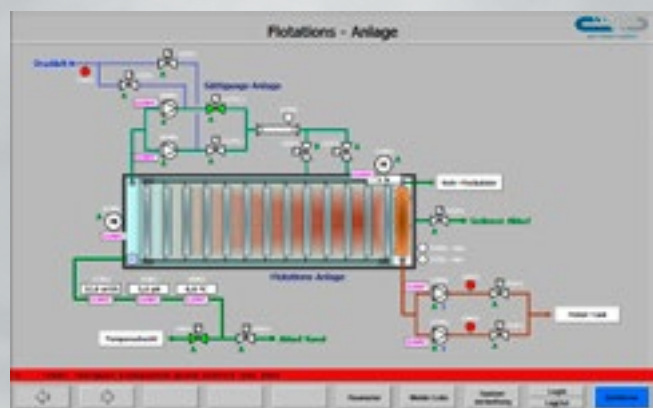
VTA's plastic liners elevate containers of diverse types to meet stringent standards.

VTA Switch Cabinet Construction and PLC Programming

The heart of any production or industrial facility lies in its switchgear. Each wastewater and cleaning operation presents unique requirements for the control system. To address these needs, we meticulously design and manufacture our own control cabinets and systems.

OUR EXPERTISE:

- ▶ Enclosure schematics using EPLAN P8
- ▶ Tailored assembly of control cabinets
- ▶ Proficient PLC programming via Siemens TIA portal
- ▶ Intuitive visualization and seamless data transmission



Benefit from switchgear meticulously crafted and engineered in-house by VTA.

We emphasize state-of-the-art system technology

We engineer and produce high-performance water treatment systems, incorporating the most up-to-date technologies, customizable to any size needed, and crafted to the most rigorous quality benchmarks

VTA GSD

PATENTED

UTILIZING ULTRASOUND FOR COUNTER-FLOW DISINTEGRATION FACILITIES

Unlocking organic compounds within sewage sludge for subsequent biological breakdown (anaerobic or aerobic).

- ▶ Maximizing sewage sludge treatment efficacy, ensuring a steady digestion process, and lowering costs
- ▶ Fully automated operation without pressurization
- ▶ Prevention of foaming within the digestion tower
- ▶ Swift amortization period



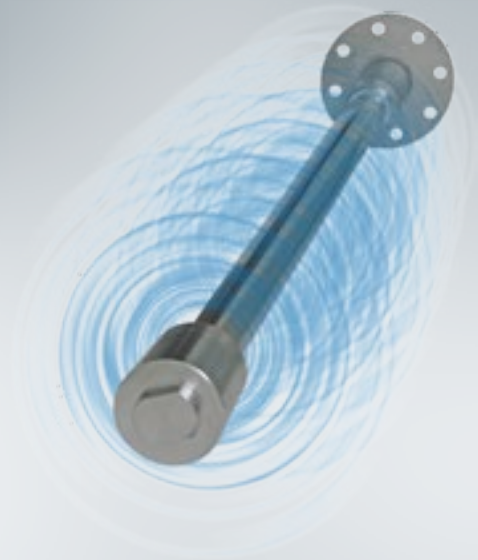
Biogas
up to
30 %
more

Sludge
up to
20 %
less

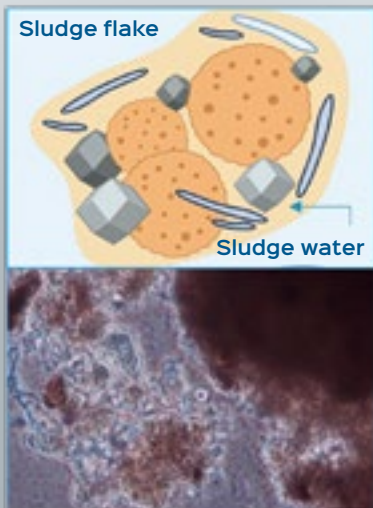
Polymer
up to
20 %
less

VTA Ultrasonic disintegration

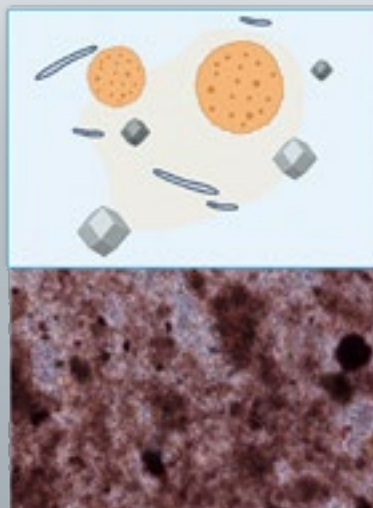
Counterflow disintegration works in two steps. Homogenisation and cell disruption.



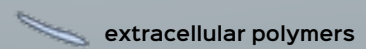
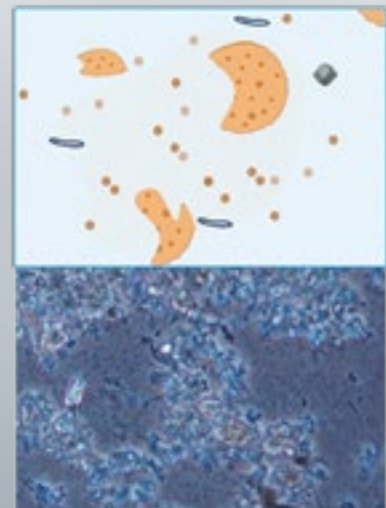
Start



Homogenisation



Cell disruption



A photograph of an industrial wastewater treatment facility. The scene features several large, cylindrical blue tanks with white structural supports, arranged in a row. A metal walkway with railings runs alongside the tanks. In the background, there are more industrial structures, including a tall silver chimney with orange bands. The sky is blue with some clouds. The overall lighting is bright, suggesting a clear day.

Industrial wastewater pre-treatment systems

Our commitment:

Delivering the most efficient wastewater treatment facility with minimized operational expenses and maximal energy conservation.

VTA Flotation Facilities

Employing the **dissolved air flotation** (DAF) method, we **address wastewater treatment**. This process entails suspending solids to the water's surface via micro-bubbles, subsequently discharging them as flotage via automated scrapers.

Our wastewater pre-treatment aims at **eliminating** floating matter, suspended solids, coarse substances, grease, oil, etc., primarily reducing COD levels.

Diverse **process technologies**, whether physical, chemical, or hybrids, necessitate tailored solutions.

Leveraging our profound expertise and **dedicated laboratory team**, we discern the optimal process, devise **comprehensive system blueprints**, and execute them seamlessly.



VTA Dosing Technology

Leveraging expertise and dedication, we craft sustainable and efficient dosing solutions with precision and care

VTA Mobidos

- ▶ Plug & Play
- ▶ Dosing unit with a storage tank capacity of up to 25m³
- ▶ Requires no structural adjustments
- ▶ Resistant to frost and suitable for year-round use
- ▶ Rapid installation at the customer's site
- ▶ Includes electrical interface for remote data transmission
- ▶ Customised financing options (purchase, rent, hire purchase, etc.)



VTA Underground Tank

OUR VTA UNDERGROUND TANK PROVIDES A SECURE OPTION FOR STORING AND DISPENSING LIQUID SUBSTANCES UNDERGROUND.

- ▶ Dispensing unit and measurement technology housed within the manhole shaft
- ▶ Capacity: 1-3 cubic meters
- ▶ Proximity to point of use for efficient storage; primarily utilized near pumping stations within municipal environments
- ▶ Effective odor management solution
- ▶ Utilizes VTA Liquid Engineering Methods for underground odor control
- ▶ Enhanced durability with double-walled construction



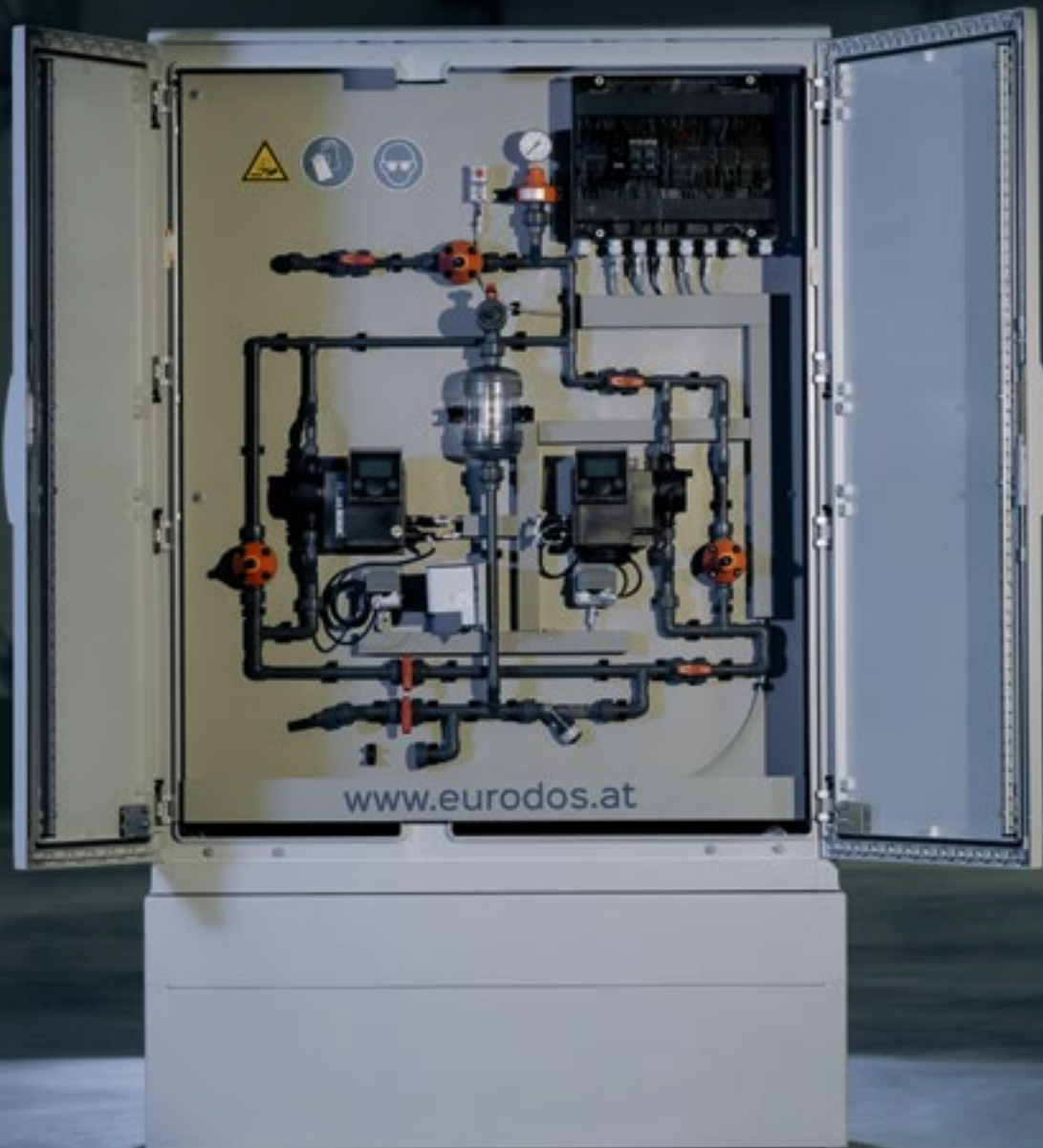
VTA Storage Tank

THE EURODOS STORAGE TANK ENHANCES THE SAFETY, PRECISION, AND CONVENIENCE OF HANDLING PRECIPITANTS AND OTHER CHEMICALS.

- ▶ Optional PLC control for cost-efficient dosing
- ▶ Planning adheres to relevant standards and regulations, with provision of an acceptance certificate
- ▶ Utilizes pumps sourced from top manufacturers
- ▶ Constructed with double-walled round tanks made of PE-100, capable of holding up to 50m³
- ▶ Tailored to meet your specific requirements
- ▶ Equipped with safety features and advanced measurement technology



VTA Dosing Station



- ▶ Eurodos precipitation stations: a holistic economic solution customized to your needs
- ▶ Precision-engineered to match your exact requirements
- ▶ Options include dirt traps, flushing connections, safety bypass, and diaphragm seals
- ▶ Optionally equipped with an electrical interface facilitating automated system control
- ▶ Applicable for both indoor and outdoor installations
- ▶ Comprised of pumps, valves, fittings, sensors, and installation materials sourced from top-tier manufacturers

VTA Polymer Dissolving Station



- ▶ Exceptional efficiency ensures exceptionally economical consumption
- ▶ Guaranteed optimum maturing time, whether with or without standalone PLC
- ▶ Tower system, pendulum system, 3-chamber system options available
- ▶ Compatible with both powder and liquid concentrate
- ▶ No need for drinking water
- ▶ Turnkey solutions available upon request
- ▶ On-site assembly and welding provided

VTA MicroTurbine

Harnessing sewage gas for sustainable energy: Introducing the MicroTurbine, VTA pioneers a new era in electricity and heat production at sewage treatment plants.

- ▶ Environmentally friendly and cost-effective
- ▶ Minimal upkeep required
- ▶ Remarkably low exhaust emissions
- ▶ Quiet operation with no vibrations
- ▶ Resilient against variations in gas quality
- ▶ Standout feature: maintenance-free air bearing technology eliminates the need for lubricants or coolants



Optimization and Service

Our primary focus lies in pioneering system technology

VTA Plant Check

In the operational dynamics of a wastewater treatment facility, even minor adjustments in cleaning or production protocols can trigger shifts in wastewater composition. Such alterations may inadvertently disrupt the plant's efficiency and escalate operational expenses.

AT VTA, OUR COMPREHENSIVE PLANT ASSESSMENT COMPRISES THE FOLLOWING:

- ▶ Thorough examination of the processes
- ▶ System functionality assessment
- ▶ Evaluation of hydraulic load
- ▶ Analysis of contaminant levels
- ▶ Scrutiny of real-time process metrics against predetermined benchmarks
- ▶ Detailed presentation of findings
- ▶ Identification of areas for optimization



VTA Service & Plant Optimization

Our dedicated service team not only conducts thorough inspections and maintenance on the systems we've constructed but also extends its expertise to existing systems not installed by VTA upon request. Thanks to the **integrated remote** maintenance modem, a standard feature in VTA systems, we can promptly and effectively perform **remote diagnostics** and address many service requests **in real-time**.

Whether it's a flotation system, filter system, or sludge dewatering unit, we optimize the performance of each component. Leveraging the extensive experience of our service specialists, we work towards **cost reduction** by **minimizing energy consumption**, chemical usage, and/or sludge production.



VTA Liquid Engineering Methods



The contemporary era witnesses a significant advancement in water technology.

VTA – Liquid Engineering

Nanocarbon®

Evolution in biophysics

Utilizing a unique structure with maximized active surface area, our technology efficiently removes anthropogenic trace substances, microplastic particles, and AOX. Even with minimal dosing quantities, our system achieves significant purification with minimal energy consumption.

Nanofloc®

Impurity control at the highest level

Through the breakdown into minute particles, our material undergoes a transformative shift in properties. VTA Nanofloc® incorporates metallic nanoparticles securely bound within a matrix, offering enhanced functionality for various applications.

Hydroprompt FORTE®

Biophysical germ binding

Our latest advancement provides dependable reduction of diverse bacterial loads in the secondary clarification of wastewater, ensuring enhanced treatment outcomes.

Calcoferrit®

Immediate odor elimination

Our straightforward, effective, and environmentally friendly odor control solution inhibits the formation of biogenic sulfuric acid, which can cause corrosion in sewer systems. By preventing such damage, our product helps reduce maintenance and repair expenses.

Biolizer®

Reduction of aeration energy

Enhancing performance in the activated sludge stage while promoting resource conservation, our solution features a carefully calibrated bubble pattern that optimizes the biological processes. VTA Biolizer® contributes to greater efficiency and sustainability.

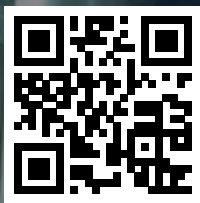
Biosolit®

Operational safety at wastewater treatment plants

Addressing multiple wastewater treatment challenges, VTA Biosolit® facilitates phosphate precipitation, sulfur binding, formation of compact flocs, and stabilization of sludge, offering a comprehensive solution for wastewater treatment needs.



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www.vta.cc



INTERESTED?
GET IN TOUCH WITH US!

We establish benchmarks!
Highly proficient, streamlined, and enduring.

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