

# ABIONIK News

**No. 11**



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series**



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Treatment Plant  
Stolzenau**

**Our vision:** Improving life  
with clean air and water

**Dear readers,**

the year is moving ahead swiftly – and things remain exciting at ABIONIK. In a dynamic market environment, reliability, innovation, and strategic growth are more important than ever. That's why we are particularly pleased to have made important decisions in recent months – both in terms of personnel and organizational development.



First, we are delighted to welcome Dr. Dirk Wittenberg, Senior Vice President of the Strategic Business Unit Water Treatment at the Wilo Group, to the management team of ABIONIK. With his many years of experience in water and environmental technology, as well as his strategic foresight, he will play a key role in shaping the future development of ABIONIK. This marks a further strengthening of the close collaboration within the Wilo Group – to the benefit of our customers, partners, and all ABIONIK brands.

Second, we are proud to announce the addition of KKS Apparatebau GmbH to the ABIONIK Group. Based in Querfurt, KKS enhances our portfolio with strong expertise in high-quality plant and apparatus engineering. With KKS on board, we continue to expand our technical capabilities and production capacity – enabling even more customized and efficient solutions for water and air purification.

These developments clearly show: we are growing – with focus, responsibility, and a firm commitment to quality and customer orientation. Together with our partners and customers, we will continue to deliver impactful environmental technology.

Thank you for your trust, and we hope you enjoy reading this newsletter. Ihnen eine informative Lektüre!

Warm regards,

**Daniel Crawford,**  
CEO ABIONIK GROUP



Company building of KKS-Apparate-Bau-GmbH,  
Photo above: Dr. Dirk Wittenberg

# Our vision:

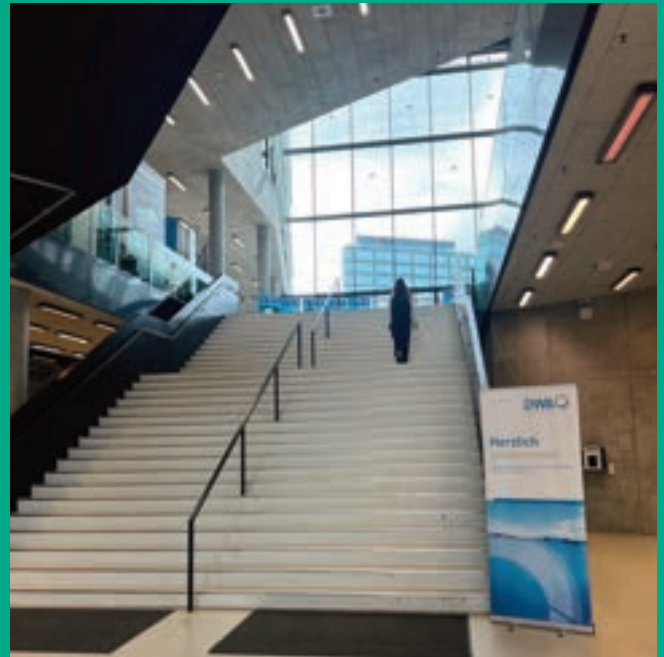
Improving life with clean air and water

## FSM Frankenberger/Steinhardt at the DWA Rainwater Days

On June 24 and 25, 2025, FSM Frankenberger – representing the Steinhardt brand – took part as an exhibitor at the DWA Rainwater Days in Hamburg. The event focused on rainwater management, climate-resilient urban development, and adaptation to extreme weather events.

Our colleague Yu Zhang was on site to present our solutions and engage in valuable conversations with industry experts.

**We were pleased to contribute to this important dialogue on sustainable stormwater infrastructure.**



## New Longship series: more compact, more efficient, future-orientated

Since 1997, we have enjoyed a close and successful partnership with Viking River Cruises, one of the world's leading providers of river cruises. Over the last two decades, we have jointly realized numerous ships that impress with their quality, functionality and modern design. The new ships in the Longship series continue this success story. In future, they will be travelling on the Rhine, Main and Donau and will each offer space for up to 190 guests. The purist Scandinavian design, which is typical of Viking and

combines comfort and elegance in a unique way, remains a characteristic feature.

With the start of construction of the ship NB588, a new generation of Viking ships is now being launched, comprising a total of 16 units up to NB604. This new series has been fundamentally revised and is much more compact in design, technically optimized and economically more efficient in operation.

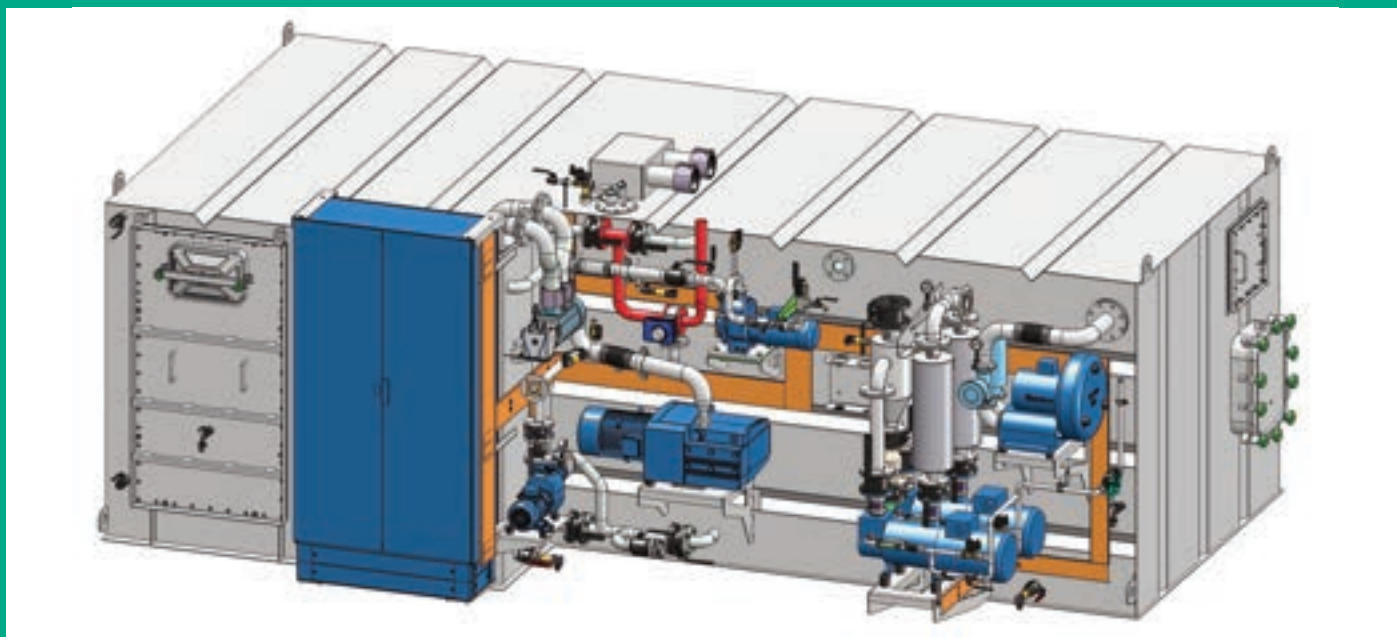
The centerpiece is the revised BMA 50R wastewater treatment plant, which is specially designed for use on board with an organic capacity of 48.6 kg BOD<sub>5</sub> per day and a hydraulic capacity of 50 m<sup>3</sup> per day. The compact stainless steel tank design facilitates maintenance and servicing while also improving operational safety.



Longship series of Viking River Cruises

# Membrane Filters for Membrane Bioreactor (MBR) Application

For municipal, industrial and maritime sector



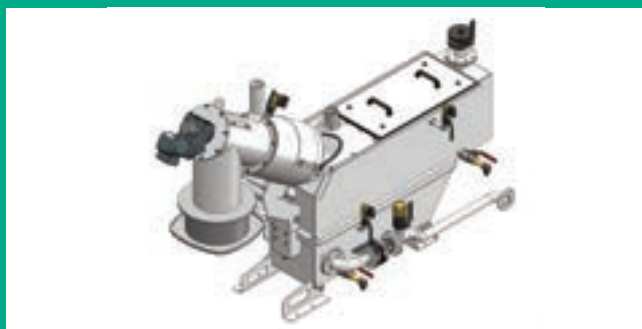
Abwasseranlage, Viking

Compared to the previous generation, several technical improvements have been implemented: The previous mechanical pre-cleaning with a screening material tank has been replaced by a modern screening unit with screenings dewatering. In addition, the mixing tank has been relocated upstream of the fine screening, which improves the efficiency of pre-treatment. The aeration system has also been redesigned - self-made disc aerators now ensure more oxygen distribution with less maintenance.

A key innovation of the new series is the introduction of the sludge disintegration unit, which replaces the previous ship-built sludge tank. This significantly

reduces the amount of sludge produced - with a direct impact on disposal costs. A practical example from the Scenic Crystal from the 2019 season provides impressive proof of this: with around 300 m<sup>3</sup> of sewage sludge before disintegration, the volume was reduced by 60 % to 130 m<sup>3</sup>. With average disposal costs of €80 to €100 per cubic meter, this results in annual savings of around €15,000, with low maintenance costs of around €1,500 per year.

**With the new Longship series, together with Viking we are setting another milestone in the development of modern, sustainable and operationally optimized river ships.**



Mechanical pre-cleaning, Viking

plate ventilation



## Wastewater Treatment Plant Stolzenau: Renewal of Storage and Dosing Station

The wastewater treatment plant Stolzenau (Germany) has been extensively expanded to ensure its future viability. The previous storage and dosing station technology, with a 10 m<sup>3</sup> storage tank, had become outdated and no longer met current requirements. For this reason, the public company "Abwasserentsorgungsbetrieb Stolzenau" commissioned Likusta to manufacture and install a more efficient storage and dosing station, including a matching control cabinet.

### Certified Storage Tanks for the Highest Safety Standards

The renewal of the facility includes two above-ground, cylindrical PE flat-bottom tanks with conical roofs for chemical storage. The storage tanks are WHG-certified [acc. to German Water Resources Act] and each has a capacity of 20 m<sup>3</sup>. Due to the lack of direct access for tank delivery, the tanks were placed on the pre-prepared tank foundation using a crane. Using two storage tanks has the advantage of storing separately the chemicals used [ferric (III) chloride sulfate and aluminum sulfate]. This enables flexible adjustment of dosing to meet the specific process requirements.

A visual-mechanical indicator on the tank and an ultrasonic fill level measurement inside the tank keep the operating staff informed about the current fill level of the storage tanks. The safety of operations is enhanced using these two independent measurement methods. Should the ultrasonic level sensor malfunction due to technical issues, visual measurement may serve as an auxiliary source of data. To ensure the safe termination of the filling process, an overflow protection device is installed at the top of the storage tank and triggered by the maximum fill level, ensuring that the filling process can be safely terminated.

Additionally, each tank is equipped with a collection tray that reliably retains chemicals in the event of tank overflow or leakage, preventing contamination of the soil or groundwater. A leakage sensor installed in the collection tray detects the leaked medium and reports an alarm so that appropriate measures can be initiated at the Stolzenau sewage treatment plant.



storage tank with filling station

# Clear Choice

for waste water and waste gas treatment

## Measuring and Dosing Concept

Each dosing panel is enclosed in a weatherproof cabinet and installed adjacent to its corresponding storage tank. A control cabinet, tailored to this system, controls the two dosing processes. The dosing panels are equipped with dosing pumps, overflow and pressure retaining valves. A pulsation damper integrated into the pressure line effectively regulates the impulsive pressure surges from the dosing pumps, protecting the piping system of the dosing panel. Furthermore, the pulsation damper ensures a linear flow rate.

The various components ensure a consistent and reliable dosing process for the required chemicals. Just as the storage tanks, the entire dosing system is WHG-approved. A leakage sensor installed at the bottom of the dosing panel continuously monitors the area for potential leaks, ensuring safe operation. Extraction from the storage tanks is achieved by the hydrostatic pressure of the tank contents, as the dosing pumps on the dosing panel are positioned below the maximum liquid level of the tank resp. by the suction capacity of the dosing pumps.

The precise control of the dosing station provides optimal chemical dosing and combines operational safety, environmental protection, and cost-effectiveness.

**We would like to thank everyone involved for the excellent and constructive cooperation, which made the successful implementation of the project possible.**

dosing panel



control cabinet: wiring

## Technical Flood Protection FSM Frankenberger GmbH, Steinhardt® Branch

### Flood protection as an integral part of water and urban development

Due to climate change, the frequency and intensity of heavy rainfall events are generally increasing. As a result, more and more regions are being affected by sometimes devastating flood events.

To mitigate the risks of flooding caused by heavy rainfall or rising water levels in rivers and streams, a comprehensive catalogue of preventive protection measures has been developed. These include natural measures that focus on watercourses or the surrounding area, such as the renaturation of rivers or the creation of natural retention areas and floodplains.

Since the early 2000s, modern stormwater management concepts have also been increasingly incorporated into urban planning (e.g., surface de-sealing, greening, infiltration, temporary storage, and the use of rainwater) to preserve the local water cycle as much as possible and reduce surface runoff.

Another important pillar of integrated flood protection strategies is the implementation of various technical protection measures to safeguard urban areas or specific structures in a targeted manner.



Figure 1: FRB Sulzberger Bach, Bavaria (left), HydroMaxx® flow regulator (center) and gear unit (right)

# Sustainable innovations made of stainless steel

Specialist in Urban Water Management

## Products for technical flood protection

In the field of technical flood protection, FSM Frankenberger, Steinhardt® Branch, offers high-quality, field-proven special systems for equipping flood retention basins, including:

- HydroMaxx®-flow regulators
- HydroSlide®-flow regulator
- HydroLatch®-relief valves

As well as other certified products for linear and structural protection:

- HydroBeam®-demountable barrier systems
- HydroSwizz®-emergency protection wall

FSM, Steinhardt® Branch, is regularly involved in flood protection projects and works closely with the engineering firms commissioned to implement

these projects, even during the planning stages. In addition to the growing demand for structural and linear protection systems, there is also an increasing number of new flood retention basin (FRB) designs. These are primarily used to protect downstream areas in mountainous regions by ensuring controlled discharge of floodwaters (Figures 1 and 2).

### HydroMaxx® and HydroSlide® Flow Regulators

- Robust float-operated flow regulators for controlled discharge of high flow volumes from flood retention basins
- Constant discharge rates over a wide water level range, up to approx. 15 meters
- Energy-independent functionality ensures autonomous and safe operation in the event of a power outage



Figure 2: FRB Bachern, Bavaria (left); HydroSlide® flow regulator with amphibian passage (right)

## Groundbreaking Ceremony for New Production Hall at FSM Frankenger in Pohlheim

**On June 12, 2025, FSM Frankenger marked the symbolic groundbreaking for a major expansion at its main production site in Pohlheim. With the extension of its existing office and production facilities, the company is sending a clear signal of growth, long-term security, and strong regional commitment.**

The new space not only addresses the urgent need for increased capacity due to growing demand but also creates room for additional jobs. Once again, FSM Frankenger affirms its long-term dedication to the Pohlheim site – and to sustainable economic activity in the region.

Gathered for the ceremonial groundbreaking were representatives directly involved in the project, as

well as members of the management team. Among them were Managing Directors Guido Frankenger and Rainer Döll, authorized signatory Jan Scherer, construction managers from WILO – FSM Frankenger's parent company – along with the site manager and legal representative from the construction firm Hellmich. Together, they posed for a brief photo – a visible symbol of the next stage in the site's development.

Completion of the new hall is scheduled for next year. The expanded company premises will then host a modern building designed to meet future production requirements while also offering space for new ideas, collaboration, and innovation.

**With this expansion, FSM Frankenger strengthens its position as a leading provider in the field of environmental technology – while staying true to its roots: quality, reliability, and progress “Made in Pohlheim.”**



New Production Hall

# The specialists for environmental technology

Machines for water and wastewater treatment



In the photo (from left): Bernhard Wieling and David Wiethölter (WILO SE construction managers), site manager Stefan Reischl, FSM authorized signatory Jan Scherer, FSM managing director Guido Frankenberger, construction lawyer Thomas Blatt and FSM managing director Rainer Döll.



[WWW.FSM-UMWELT.DE](http://WWW.FSM-UMWELT.DE)

**Our vision:** Improving life  
with clean air and water

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