360°

THE VOGELSANG MAGAZINE

WHEN EVERY MINUTE COUNTS

Vogelsang is placing a greater focus on disaster relief

DISASTER RELIEF
Vogelsang pumps against flooding
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SEPARATION IS HALF THE BATTLE
How to make biogas plants more efficient
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VOGELSANG

For reasons of readability and practicality, the masculine form is used for personal nouns and pronouns throughout this text. These formulations equally encompass all genders, including female, male, and non-binary individuals. The shortened linguistic form serves editorial purposes only and carries no value judgment. We address all people equally with this wording.

Dear readers,

Focus creates clarity. It helps us set priorities, pool our resources, and concentrate on what is essential. That is precisely what this issue of "360°" is all about. A glance at the table of contents reveals that we are focusing on topics that are becoming increasingly important for us as a company – and for our society.

This time, the focus is on disaster control. Extreme weather events such as floods are on the rise worldwide and repeatedly remind us of the importance of a functioning rescue service. Supporting this service is a matter of great importance to the entire Vogelsang team and to me personally. What are we doing specifically? On the one hand, we support our employees' voluntary work as volunteer firefighters, for example by granting them time off for operations and exercises. On the other hand, we are applying our decades of know-how to develop solutions for disaster control. With our expertise, we want to help ensure that technical assistance is available quickly and effectively in an emergency. You can find out more about our activities in this area and our participation in the "Interschutz" trade fair in the focus topic on page 46.

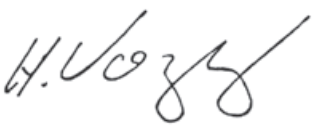
For us, focus also means continuously developing our own company and clearly aligning it. One example of this is the renaming of our "Transportation" business unit. In the future, this segment will operate under the name "Infrastructure." This name reflects the expanded fields of application and creates more room for further development in this area. You can read about our plans in this area in the article on page 16.

Another focus is on the challenges our customers face across all industries. New regulatory requirements, such as the amendment to the EU Municipal Wastewater Directive (KARL) or the increasing flexibility of biogas plants, show that many markets are undergoing dynamic change. In the industry sections, we therefore take a close look at these developments and present practical solutions.

A lot has also happened at Vogelsang itself since the last issue. With new branches, a strengthened team, and cross-segment product innovations, we are resilient and future-proof. Our business figures also show that we are on the right track: after a successful 2025, the current fiscal year is also developing positively so far.

With this clear focus, we are looking ahead with optimism – not least because a year full of trade fairs offers many opportunities to talk to you in person. You can find a selection of our international trade fair appearances in the trade fair preview starting on page 10 .

We hope you enjoy reading it.



Sincerely yours,
Harald Vogelsang

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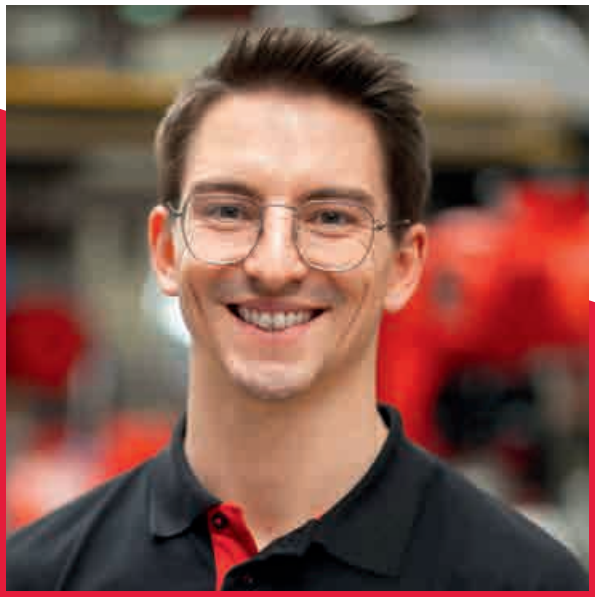

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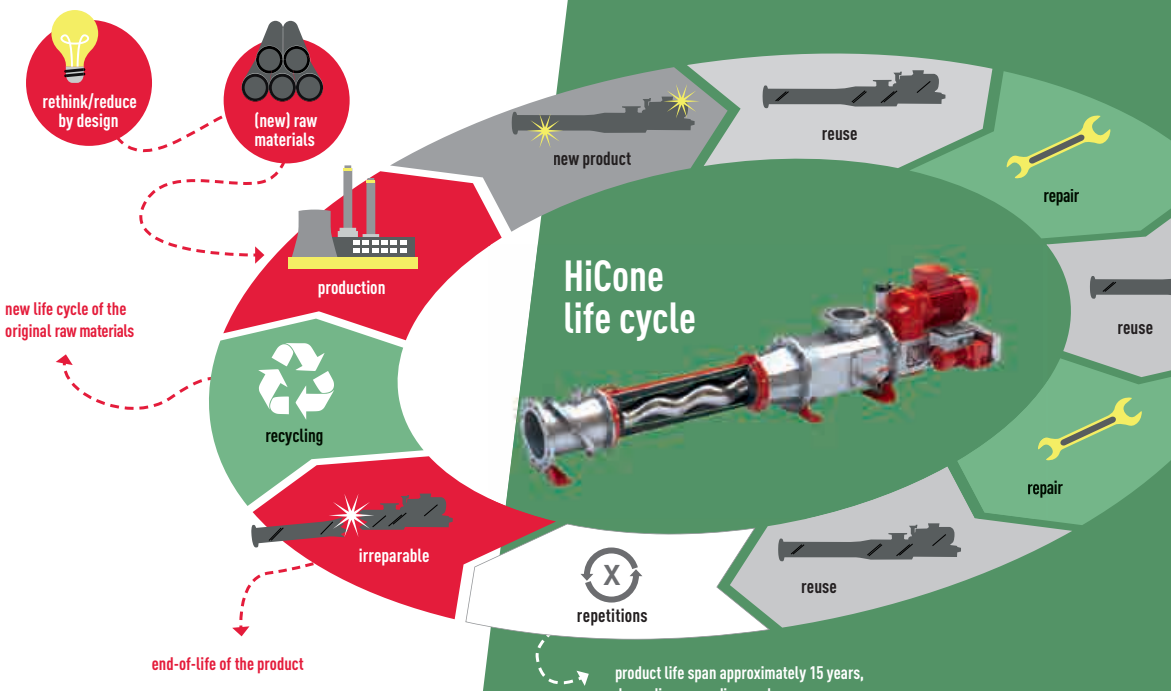


NEWS

WORLD WIDE

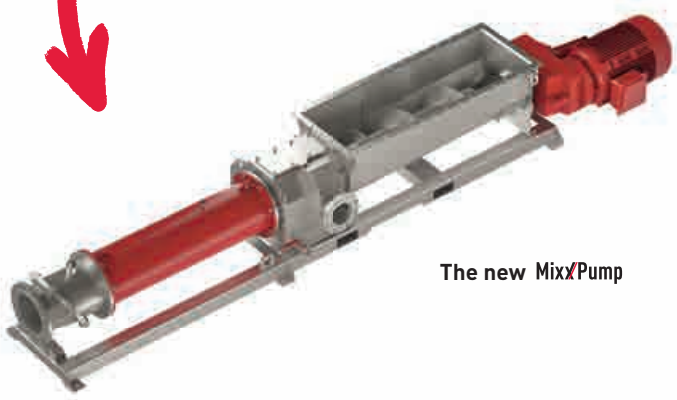
Vogelsang trade fair highlights in review

AGRI TECHNICA
THE WORLD'S NO.

Agritechnica – the world's leading trade fair for agricultural technology

November 9 – 15, 2025, Hanover (Germany)

At Agritechnica, Vogelsang presented its innovations and further developments for economical, powerful, and low-emission slurry management. In addition to the **XSplit XS30-80** press screw separator with a throughput of up to 175 cubic meters per hour and the **XSplit Compact,** the focus was on the **UniSpread** universal linkage with a new working width of 12 meters and the LoadMaster pump designed specifically for tankers. Interested visitors were also able to look at the **VX186-650 QD** – a rotary lobe pump in a new performance class that achieves a delivery rate of 15,000 liters per minute. Other highlights at the stand were the **BlackBird Light and Pro** linkages in direct comparison, as well as various other solutions for sustainable slurry management.



The new MixXPump

BIOGAS Convention

BIOGAS Convention & Trade Fair – the central meeting place for the biogas and bioenergy industry

December 9 – 11, 2025, Nuremberg (Germany)

Vogelsang was represented at the BIOGAS Convention with an absolute highlight: the new **MixXPump,** a compact solids dosing system for the economical feeding of easily handled input materials such as corn silage or dry animal feed. The MixXPump can be easily integrated into the feeding line of a biogas plant. Another product highlight was the **PreMix IC/ICC** liquid feeding system, which combines four work steps in one compact unit. With both the MixXPump and the PreMix, biogas plant operators can set up the feeding technology in their plant efficiently and in line with the latest standards – adapted to the plant-specific requirements. Another highlight at the stand was the **XSplit XS30-80** press screw separator.

LAMMA™
14-15 JANUARY 2026

LAMMA Show – Trade fair for agricultural machinery and technology

January 14 – 15, 2026, Birmingham (Great Britain)

In addition to the **XSplit** and **XSplit Compact** press screw separators, the **UniSpread** and **BlackBird** linkages and agricultural pumps were the focus of attention at the LAMMA Show. A special highlight: using VR glasses, visitors at the stand were able to dismantle an XSplit into its individual parts and gain an insight into the structure of the separator.

NEWS

IFAT Saudi Arabia

IFAT Saudi Arabia – Leading trade fair for environmental technologies, water and waste management in the Middle East

January 26 – 28, 2026, Riyadh (Saudi-Arabia)

Vogelsang presented a cutaway model of a **VX pump** and a 3D-printed model of the **HiCone** at the first IFAT show in Saudi Arabia. The trade fair brought together the most important players in the fields of waste management, water management and environmental technologies in the Middle East and North Africa.

Vene Båt – Northern Europe's largest boat show

February 7 – 16, 2026, Helsinki (Finland)

Vogelsang presented the PierPump hygienic wastewater disposal system for marinas at Vene Båt in Helsinki. The trade fair is considered the most important meeting place for the Nordic boat industry and is an annual highlight for water sports enthusiasts.

PUMPS & VALVES – Trade fair for industrial pumps, valves, and processes

February 25 – 26, 2026, Dortmund (Germany)

At PUMPS & VALVES, Vogelsang presented its robust and flexible pump and shredding solutions for demanding industrial requirements. In addition to the **HiCone** progressive cavity pump, the powerful rotary lobe pumps of the **VY and VX series** were also on exhibited at the booth. Another highlight was the **XRipper XRP** twin-shaft shredder used in industrial wastewater handling. As a space-saving inline version of the XRipper series, it is designed for installation in pipelines.

IFAT – World's leading trade fair for environmental technologies

May 4 – 7, 2026, Munich (Germany)
Hall B1, Booth 347 & Hall B6, Booth 128

Sewage treatment plant operators rely on sustainable and energy-efficient yet powerful technologies that reduce electricity consumption and meet the demanding process requirements. The operators will face new challenges with the EU Municipal Wastewater Directive (KARL) and the fourth treatment stage. Due to the new regulations innovative technology is gaining more importance. Manufacturers will be showcasing their latest innovations at IFAT, the world's leading trade fair for environmental technologies. Vogelsang also presented new and upgraded products: The fair highlights included the new **RotaCut Professional** equipment package featuring an innovative Eco Mode, which reduces downtimes and wear, and the new **RedUnit XRL** industrial grinders with more powerful and higher throughput in addition to increased ease of maintenance and service. They are particularly suitable for demanding applications in industry and recycling. In addition, Vogelsang presented progressive cavity pumps based on the unique **HiCone** technology for flow rates in the lower performance range.

NEWS

SAVE THE DATE

Upcoming trade fair highlights worldwide with Vogelsang presence

UK Rail – Railway trade fair

May 13 – 14, 2026 in Birmingham (Great Britain)
Hall 3A, Booth F46

UK Rail is the meeting place for the entire rail industry – a space to connect, collaborate, and showcase the very best of UK rail. It brings together leaders from across the UK rail sector, rail projects and operators, rolling stock OEMs, suppliers, and innovators. The focus at the Vogelsang booth is on the **BioUnit.**

Water Equipment Show
Trade fair for water and wastewater management

May 14, 2026, Telford (Great Britain)
G16, exhibition area

The Water Equipment Show is an integral part of our trade fair calendar. As a pump specialist, we are once again sponsoring the WES Pump Operations Challenge, a friendly competition focusing on pump technology and maintenance. And this year, our wide range of high-performance pump and grinding solutions, such as the **VX series** and the **RotaCut** wet cutter, will once again be the focus of our trade fair presentation.

Ozwater
Trade fair for the Australian water industry

May 26 – 28, 2026, Brisbane (Australia)
Halls 1&2, Booth D18

Ozwater is the leading trade fair for the Australian water industry. Trade visitors can find out about macerator and pump solutions for efficient wastewater treatment at the Vogelsang Australia booth.

Interschutz – Leading international trade fair for firefighting, rescue services, and civil protection

June 1 – 6, 2026, Hanover (Germany)
Hall 17, Booth D31

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This year, Vogelsang will be exhibiting at "Interschutz", the world's leading international trade fair for fire and disaster protection, rescue and safety. At our booth, we will be showcasing our pump solutions for use in disaster situations. Our solutions can be deployed quickly and flexibly in the event of a disaster. Our mobile rotary lobe pumps have already proven themselves in pumping operations during floods and other disaster situations.

THE WORLD BIOGAS EXPO 2026
ADBA 8-9 JULY, NEC, BIRMINGHAM, UK


© biogastradeshow

World Biogas Expo – Trade show dedicated to the global anaerobic digestion (AD) and biogas sector

July 8 – 9, 2026, Birmingham (Great Britain)
Hall 3, Booth E54

At the World Biogas Expo, one of the leading trade fairs in the biogas sector, we will be presenting our technologies for efficient biogas production. Our trade fair highlights are our systems for demand-oriented solids dosing, including the **MixXPump** and the modified **PreMix.** We will also be presenting other solutions that play an important role in optimizing the energy efficiency of biogas plants while reducing operating costs. We will also be giving an expert presentation on optimizing biogas processes.

InnoTrans

InnoTrans – Leading international trade fair for transport technology

September 22 – 25, 2026, Berlin (Germany)
Hall 6.2, Booth 315


© innotrans

Sub-divided into the five trade fair segments Railway Technology, Railway Infrastructure, Public Transport, Interiors and Tunnel Construction, InnoTrans occupies all 42 halls available at Berlin Exhibition Grounds.

The Railway Technology segment presents advanced mobility solutions that set new standards in the world of rail transport. The focus here is on technologies designed to optimise operations, improve safety and support the sustainability of entire systems – Vogelsang is in the right place with its diverse solutions for the railway.

© ecomondo

ECOMONDO
The green technology expo.

Ecomondo – International trade fair for green and circular technologies

November 3 – 6, 2026, Rimini (Italy)

Ecomondo is the most important trade fair for the green economy and circular economy in Europe. Here we will be presenting our proven and innovative solutions for biogas, wastewater and environmental technology, which contribute to sustainable and efficient plant operation. See you in Italy!

NEWS

EuroTier – World's leading trade fair for professional animal husbandry and breeding

November 10 – 13, 2026, Hanover (Germany)

© DLG

EuroTier is a fixed date in our trade fair calendar. At the world's largest trade fair for modern animal farming and livestock management, we present our innovative solutions for economical and efficient slurry management. From precise spreading systems with high distribution accuracy to powerful slurry macerators and innovative separation technology with high throughput volumes, we offer a broad portfolio for farmers and contractors.

EnergyDecentral – Leading trade fair for decentralized energy supply

November 10 – 13, 2026, Hanover (Germany)

© DLG

Optimizing biogas plants – with modern liquid feeding systems and powerful solutions for the entire fermentation process, right through to fermentation residue utilization. With our solid matter dosing systems such as **PreMix** and **MixXPump,** our **XSplit** separator, and our pump and shredding solutions, we offer practical systems for efficient biogas production. Trade visitors can experience our solutions closely at EnergyDecentral. We look forward to seeing you in Hanover!

© Tony Brøchner

Agromek – Trade fair for agricultural machinery and technology

November 24 – 27, 2026, Herning (Denmark)

At Agromek, we will be showcasing our latest solutions for farmers and contractors, such as the **BlackBird** trailing shoe linkages, the **XSplit** press screw separator, and other machines and components for precise and low-emission slurry spreading.

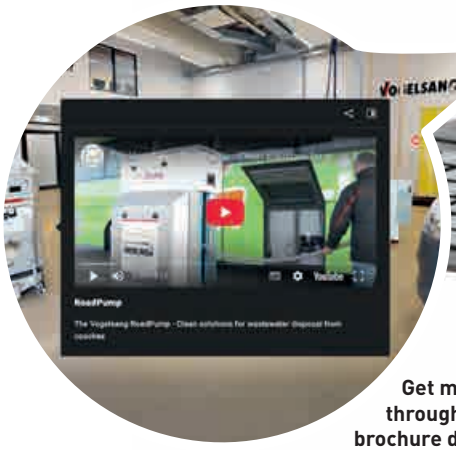
NEW: VIRTUAL SHOWROOM INFRASTRUCTURE

A comprehensive overview of our solutions for bus, railway, and boats

Digital yet up close: in our new virtual showroom, you can experience our infrastructure solutions from a 360° perspective. The focus is on our efficient solutions for water supply and wastewater disposal in trains, buses, and boats, as well as service units and stations, which visitors can explore virtually. They can learn about the products interactively using various touchpoints. Multimedia content such as videos and animations shows the solutions in use, provide further information, and thus complete the digital product experience. ■

Infrastructure

Dive into the world of infrastructure technology! This way:



Get more information through videos or brochure downloads

Browse freely or navigate directly to the highlights

NEWS

EXPERIENCE BIOGAS TECHNOLOGY

Impressions from the biogas press day at Vogelsang headquarter

What is driving the biogas industry? What are the political intentions to promote biogas in the renewable energy mix and recognize it as an integral part of the base load supply? And what course must plant operators set today to equip their plants for the future? We addressed these questions together with biogas journalists at the biogas press day at our headquarters in Essen (Oldenburg).

Exclusive preview of new products

Shortly before the BIOGAS Convention & Trade Fair in December, we offered members of the press an exclusive look at our latest developments in the field of solids dosing and separation. The focus was particularly on the compact MixXPump solids dosing unit and the high-throughput XSplit XS30-80 press screw separator.

Are separators used more in stationary or inter-company applications? How can the conveyor elements of the HiCone, the heart of the MixXPump, be adjusted? Our product experts answered these and other application questions directly at the machine – in a practical manner and based on experience from numerous customer installations.

The PreMix ICC in use at the Lamping biogas plant

"At trade fairs, you usually don't have enough time for discussions and information exchange. That's why we really appreciate the opportunity to talk to journalists in advance. The relaxed atmosphere of an exclusive press preview creates more space for in-depth discussions, individual detailed questions, and live demonstrations."

Carsten Wenner, Marketing Manager for biogas and wastewater at Vogelsang

Visit to the Lamping biogas plant

Another highlight of the press day was the joint visit to the neighboring Lamping Energie GmbH & Co. KG biogas plant. There, participants were able to see the modified PreMix ICC liquid feeding system in action. Vogelsang launched the PreMix ICC at the end of 2024. The plant operator reported on his experiences with the system in daily practice at the press day and answered questions from trade journalists.

Exchange on equal terms – valuable for both sides

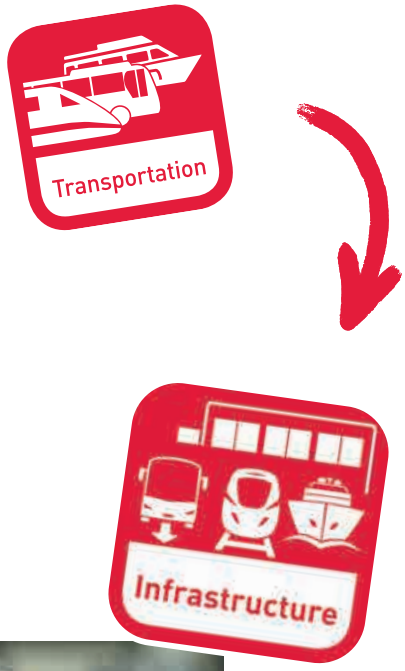
The intensive technical discussion about technical innovations, industry trends, and future developments clearly showed that everyone involved benefits from the transfer of knowledge. Journalists gain additional insights into the challenges facing the biogas industry and approaches to overcoming them, while we at Vogelsang gain valuable inspiration from the journalists' diverse perspectives.

We would like to express our sincere thanks to all participating journalists for their interest, their time, and their many years of trusting cooperation. We look forward to further discussions this year – and to continuing to think ahead about the future of the biogas industry together! ■

"Vogelsang is a highly innovative mechanical engineering company. Being given an exclusive preview and explanation of new products ahead of a major trade fair such as the BIOGAS Convention represents an important date in the calendar. The new MixXPump with its adjustable conveying elements and the new XSplit XS30-80 press screw separator are particularly interesting developments for biogas plant operators, and we are delighted to report about them. The press event was rounded off with a visit to a biogas plant located near the company headquarters, where the innovations could be seen in action in a harsh everyday environment. The discussion with the plant operator also provided a good insight into how the technology works."

Martin Bensmann, Editor-in-Chief of BIOGAS Journal

NEWS



MORE ROOM FOR GROWTH

"Transportation" becomes "Infrastructure"

The Vogelsang "Transportation" business unit becomes the name "Infrastructure". This allows the company to describe even more precisely where the solutions of the segment are used – namely in technical supply and disposal infrastructure.

Vogelsang is recognized as a leading manufacturer of supply and disposal systems in the infrastructure sector, particularly in railway technology, and offers high-performance, customer-friendly service solutions for buses and boats. These solutions ensure that supply and disposal processes function reliably behind the scenes. The term "Infrastructure" clearly summarizes these areas of application while simultaneously sharpening the message to target groups. Additionally, the new name creates more room for the further development of the business unit to tap into additional application areas in the future – such as lifting systems in tunnels, subway shafts, or sports facilities.

Across countries and continents

At the same time, the segment's focus has continued to evolve in recent years: While the focus used to be primarily on Germany and the DACH region, the division is now also active in other parts of Europe as well as in the U.S. For example, Vogelsang systems are already in use in railway depots in France, Denmark, and the Czech Republic. The company has secured additional major contracts through Europe-wide tenders.


Michael Brinkmann

At the same time, Vogelsang is intensifying its engagement with the international rail industry: industry gatherings of European rail companies, such as the "Railway Supplier Summit," bring together operators, buyers, and manufacturers. Vogelsang uses these platforms to present its solutions in direct dialogue with the industry. ■

"With the 'Infrastructure' segment designation, we are addressing users and markets even more precisely. This step gives us the scope to further expand the segment and tap into new infrastructure projects."

Michael Brinkmann, Chief Sales Officer at Vogelsang

NEW TO THE TEAM

AXEL GELHOT

Marketing Manager

Axel Gelhot (53) has been Marketing Manager for the Agricultural Technology segment since June 2025. The business economist (VWA) brings with him many years of experience from various marketing and communications roles in the industrial B2B environment.

360°: Axel, what has been your personal highlight at Vogelsang so far?
Axel: In addition to the sheer size of the machines, what fascinates me most about Vogelsang is its global, international orientation and the broad range of segments it covers. I was particularly impressed by the "Onboarding" done through the Vogelsang Academy, where the content was conveyed in a very professional and exciting way, both theoretically and hands-on. However, my absolute highlight was the preparation for and participation in Agritechnica 2025 in Hanover.

360°: What do you want to focus on in your segment?
Axel: It is important to me to highlight the advantages and concrete benefits of Vogelsang technology in slurry management even more clearly throughout the year and across the various channels. There are many exciting stories to tell from different perspectives – about the technology, about the customers, and about the industry.

360°: How do you personally measure the success of marketing?
Axel: Anchoring the company and its products in the minds of the target group with the help of relevant, industry-specific content is one thing. Targeted delivery and actual perception in the market segment is another. Ultimately, success is determined by the optimal interaction of all communication and presence measures, as well as a positive perception in the industry.

Great to have you on the team, Axel! ■

MARK AHRENDT

Market Development Manager Biogas

Since childhood, Mark Ahrendt has moved between Germany and Canada. A trained foreign trade specialist in the chemical sector, he brings extensive expertise in the chemical industry, the recycling sector, and environmental technology, along with over 17 years of experience in biogas. Since October 2025, he has been contributing his know-how as Market Development Manager Biogas (Global Markets) at Vogelsang – driving international business development, analyzing market potential in regions such as North and South America, India, and Europe, and building process knowledge around biogas plants across the international subsidiaries.

Identifying and Leveraging Market Potential
Using calculation models he developed himself, Mark analyzes individual biogas markets and the business potential they hold. "Vogelsang already has an extremely strong reputation in the German and European markets. In my role, I have set myself the goal of positioning the company as a competent partner for liquid feeding in biogas plants in additional target markets as well." Mark knows that every region has its own requirements: "In India, Brazil, or Canada, different substrates and input materials are used than in Europe. Understanding these market conditions is the first step toward identifying the precise needs of customers and establishing a long-term foothold in new markets."

Advancing Knowledge and Building Customer Proximity
Training staff at the international subsidiaries is also a central aspect of Mark's role. "An important outcome of my work is that sales teams gain even deeper knowledge of the entire biogas process, enabling them to advise customers more needs-orientedly and thereby build trust in Vogelsang's expertise and products."

Mark, we are delighted to have you here! ■

NEWS

WITH DRIVE AND VISION

Josef Gasthuber retires

After nearly twelve years, the Vogelsang family bids farewell to Josef Gasthuber as he enters his well-deserved retirement. As the founding managing director, Josef has built up the Vogelsang subsidiary in Austria since 2014 and set it on the path to success. "What began in a temporary office on a folding chair at a patio table has developed into a major player in the market. Today, Vogelsang Austria has become an indispensable part of the Austrian agricultural and biogas sectors, as well as of industrial and infrastructure projects in the field of railway waste disposal," Josef sums up.

At home in many industries

Whether rotary lobe pumps, dribble bar systems, or separation solutions – the 63-year-old has continuously expanded the branch's portfolio and services with his team and steadily increased business revenue. Josef: "While the COVID-19 crisis brought many industries to a standstill in 2020, investment subsidies for low-level slurry application in Austria were increased to 40 percent, which really got our retrofit business for dribble bar systems up and running. The agricultural technology segment remains our biggest revenue driver to this day."

With 4.1 million euros, Vogelsang Austria achieved its highest revenue last year since the subsidiary was founded. Josef also expects further growth for the new fiscal year. He sees Vogelsang's services in the railway sector and the major order from Austrian fire departments for high-performance pumps for disaster and flood control as key drivers.

A defining experience: Flooding in Lower Austria

A heavy rain event led to a catastrophic flood in Lower Austria. In the immediate vicinity of the branch office, the flooding reached unprecedented proportions. A stored three-point truss pump and a pump trailer from Vogelsang were quickly deployed to aid in the hardest-hit communities. The Vogelsang pumps helped pump out flooded basements, remove surface water from flooded residential and commercial areas, and lower the high groundwater level in particularly affected areas through pumping. "Through our efforts, we were able to help many people, and despair turned back into hope," says Josef.

He served as a volunteer for about a week. He recalls: "Many people in the region, including one of my employees, were severely affected by the devastating storm and its aftermath. Fortunately, our Austrian branch in Pyhra, west of Vienna, was barely affected by the flooding at the time. This allowed us to help in the disaster areas quickly and without red tape. We worked closely with the local fire departments to ensure the pumps were deployed in a coordinated manner where they were needed most urgently."

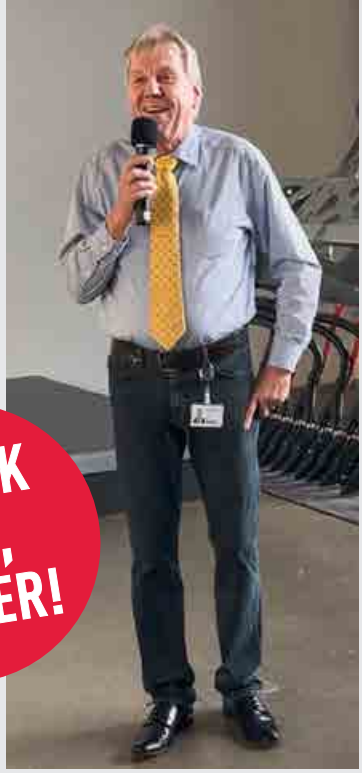
What else does he remember from his time at Vogelsang? "I always felt that people were the focus," says Josef. He continues: "Now I'm looking forward to moving forward with my personal projects and traveling with my wife Barbara. I've already passed the branch management on to Wolfgang Kaiblinger, and I'm confident things will continue to go well. I'll still be available to answer any specific questions, even in retirement."

Vogelsang says thank you, Josef! Thank you very much for your dedication and commitment, which often went beyond the scope of your job description. We wish you all the best for your future! ■

Vogelsang pumps in use during the flood disaster

ANYONE CAN DO "SIMPLE".

Rainer Zobel and his time at Vogelsang



THANK YOU, RAINER!

Around 90 employees, 5 million German marks in annual revenue (equivalent to approx. 2.56 million euros), generated almost entirely from the agricultural technology segment: This was the backdrop against which Rainer Zobel (born in 1960) began his professional career at Vogelsang. The trained mechanical engineer had already gained international experience at another pump manufacturer and joined Vogelsang in July 1994 as Sales Director with a clear mission: to expand sales territories in Germany and worldwide and tap into new markets. "Back then, Vogelsang operated almost exclusively in the agricultural sector and had only one branch of its own in Denmark," recalls Rainer.

Building sales and international branches

What followed was pioneering work in the truest sense. Rainer built up sales outside the agricultural machinery sector, thereby laying the foundation for the new business areas of wastewater, industry, and biogas. Together with the management team led by Harald Vogelsang, Rainer played a leading role in establishing new branches. As a result, the company has grown to include over 30 subsidiaries and representative offices in more than 50 countries, employs over 1,300 people worldwide, and has generated annual revenue of approximately 200 million euros in recent years. Staff selection, country- and market-specific portfolios, training, and customer acquisition: these key responsibilities took Rainer to many countries around the world and provided plenty of stories.

The world in view – and on the plate

One experience has stayed with him: "Due to my tight schedule on site, I usually saw very little of the country itself. That's why it was always important to me to eat local specialties and learn a little more about the country and its people, at least through its cuisine. So it happened that during a five-day stay in Spain, I ordered Crema Catalana ten times. I was simply captivated by that creamy dessert with its caramelized sugar crust," Rainer still raves about it today.

Knowledge sharing and innovation

In addition to building up the sales force, he also served as a knowledge broker for decades: For more than 25 years, he conducted product trainings, sometimes for up to ten weeks a year. These sessions focused not only on technology but also on sales pitches, applications, and keeping an eye on new developments. Many ideas for products and features came directly from the sales team – a principle that Rainer always championed.

He also vividly remembers his first trade show appearance for Vogelsang in 1994 at TerraTec in Leipzig, a trade fair for environmental technology and services. "Our booth was very simple: mobile partitions, pumps from the warehouse instead of shiny trade show exhibits. And to top it off, we were placed right next to my former employer and competitor. I'll never forget the pitying looks from my former colleagues," Rainer says with a smile, adding, "That company no longer exists in that form today."

Trust-based collaboration

His conclusion after over 30 years as part of the Vogelsang family: "Together with management and our dedicated colleagues, we have achieved many goals and contributed significantly to the company's strong international presence. Smooth sailing was not often the case, but we worked together in mutual trust. It wasn't always easy, but anyone can do the easy stuff."

Now a new chapter in Rainer's life begins. One that he's consciously choosing to take a bit slower. More time for family, for his own garden, and for cycling trips through Germany. But he won't be saying goodbye completely: Whenever support is needed, Rainer will still be available for product training. And what does Rainer wish for Vogelsang? "I hope the company continues to develop so well," he says. He helped lay the groundwork for that.

Thank you very much, Rainer! ■

NEWS

20 YEARS OF VOGELSANG POLAND

From a four-person team to a strong market partner

Piotr Tarkowski

When Vogelsang established a subsidiary in Poland in 2006, the idea was clear: get closer to customers and strengthen its market position. "The Polish market was growing slowly but steadily. Having our own subsidiary was the right step," recalls Managing Director Piotr Tarkowski, who has led the company since its founding.

Starting with four employees, the branch today employs more than 20 people. Since 2017, the team has been working in a newly built company building in Rzeplin near Wrocław — a visible sign of growth.

New markets, new products

In its early years, Vogelsang Poland focused on wastewater and industry. New regulations in the field of renewable energies and a changing economy led to an expansion into the agricultural and biogas sectors from 2011 onwards. At the same time, the company's profile grew — thanks in no small part to professional service and reliable spare parts supply.

On the road to success

"With our subsidiary, we were able to show that there is another innovative company in Poland offering modern technology such as rotary lobe pumps and macerators," says Tarkowski. Today, the business is built on agriculture, biogas, and wastewater — with additional opportunities through infrastructure and railway projects.

Looking firmly to the future

"Our goal is to consolidate our market position, increase revenue, and continuously expand our portfolio." After 20 years, a small team has grown into an established market partner — with strong momentum for the next chapters of its success story. ■

VOGELSANG EXPANDS MANAGEMENT BOARD

Vogelsang has laid another groundwork for a sustainable organization and expanded its Management Board. To distribute the diverse range of responsibilities among more people, Markus Kolbeck, as Vice President of Engineering, and Johann Kezik, as Vice President of Operations, joined the Board. Gerrit and Robin Vogelsang, who represent the next generation, also took their place in the management board to steer the medium-sized family business confidently into the future. The seven-member Management Board includes (in the back l. to r.): Johann Kezik, Robin Vogelsang, Gerrit Vogelsang, and in the front l. to r.: Michael Brinkmann, Harald Vogelsang, Hugo Vogelsang, and Markus Kolbeck. ■

WELL PREPARED FOR EMERGENCIES

High-performance mobile pumps for fire departments in Austria

To strengthen their disaster response capabilities and be better prepared, particularly in cases of flooding and emergency drainage, fire departments in Austria have signed a five-year contract with Vogelsang for the supply of mobile pump technology for disaster control. The scope of these services includes high-performance pumps from the VX series mounted on roll-off containers with a flow rate of up to 900 m^3/h – equivalent to approximately 15,000 liters per minute. They are designed for large-scale operations in extensive flood zones and offer high flow rates combined with a compact design. For flooded roads, squares, or municipal infrastructure, mobile pump solutions from the VX series mounted on trailers are deployed. They have a flow rate of up to 350 m^3/h or 210 m^3/h, can operate autonomously, and are characterized by high mobility and rapid deployment.

"It is important to us that the technology is robust, field-proven, and ready for immediate deployment. Vogelsang's pump systems offer exactly this combination of performance, flexibility, and easy commissioning that we need in the field," says Mario Papst, commander of a company fire department in Styria, following a demonstration.


Mario Papst

Reliable pump technology for disaster control

Vogelsang develops its solutions for disaster control with a practical, mission-oriented approach. The mobile systems are designed to function reliably even when time, personnel, and infrastructure are in short supply. For more information, see the feature article on page 46 in this issue. ■

MAKING WATER MANAGEMENT FACILITIES FIT FOR THE FUTURE

Sewage treatment plant neighbors visit Vogelsang

Innovative wastewater technology for sewage treatment plants and sewer systems is essential today in order to meet the increasing requirements and legal specifications in the wastewater sector. For example, the amendment to the EU Municipal Wastewater Directive (KARL) stipulates stricter limits for phosphorus and nitrogen in effluent. The fourth treatment stage in wastewater treatment plants, which regulates the removal of microplastics and other poorly degradable substances, also poses new challenges for wastewater management. Operators need to make their water management facilities fit for the future in terms of energy efficiency and sustainability.

Innovative wastewater technology in focus

In order to stay up to date with the latest technology and keep an eye on innovations at an early stage, it is important to continuously educate oneself and exchange ideas with others. Sewer and wastewater treatment plant neighborhood meetings provide an opportunity for this. We regularly support this form of interactive training. Our wastewater experts attend local neighborhood meetings and enrich them with presentations, explanations, and discussions on wastewater technology.

In addition, we offer the opportunity to learn about our solutions for reliable wastewater treatment and disposal at our company headquarters. Just recently, the Diepholz wastewater treatment plant neighborhood visited us. Around 20 participating water management specialists took a close look at the wastewater technology on display in our showroom. During a tour of the production facilities, the group of visitors also gained exciting insights into the manufacturing processes at Vogelsang. ■

NEWS

LISA'S KNACK FOR LUCK

The winner of our contest from the last issue

It was definitely worth participating: Lisa Blank is the winner of the competition in the last issue of 360° and won an iPad. Congratulations and enjoy your tablet, Lisa!

We'd also like to take this opportunity to once again thank everyone who participated. We were thrilled by the great response! ■

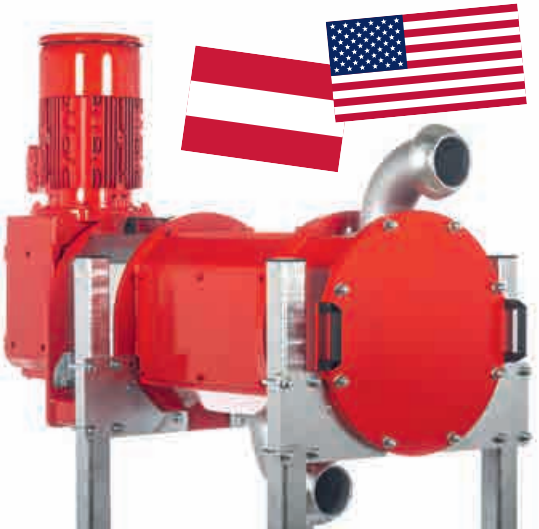
Lisa with the 13. issue of 360°

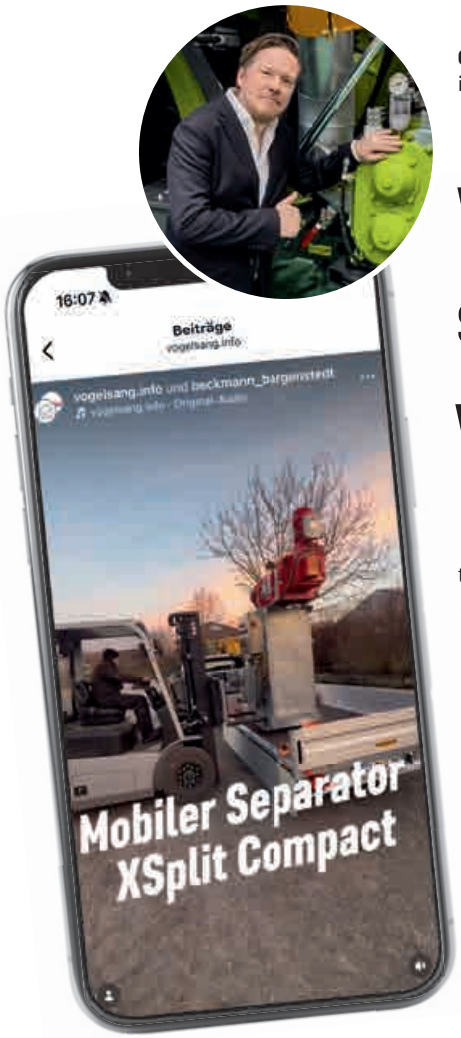
XSPLIT BOUNDLESS

Around the World with Separation Technology

What began in 2022 with demonstrations in Germany initially developed further in Ireland in 2023 and has since become an international success story: With demonstration days and presentations on the XSplit press screw separator, Vogelsang is putting the separation of slurry and fermentation residues in the global spotlight. Following the USA and Germany, interested parties were now able to experience the separation technology live in numerous other European countries – from Belgium and Denmark to Great Britain and Italy to the Netherlands, Austria, Poland and Czech Republic. The separator also made another stop in Ireland and Germany.

Whether in North America or Europe, users had the opportunity during the demonstrations to see for themselves how the XSplit works, its advantages, and its innovative design – and additionally to see live what modern separation technology can further achieve today. ■





Online Marketing Manager Christoph Meyer in action during a video shoot

VIDEOS SET THE TONE

Social Media: close to technology and people

Videos are firmly established on our social media channels – whether it's machinery in field use, trade fair appearances, or behind-the-scenes glimpses of apprenticeship training through the Instagram trainee channel. The closeness to real-world practice is what drives the success.

Quickly shot, authentically produced

Many videos are now created in-house: filmed with a smartphone, edited via app, and enhanced with music or effects. The machines often speak for themselves, with employees sharing their expertise in a targeted way. The approach pays off: an average of around 10,000 views per video, with one Agritechnica clip reaching approximately 39,000.

Success story XSplit

A video about slurry separation – filmed directly at a farmer's location – explains the added value during dry conditions and demonstrates the effect in a test field. The success inspired another clip: how farmers can save up to 25 percent in storage capacity thanks to separation. "It was great to see that the video resonated so well with its informative content," says Online Marketing Manager Christoph Meyer.

Growing presence

Vogelsang has also launched a LinkedIn Infrastructure channel as well as profiles for Vogelsang Africa and Colombia. A profile for India will follow soon. Collaborations with creators in the agricultural sector are also planned.

One thing is clear: the next chapters won't be written at a desk – but where technology, people, and practice come together. ■

GLOBAL PRESENCE, DIGITAL EXPERIENCE

Interactive map and new country versions

What has long been a reality in everyday life at Vogelsang is becoming increasingly tangible on our website – the international orientation of the company. This also shapes Vogelsang's self-image: the highest product quality through research, development, and production in Germany, supplemented by production centers abroad and a constantly growing network of subsidiaries and agencies. Today, Vogelsang is present in over 50 countries around the globe.

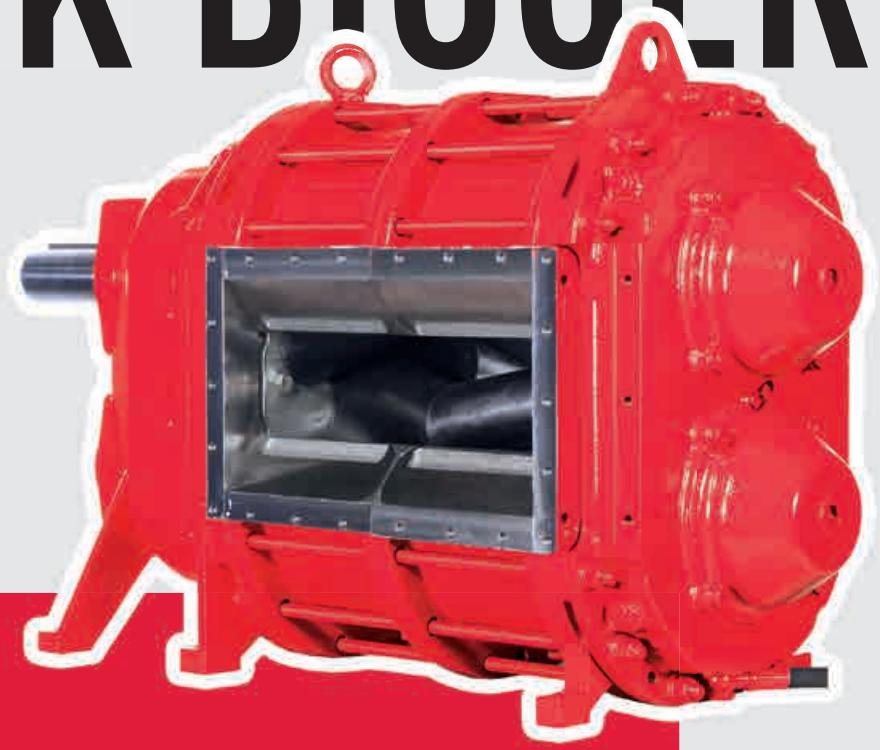
This international presence can now also be clearly discovered digitally: an interactive location map shows at a glance where Vogelsang is represented.

At the same time, we have expanded our digital world: with Greece, Kazakhstan, Romania, Norway, and Sweden new country websites are added to the portfolio. This means that the Vogelsang website is now available in a total of 17 languages and 27 country versions, with more already in the pipeline.

This brings our international orientation to life digitally – and makes our portfolio of solutions and services even more accessible to users worldwide. ■

THINK BIGGER

VX pump with increased performance



IN A NUTSHELL

The VX186-650QD is designed for maximum pumping capacity. It combines high performance with effective protection against foreign objects and a long service life. Developed for users who need to handle large volume flows safely and reliably.

Next level: With the VX186-650QD, Vogelsang is taking its VX series to a new level of performance. The rotary lobe pump achieves a maximum delivery rate of up to 15,000 liters per minute, making new applications possible where large volumes need to be transferred reliably and efficiently.

The pump is particularly suitable for demanding applications in slurry management where throughput, operational reliability, and durability are important. The new model is specially designed for use on self-propelled vehicles and spreaders. It combines high performance with the robustness which is typical for the VX series.

VX-typical strengths in a larger package

The integrated InjectionSystem reliably protects the pump from foreign objects and significantly reduces wear on the delivery elements. This extends the service life by up to 2.5 times compared to conventional pump solutions. At the same time, the system contributes to a smooth delivery process and supports trouble-free operation even under changing operating conditions.

Despite its high performance, the new VX pump is consistently designed for practical operation and ease of service. The proven design of the VX series allows easy access to the relevant components and supports short maintenance and service times – a decisive advantage in intensive use. ■

BIG AND STRONG: XSPLIT XS30-80

Powerful separation technology

With the XSplit XS30-80, Vogelsang is expanding its proven XSplit series with the largest screw press separator of this design to date. The new size is designed specifically for large agricultural businesses and biogas plants with high throughput requirements and achieves a throughput of up to 175 cubic meters per hour. The XSplit XS30-80 thus offers a powerful solution for the reliable solid-liquid separation of slurry and fermentation residues.

The separator is designed for ease of maintenance and short service times. A modular, three-part screen allows only the worn screen segment to be replaced. Since the drive is located behind the solid's outlet, no additional shaft seal is required. Both features reduce spare parts costs and minimize downtime. Compared to conventional press screw separators, service and maintenance work can be carried out much more quickly.

Flexible process adaptation during operation

For maximum flexibility in operation, the XSplit XS30-80 is equipped with the VarioAdjust hydraulic adjustment. The contact pressure at the solid's outlet can be adjusted during operation, allowing users to optimally adjust the separator to different substrates and regulate the dry matter content as required. This ensures consistently good separation results – even with changing media.

With the XSplit XS30-80, Vogelsang is targeting users who need to separate large quantities efficiently and value reliability, low maintenance, and practical adaptation to different operating conditions. ■

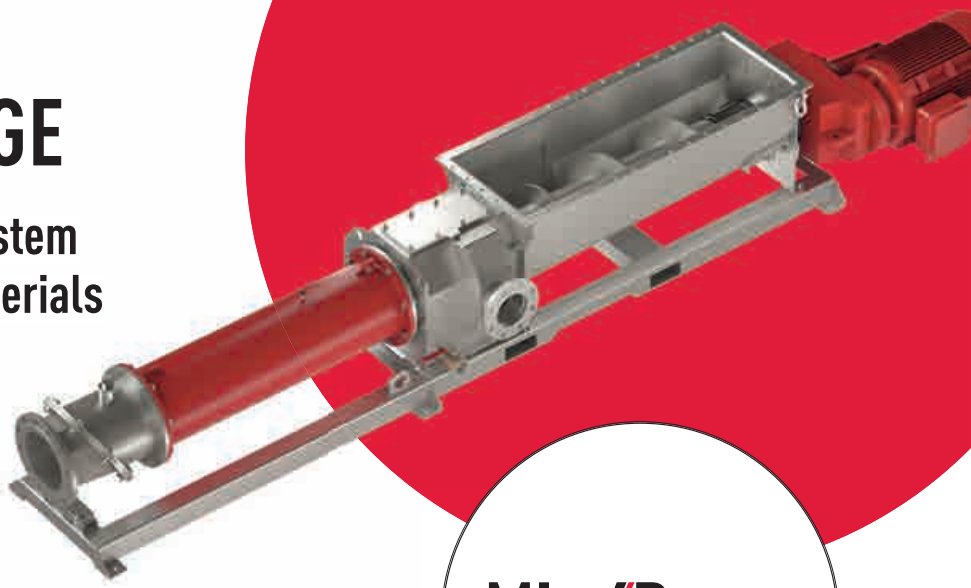
VarioAdjust hydraulic adjustment

XSPLIT XS 30-80 IN A NUTSHELL:

- **Throughput up to 175 m³/h**
- **For large agricultural businesses and biogas plants**
- **VarioAdjust: contact pressure adjustable during operation**
- **Modular screen for quick service**
- **High performance with low maintenance**

COMPACT DOSAGE

MixXPump – Solid dosing system for easy-to-handle input materials



As our first product launch abroad, the MixXPump celebrated its premiere at Ecomondo in Rimini in front of an international audience of experts. With this product, Vogelsang is expanding its biogas portfolio with a compact solids dosing system that is specifically designed for the economical feeding of easy-to-handle input materials such as corn silage or dry animal feed and can be flexibly integrated into different plant concepts.

A key feature of the MixXPump is its flat, space-saving design. This allows it to be used in new plants without the need for costly modifications to the existing plant concept or the design of the solid dosing system. At the same time, it can be easily retrofitted into existing plants without the need for extensive structural changes. The solid material dosing system is therefore a perfect solution for biogas plant owners who want to modernize their feeding technology or increase the efficiency.

HiCone technology for low-wear and constant feeding

The HiCone conical progressive cavity pump is placed at the core of the MixXPump. It conveys the prepared and mashed solids economically and reliably as a suspension into the fermenter. The conical rotor-stator geometry allows for precise adjustment of the conveying elements, compensating for wear. The time-consuming replacement of parts that is necessary with progressive cavity pumps of this size is replaced by simple and quick readjustment.

If replacement of the rotor and stator is nevertheless necessary after a long period of operation, Vogelsang's QuickService concept supports quick and uncomplicated replacement. The downtimes of the solids dosing unit are significantly reduced – an important contribution to a stable and uniform fermentation process. ■

MANY ADVANTAGES

- Compact, low-profile design
- Easy to integrate into existing plant concepts
- Simple retrofitting in existing systems
- Long service life and reduced lifecycle costs
- Fast parts replacement, resulting in minimal downtime

FLEXIBLE LINKAGE

UniSpread in new working width of 12 meters

With the 12-meter version, Vogelsang is expanding the UniSpread series to include a fifth working width. The mechanical engineering company is thus responding to the growing demand for flexible linkages that can be adapted to the field and tanker size. The universal linkage is particularly suitable for farmers and contractors who value precise slurry spreading combined with a high degree of flexibility.

The UniSpread 12-meter is available as a dribble bar or trailing shoe version and can be easily retrofitted regardless of the tanker diameter thanks to the proven folding mechanism. Two side support wheels ensure even ground guidance. And as standard the ExaCut ECL slurry macerator is integrated in the center. Optionally, the linkage can be equipped with other slurry macerators from the series ExaCut and DoubleFlow skids, which halve the row spacing from 25 to 12.5 centimeters. ■

LIGHTWEIGHT ON THE ROAD

LoadMaster pump for mobile use

Low weight and compact installation dimensions are the key features of the LoadMaster pump. The newly constructed pump is specially designed for use on tankers and transport vehicles and is ideal for applications where installation space is limited and every extra kilo counts.

The optimized design ensures smooth operation and supports a reliable, consistent delivery process. The LoadMaster pump thus contributes to comfortable everyday use. At the same time, its compact design facilitates integration into existing vehicle concepts. ■

CLEAN APPLICATION, HEALTHY FEEDING

Why precise trailing shoe technology makes the difference at the Alberts-Tammena organic dairy farm

Clean grassland is the basis for feed quality and animal health at the Alberts-Tammena organic dairy farm in Hinte, Lower Saxony. The farm therefore takes a close look at every step of the process – especially to the slurry spreading. Farm owner farmer Marten Alberts-Tammena: "We have around 150 hectares of grassland and keep 140 dairy cows plus young stock. Every year, our farm produces around 4,500 cubic meters of dairy cattle and cattle manure. As an organic farm, the spreading of the manure is not a casual step for us, but a decisive factor for clean feed, healthy animals, and stable farm operations."

continued on the next page »

"The health of our animals is our top priority. With the new manure spreading technology, it was therefore crucial for us that the grassland remained clean and that there was no feed contamination. Since we started using the BlackBird Pro, this has been reliably ensured."

Marten Alberts-Tammena, farmer and farm owner

The spreading of manure has demands on technology, especially when it comes to grassland. Any contamination has a direct impact on the silage, as the feed comes directly from the field. The technology must therefore spread the manure close to the ground, evenly and in a way that the plants are protected, without contaminating the turf, even in changing wind and weather conditions. Because what remains clean on the field pays off later in the feed – and subsequently in the herd.

Challenge: fiber-rich cattle slurry

Until now, the farm has relied on either a rented tank with a boom or wide distribution with a swivel distributor for manure spreading. However, the very thick, fiber-rich cattle manure pushed the manure spreader to its limits. "In the past, the viscous nature of the manure repeatedly led to malfunctions during spreading. Blockages, uneven distribution, and interruptions in the work process were not uncommon," explains Marten Alberts-Tammena. Added to this was the time-consuming task of cleaning clogged distributor heads directly in the field – making it almost impossible to work effectively. In addition, insufficient cross-distribution led to problems. The aim was therefore to find an application solution that would work without problems despite the challenging medium, distribute the slurry evenly and at the same time consistently avoid feed contamination.

DLG CERTIFICATION CONFIRMS DISTRIBUTION QUALITY

The 15-meter BlackBird Pro trailing shoe linkage was awarded the "DLG-APPROVED" test mark for its high distribution accuracy and easy maintenance. The modules "functionality and work quality" as well as "handling, operation, and maintenance" were evaluated. The slurry spreading system impressed in the test with its very high spreading accuracy, achieving a coefficient of variation of less than two percent. In addition, the testers also highlighted the good accessibility to the cutting tools of the slurry macerator, which makes maintenance easy. In all tests carried out, slurry application and distribution using BlackBird and the slurry macerator ExaCut ECQ achieved the best possible DLG rating.

Search successful: trailing shoe for precise spreading

Against this backdrop, the farm set out to find a new technology. The choice fell on the DLG-certified BlackBird Pro trailing shoe linkage with a working width of 15 meters. It has been in use at the Alberts-Tammena farm since March 2025. The upgrade to the ExaCut ECQ slurry macerator was a decisive factor in the decision. This ensures reliable cutting performance even with the demanding, fiber-rich cattle slurry, thus ensuring uniform spreading without interruptions. "With Vogelsang technology, disruptions during spreading have been eliminated at a stroke," says Marten Alberts-Tammena.

As an additional feature, the farmer uses the DoubleFlow equipment option. The double skid halves the row spacing during slurry spreading from 25 to 12.5 centimeters. Spreading is carried out in strips and close to the ground below the plant stand, which minimizes feed contamination from the outset and additionally reduces emissions. The slurry is distributed particularly evenly, efficiently, and close to the roots. This ensures uniform growth and a high-yield feed harvest. "Both the precise spreading thanks to optimal cross-distribution and the high cutting performance are impressive in use," says

Marten Alberts-Tammena. Odor emissions also remain low and spreading works reliably even in windy or changing weather conditions.

Relief in the field

The use of the BlackBird Pro with DoubleFlow shows how modern spreading technology can improve everyday work in a long term. It can be integrated smoothly into operational processes and works without disruption. This leads to increased efficiency and gives the farm more leeway in its day-to-day business. "Vogelsang technology supports us exactly where it counts," says Marten Alberts-Tammena. ■

Operation
Organic dairy farm Alberts-Tammena

Area
Around 150 hectares of grassland

Livestock
140 dairy cows plus young stock

Manure volume
approx. 4,500 cubic meters per year

Type of manure
Dairy cattle and cattle manure

Spreading technology
Vogelsang BlackBird Pro trailing shoe linkage with a working width of 15 meters

Equipment
ExaCut ECQ slurry macerator, DoubleFlow double skid

Precise distribution, minimal odor emissions: DoubleFlow

FLUSHED AWAY — AND THEN WHAT?

The journey of wastewater

We flush the toilet, let the water run in the shower, or turn on the washing machine. What happens next remains invisible to most of us. But it's worth taking a closer look at the journey of wastewater. Because what enters the sewer system as dirty wastewater ultimately becomes clear, environmentally friendly water that is discharged into rivers or other bodies of water and returned to the natural cycle. Until then, wastewater passes through numerous stations and technically sophisticated processes that are precisely coordinated with each other.

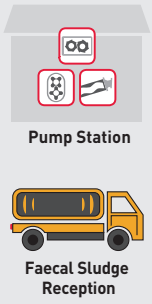
The beginning: collection and transport

It all starts in the sewer system. Wastewater from households, commercial enterprises, and industries flows into underground sewers and pipes, where it is collected in pumping stations and forwarded. This is often where the first challenge arises: wastewater contains more than just organic matter. Hygiene products, textiles, wet wipes, and other solids also repeatedly find their way into the sewer system. The high fiber and impurity content causes clogging, grease buildup, and deposits that clog and damage pumps, fittings, and sewage pipes and block man-sized sewers.

This is why robust, contaminant-resistant technology is required at this stage – both for conveying and grinding problematic contaminants. Only when wastewater is transported smoothly, it can be reliably treated in sewage treatment plants. For this, it undergoes various stages of treatment.

1 Mechanical cleaning: removing coarse material

Mechanical cleaning is the first stage of treatment. Large screens remove coarse components such as plastic or pieces of wood. These are usually shredded, dewatered, and disposed of. Heavy mineral substances such as sand or gravel settle in the sand and grease trap, while fats and oils collect on the surface and are skimmed off. In the subsequent primary clarification

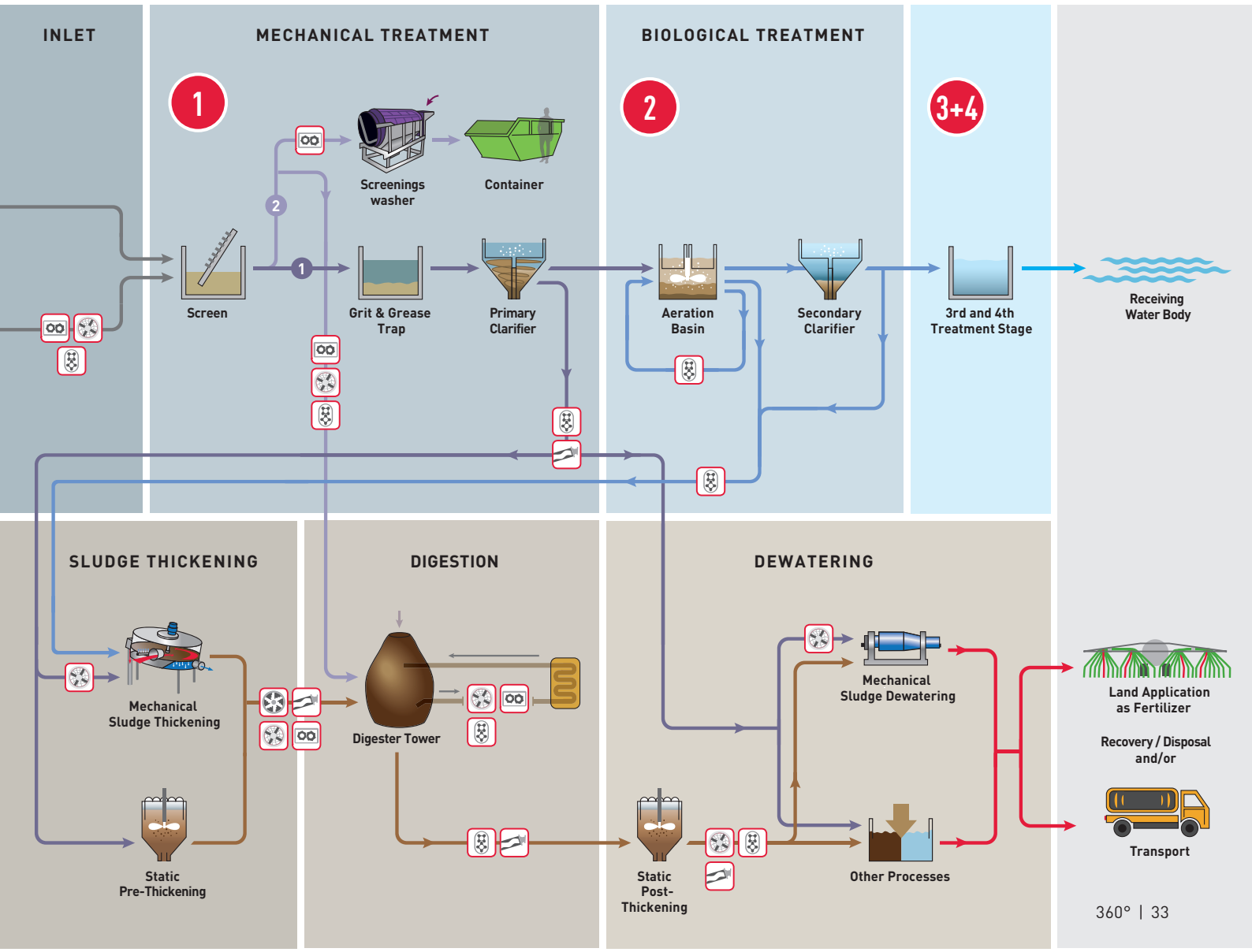


The complete water purification process, including the Vogelsang technology used, at a glance

stage, the water settles in large basins. Settleable substances sink to the bottom and are fed into a displacement pump, which transports this so-called primary sludge for further treatment.

2 Biological treatment: Microorganisms take over

After mechanical pre-treatment, the heart of the sewage treatment plant comes into play: biological treatment. While the sludge is constantly circulated in the aeration tank, billions of microorganisms work hard. They break down the organic load. In the process, sludge is continuously removed and reintroduced to maintain a stable bacteria. To ensure that these processes run optimally and the bacteria function properly, the oxygen content and supply, temperature, and retention time must be precisely coordinated.



In the foreground: Water is aerated in aeration basins.
In the background: Three digesters.

The sludge then enters the secondary clarifier. Here, the so-called flocs settle as activated sludge. These are complex structures made up of inorganic, organic, and biological components that have formed in the aeration tank. Depending on the design of the wastewater treatment plant, this sludge is pumped for further treatment or dewatered and disposed of.

In the first two stages, solids and carbon compounds are thus removed as far as possible.

3+4 Third and fourth treatment stages: the fine tuning

Depending on the size of the plant and legal requirements, further purification measures may follow. In the third stage, nutrients such as nitrogen and phosphates are removed, and any remaining suspended solids are filtered out. Bacteria convert the nitrogen into harmless gaseous nitrogen in complex and well-monitored process steps, while the addition of a so-called precipitant converts phosphates into a water-insoluble compound. These also settle at the bottom of the tank as sludge, which is further processed.

The fourth stage of treatment is becoming increasingly important and was tightened up last year with the new edition of the EU Municipal Wastewater Directive (KARL). This involves the elimination of trace substances such as drug residues or microplastics. Strong oxidizing agents are used here to destroy the trace substances in the wastewater. Other systems use activated carbon to absorb the pollutants or, alternatively, very fine filters to remove even the smallest remaining particles.

In the end, a successful result: water that meets strict environmental requirements and can be discharged into natural waters without hesitation.

Parallel process: sludge treatment and dewatering

While the water is being purified step by step, an equally important and complex process is running in parallel: sludge treatment and dewatering. The sludge produced during primary clarification and biological treatment is first thickened mechanically to reduce its volume. It is then transported to the digestion tower using pumping and grinding technology. Since the sludge tends to form floating layers and so-called "braids". These structures that can be as long as an arm and as thick as a leg are made of tangled fibers and solids. To prevent them the use of wet macerators is highly recommended.

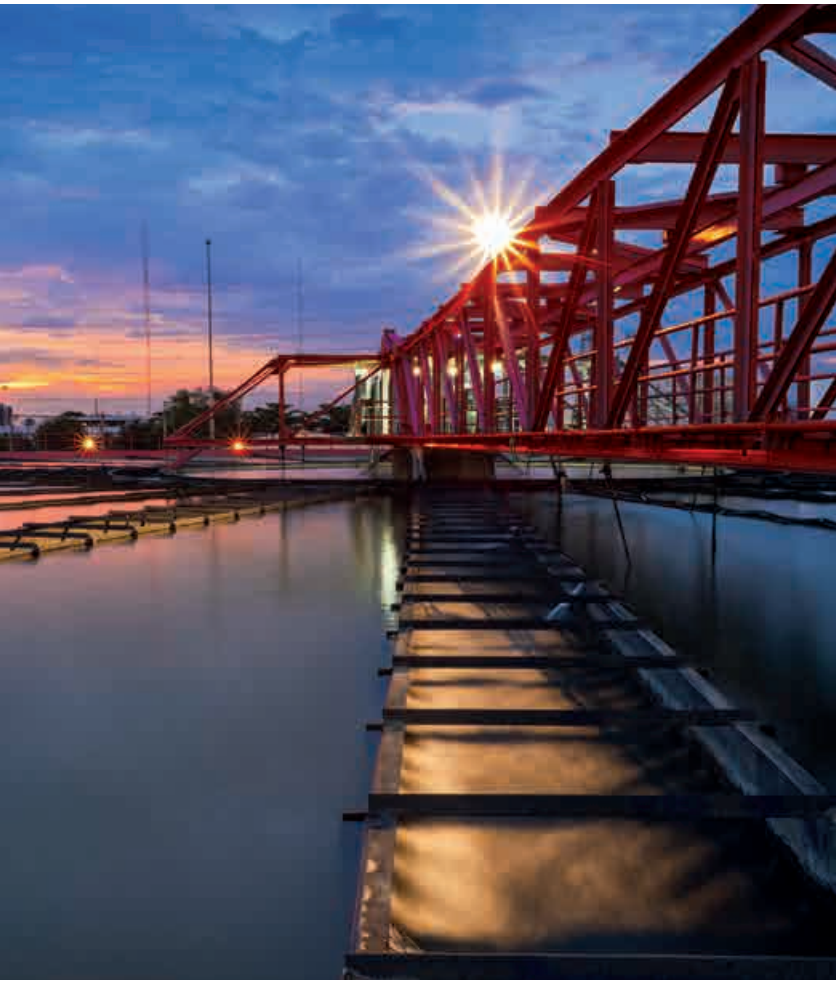
In the digestion tower, the sludge is stabilized under anaerobic conditions. Like a biogas plant, bacteria convert the organic and biological components contained in the sludge into so-called digester gas in the absence of oxygen. This gas is both combustible and energy-rich and is usually used to supply the wastewater treatment plant with electricity and heat.

Dewatering of the digested sludge

Digestion is followed by sludge dewatering. The aim of this is to further reduce the water content of the digested sludge. The reason: the costs for transporting and disposing of the digested sludge are calculated by weight. Separating out tons of water can significantly reduce these costs.

Reliable grinding and pumping systems are also essential for achieving the desired high degree of dewatering. The technology used must be low-wear, energy-efficient, and easy to maintain, while at the same time ensuring a constant volume flow so that the sludge can be dewatered efficiently.

The clear, biologically purified water flows out of the secondary clarifier.



Evening atmosphere at the sewage treatment plant

Recycling of sewage sludge

The dewatered sludge, also known as sewage sludge, must be disposed of at a cost. Depending on its quality and legal requirements, it can be used, for example, as fertilizer in agriculture. As a rule, it is thermally recycled. This means that it is incinerated in special furnaces or used in cement production or waste incineration plants. Sewage sludge humification plants take a different approach. Here, sewage sludge is converted into humus-like soil over a period of several years.

When everything works together

Overall, these treatment processes show that it is the finely tuned interaction of mechanics, biology, and process control that turns polluted wastewater back into clean, environmentally friendly water. Robust pump and grinding technology play a key role in ensuring that these processes remain stable and run efficiently.

Would you like to learn more about Vogelsang's solution-oriented technology for treating and pumping wastewater and sludge? You can find more information here!

GOOD SEPARATION IS HALF THE BATTLE

More efficient biogas plants thanks to separation

Higher energy costs, stricter regulations, for example for the storage and fertilization with farm manure, and growing pressure to improve efficiency characterize the everyday life of many farmers. Those who operate a biogas plant in addition to arable farming or livestock breeding face further challenges. This is because the requirements for biogas plants are increasing, for example due to the need for greater flexibility. In addition comes the uncertain political conditions and the central question of what role biogas should play in the renewable energy mix in the future. Biogas is an important, stable pillar of gas and electricity generation. Efficient operation is key to ensuring the long-term profitability of a biogas plant. Investments in the right technology must therefore be carefully considered – because there is often more to consider than meets the eye when it comes to fermenters, final storage, and application technology.

One frequently underestimated lever for optimization is separation—for example, of the digestate. This is separated into a liquid and a solid phase, i.e., into a thin liquid and a solid component, both of which are easy to handle. Separation makes it possible to reuse both phases in a targeted manner. After all, those who not only "dispose" of the digestate, but also use it in a targeted manner, tap into a noticeable potential for efficiency.

Reduce storage volume, cut costs

A key advantage of separation is the significant reduction in the storage volume required. While unseparated digestate must be stored entirely in liquid-tight storage facilities, after separation only the thin liquid phase ends up in the digestate storage facility. Separating the digestate into a solid and a liquid phase thus reduces the volume of liquid digestate by up to 25 percent. This is because the separated solids do not require liquid-tight storage, but can be stored flexibly and cost-effectively, for example on a silo plate or in simple storage solutions.

This is a decisive factor, especially in times of high construction and material costs due to increased requirements: Liquid storage facilities can be smaller in size, significantly reducing the burden on existing capacities. This lowers investment costs and creates more leeway in plant operation.

Video "Creating space in slurry storage"

Clean application – effective plant protection

Separation also offers several advantages when spreading fermentation residues as fertilizer: Due to its lower fiber content, the liquid phase is significantly thinner and can be spread precisely and close to the ground using modern spreading technology such as dribble bar or trailing shoe systems. At the same

AT A GLANCE: WHAT CAN BE OPTIMIZED BY SEPARATION AT A BIOGAS PLANT

- Less storage capacity required for liquid fermentation residues
- More cost-effective and easier transport of separated solids
- Less contamination of plants and feed and less damage from corrosive substances when using the digestate as fertilizer
- Reduced running times and power consumption of agitators and pumps due to lower viscosity in the fermenter
- Higher gas yield due to longer retention time in the fermenter

time, it penetrates the soil more quickly. This reduces contamination of the plants – and thus of the feed on grassland – minimizes burn damage and reduces emissions during application. The nutrients are placed directly on the plant and go exactly where they are needed. The improved nutrient uptake also has a positive effect on crop yields and contributes to overall soil health.

Video "Vogelsang XSplit in action"

In addition, the solid fermentation residues open additional uses. They can be stored flexibly or applied in a targeted manner. Thanks to their high organic matter content, they are suitable as long-term fertilizers and make a valuable contribution to soil improvement. In addition, the pure solids can be transported more cost-effectively – a clear economic advantage, especially for inter-farm utilization.

Separation as a tool for process optimization

Beyond storage and spreading, the fermentation process can be optimized by means of separation. Its benefits are evident, for example, when the solids remain in the fermenter for too short a time: if biogas plants remove solids too early, part of their energy potential remains unused – with a direct impact on gas yield. Separation provides a targeted solution to this problem. The suspension is separated, the liquid phase is separated and fed into the post-fermenter, for example, while the solid components are returned to the fermenter. This extends the residence time of the solids, their energy potential is better exploited, and the gas yield is increased. The overall efficiency of gas production increases.

Find out more about Vogelsang's separation technology here

Other plants, on the other hand, struggle with excessive viscosity in the fermenter: thick suspensions make mixing difficult, increase the power consumption of the agitators, and have a negative impact on the overall yield of the biogas plant. As a result, internal power consumption and operating costs rise. What is sometimes hardly noticeable in daily operation adds up to considerable additional costs over time. A press screw separator can be used to separate the solids in a targeted manner. The thin liquid phase is returned to the fermenter, which reduces the viscosity there. Pumps and agitators require less power and running times can be reduced. This not only lowers electricity consumption but also wear and tear – and thus the maintenance and operating costs of the entire plant.

Setting up biogas plants to be economical and future-proof

Separation opens many opportunities for plant optimization in everyday operations. It can have a profound impact on plant operations – and that is precisely where its potential lies: Separating the digestate reduces storage and spreading costs, improves fertilizer efficiency, optimizes processes in the fermenter, and increases gas yield. For many biogas plants, it is therefore a key component in sustainably improving economic efficiency and futureproofing. ■

NEVER AGAIN DOWNTIME IN SUGAR PRODUCTION

RedUnit industrial grinder solves beet top problem at Pfeifer & Langen

THE BEET TOP PROBLEM

Whether liquid sugar, rock sugar, white and brown sugar, or other specialty sugars: sugar manufacturer Pfeifer & Langen makes life sweet. For over 155 years, the company has been producing a wide variety of sugar types for industry and retail at its locations across Europe. By-products are utilized regionally as animal feed or in energy production. The focus is on producing sugar from regionally grown beets. The company operates year-round for this purpose. During the peak season, known as the campaign period from September to January, the plant in Euskirchen, North Rhine-Westphalia, alone processes around 11,000 tons of sugar beets daily—24 hours a day, 7 days a week. "Technological sugar production cannot tolerate any interruptions, as the raw material has a limited shelf life. That is why beet processing runs around the clock," explains Christof Ruhrmann, Head of Production, Primary Production, at the Pfeifer & Langen plant in Euskirchen.

Continuous operation places high demands on the machinery and technologies used. Malfunctions and unplanned downtime are disastrous, as they entail significant costs and time losses. Especially in primary production, the machines and systems run at full capacity during the harvest season and are under constant strain.

Beet processing in primary production

To explain: The primary processing begins where the beets are fed into the conveyor system. After being delivered to the plant, they undergo intensive cleaning in a washing line. Stones sink due to gravity, while leaves and tops float along with the water flow. Special leaf catchers filter out the plant material and discharge it into a hopper. The tops then flow by gravity through a drop chute into the next stage of processing. The washing tunnel system is designed with redundancy, ensuring the process can continue smoothly even in the event of malfunctions. 24/7 operation is guaranteed.

Challenge: More sugar beet leaves in the system

However, sugar beet tops have increasingly become a challenge in recent years. This is because longer growing seasons and adapted cultivation methods mean that more tops enter the process, especially toward the end of the campaign. These beet tops must be reliably discharged, chopped, and dewatered. This allows them to be efficiently transported and further utilized, for example as feedstock for biogas plants.
The increasing volumes of tops pushed the flail chopper previously used at the Euskirchen plant to its limits. Ruhrmann: "We had to clear blockages in the system every week. It often stood idle for up to an hour because the shredder was completely clogged." Due to its size, the shredder also had to be set up separately under the washing line, and the beet tops had to be transported there via a conveyor belt.

THE SOLUTION

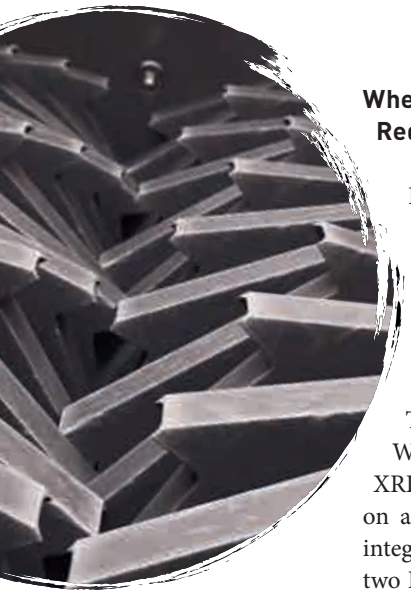
AT A GLANCE: THE RED UNIT IN ACTION

Application: Grinding of discharged sugar beet tops in the washing line

Installation: Integrated directly into the processing line at the drop chute

Special features:
- Redundant design of the grinding technology
- Compact design
- Large maintenance hatches for easy access to the ripper rotors
- Higher throughput with lower power consumption

Customer benefits:
- Reliable grinding of beet tops
- High process reliability
- Continuous 24/7 production throughout the entire beet campaign



Even iron meets its match: the inner workings of the RedUnit

Where the beet tops accumulate: RedUnit in action

In search of a more reliable solution, the Euskirchen team consulted with other Pfeifer & Langen plants. At the production site in Jülich, North Rhine-Westphalia, two twin-shaft shredders from Vogelsang's RedUnit series have been in successful operation since 2023—so far without the need for any part replacements. The recommendation was therefore a clear-cut. With two industrial shredders from the RedUnit XRL150-500QD series, Pfeifer & Langen now relies on a grinding solution at its Euskirchen plant that integrates perfectly into the existing washing line. The two RedUnit industrial grinders are installed directly at the end of the drop chute and are thus in operation exactly where the vegetation accumulates. Thanks to the compact design, Ruhrmann and his team were able to completely do without conveyor belts. Another advantage: the shredding system is now set up with redundancy. If one RedUnit machine fails, 24/7 operation continues.

Process reliability through a maintenance-friendly, high-performance solution

Since commissioning in October 2025, the beet top shredding process has run virtually trouble-free. During the entire 2025/2026 campaign, there was only one blockage, caused by a thick branch. Since the large maintenance hatches provided direct and safe access to the powerful ripper rotors, the blockage was quickly and easily cleared. After just about 15 minutes, the affected RedUnit was back in operation. The high reliability of the shredding system has convinced Ruhrmann: "The RedUnit just runs. We don't have to worry about it. One less thing to deal with." In addition, the two installed twin-shaft grinders achieve a higher throughput than the flail mower previously used—while consuming less power.

With the RedUnit, Pfeifer & Langen in Euskirchen has now integrated the grinding of roots directly into the production process, thereby achieving a sustainable optimization of this process step. In a production environment that cannot tolerate downtime, it delivers exactly what matters most: reliability. ■

The Pfeifer & Langen factory in Euskirchen

FOR DECADES, RIGHT ON SCHEDULE

ICE Depot Hamburg-Langenfelde: Where service makes the difference

When trains roll into the ICE Depot in Hamburg-Langenfelde for cleaning, maintenance, and repairs, every minute counts. Maintenance windows are tightly scheduled, and processes are precisely planned – downtime is not an option. What works reliably behind the scenes is crucial for stable rail operations.

The fact that these processes have been running smoothly for decades is no coincidence. It is the result of a successful and close partnership: Vogelsang and Deutsche Bahn AG have been working together for 30 years now, and the company has been supporting the plant in Langenfelde for 23 years.

What sets this partnership apart? Not just the technology—but mutual trust and Vogelsang's commitment to viewing service as a lasting responsibility and the cornerstone of the collaboration.

From contract award to long-standing partnership

Hamburg-Langenfelde is one of Deutsche Bahn's central ICE depots. Here, trains ranging from the ICE 1 to the latest ICE L are maintained, facilities are modernized, and the depot's capacity is continuously expanded. The demands are correspondingly high.

In 2003, the collaboration with the North German facility began with a bid for fresh water supply and wastewater disposal from passenger trains. "We had submitted the best bid, both technically and economically, and were awarded the contract. This continued with the tenders for the subsequent systems. Thus, a single contract gave rise to a partnership that has now lasted for over two decades," explains Alexander Priebe, Head of Sales DACH, Business Unit Infrastructure. Priebe is familiar with the systems not only from a sales perspective. For 14 years, he played a key role in the development of the supply and disposal systems. For over five years now, he has been overseeing railway projects from a sales perspective, combining detailed technical knowledge with operational implementation.

Since the start of the collaboration, the project teams have continuously expanded and modernized the systems at the rail depot, adapting them to current requirements. Today, the site comprises several installations from different project phases.

Reliability as an operational factor

In the railway sector, particularly strict standards apply; systems must function reliably under continuous load. Maintenance windows are tightly scheduled, and delays have an immediate impact on operational processes.

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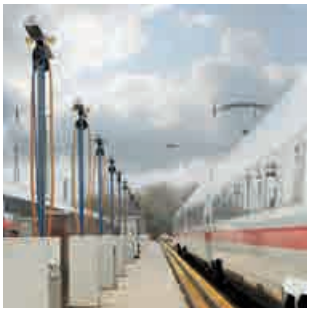
The drip-free extraction coupling in use on an ICE train

Everything goes quickly during the pit stop in Hamburg-Langenfelde – thanks to technology made by Vogelsang



TUnit

CleanUnit

VacUnit

Added to this are Deutsche Bahn's clear expectations for the collaboration: consulting for project managers at the highest technical level, reliable project implementation in accordance with set deadlines, contact persons available at all times, short response times, and a fast and reliable supply of spare parts. "As part of critical infrastructure, Deutsche Bahn naturally places very high demands on technology and its reliability. The fact that our solutions have been in use for so many years and continue to impress time and again confirms our own commitment to quality, durability, and a strong commitment to service," says Michael Brinkmann, Chief Sales Officer at Vogelsang.

From a technical standpoint, the TUnit is the heart of the systems in Langenfelde. For over 25 years, this solution has set the standard for wastewater disposal and fresh water supply for rail vehicles and has become established throughout Europe. In Langenfelde, too, the system has proven itself under continuous use. But it is not just the technical aspects that matter." Thanks to the reliability of the products, but also because of the smooth coordination with the project managers, we have received further orders, such as a temporary system with ReelUnits and the replacement of the CleanUnits after they exceeded their economic service life," says Priebe. The continuous support, regular maintenance, and proactive modernization of the systems have played a key role in turning individual projects into a long-term partnership and laying the foundation for new orders. This demonstrates what partnership truly means: not only delivering high-performance systems but also working together on a basis of trust. Priebe adds: "We know each other and understand how the other works. And as a team, we all pursue the common goal of ensuring that everything runs smoothly and with as little red tape as possible."

Mobile ReelUnit

HAMBURG-LANGENFELDE – PROJECT OVERVIEW

2003

Commissioning of the first systems with one VacUnit, 30 TUnits, and nine CleanUnits

2014

Installation of the second system with one VacUnit, 28 TUnits, and seven CleanUnits

2017

Commissioning of the third system with one VacUnit, 28 TUnits, and seven CleanUnits; construction of an additional temporary system with four mobile ReelUnits for the supply and disposal of trains on two adjacent tracks, which is still in use today

"In the railway sector, it's not enough to develop technically sound solutions. What really matters is a service that operates reliably at the highest level for decades. Only when customers can count on us to be available and respond quickly can we build the trust that makes new projects possible. It is precisely this mindset that shapes our work in Langenfelde."

Alexander Priebe, Head of Sales DACH, Infrastructure Business Unit

More than just a job: the people behind the project

What matters most, therefore, are the faces at Vogelsang: knowledgeable and dedicated professionals who understand the railway's requirements, take them seriously, and implement them in daily operations. An essential part of this collaboration is the after-sales department and its staff. One such person is Christian Grünloh, who helped build and shape the division over the past 15 years. Today, he brings his experience with the systems to the sales department. What sets his work apart, however, is not only his technical expertise but also his extraordinary dedication: For many years now, he has been on call outside of regular working hours and is always a reliable point of contact for questions or malfunctions.

Björn Polle, who has been the After-Sales Team Leader for about a year, works with his team to ensure that maintenance work is carried out on schedule, that system conditions are regularly checked, and that necessary measures are taken promptly. When needed, he'll even grab his toolbox and head out on his own to various locations. For example, between the holidays at the end of last year, he traveled hundreds of kilometers to repair a system. "It is precisely because of employees like these—who understand what the customer needs and demonstrate a level of dedication far beyond what is expected—that projects like the plant in Langenfelde run so smoothly. In the end, our employees' commitment is what determines our reputation in the industry," emphasizes Priebe.

With the continued expansion of the ICE halls, new waste disposal facilities starting in 2027, and additional projects, Langenfelde remains a central pillar in the collaboration with Deutsche Bahn, demonstrating that those who deliver high-quality technology and consistently excellent service are seen not just as suppliers, but as partners. From the management's perspective, this partnership is also of central importance. Brinkmann: "The long-standing projects with Deutsche Bahn make it clear that technical quality alone is not enough. What is crucial is a shared understanding of processes, availability, and further development. That is exactly what makes a true partnership." ■

2024

Modernization of the first system through replacement of the CleanUnits

To be continued

Further projects have already been commissioned: a fourth system with one VacUnit, 56 TUnits, and seven CleanUnits, as well as one VacUnit, 38 ReelUnits, and seven CleanUnits in the ICE hall. This demonstrates that the plant in Langenfelde continues to rely on Vogelsang as a reliable and competent partner.

WHEN EVERY MINUTE COUNTS

VOGELSANG IS PLACING GREATER FOCUS ON DISASTER CONTROL

Extreme weather events such as heavy rain or flooding are occurring with increasing frequency. As a result of climate change and rising average temperatures, extreme weather events like hurricanes, heat waves, floods, droughts, and wildfires are on the rise. This is also confirmed by the annual report of the World Weather Attribution (WWA). Scientists from the research initiative have been analyzing the impact of climate change on extreme weather events worldwide[1] for the past eleven years. For the year 2025, WWA scientists recorded 157 extreme weather events worldwide, including 49 floods, 49 heat waves, and 38 storms.

Acting in solidarity

Events such as the catastrophic flooding in June 2021, which hit the Ahr Valley in North Rhine-Westphalia and Rhineland-Palatinate particularly hard, or the flooding in December 2023 in Lower Saxony, posed significant challenges for emergency responders, local authorities, and operators of critical infrastructure. Operations had to be coordinated within a very short time, emergencies prioritized, and logistical measures taken to pump out water as efficiently as possible, lower water levels, and limit damage. Harald Vogelsang, Managing Director of Vogelsang, recalls: "When pumping stations failed during the flooding in Lower Saxony and the already critical river water level continued to rise, it was immediately clear to us that, as a local company, we had to help. In such critical situations, we must stick together and act in solidarity. The energetic efforts of the local responders were admirable."

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[1] Events are included in the WWA list only if a certain threshold is exceeded: for example, if there are more than 100 fatalities, more than one million people affected, or if a state of emergency or disaster is declared at the national or regional level.

Michael Brinkmann, Chief Sales Officer at Vogelsang, adds: “Many of our employees are active in the volunteer fire department. They served as our direct link to quickly and easily support the emergency responders with mobile pumping systems and a pump trailer. The goal was to accelerate the pumping out and transfer of water and prevent the situation from worsening further.”

Assistance in Austria

In September 2024, when severe storms flooded parts of Lower Austria, mobile pump solutions from Vogelsang were also deployed. With a pump trailer and a large mobile pump unit, the company supported flood control efforts on site. In close coordination with the local fire departments, the pumps were deployed exactly where they were most urgently needed: to pump out basements and buildings or to lower a significantly elevated groundwater level.

A key advantage: The Austrian Vogelsang branch was itself barely affected by the flooding and was able to respond quickly. Employees delivered the pumping equipment directly to the sites, trained the fire departments in safe operation, and supported the operations. This allowed the situation in particularly hard-hit areas to be gradually brought under control.

What pumps must do during disaster control

These severe weather disasters make it clear once again: When rivers overflow their banks, pumping stations fail, or basements flood, the extent of the damage is determined in a matter of minutes. It is precisely in these moments that quick decisions, coordinated actions, and technology ready for immediate deployment are required. Floods, heavy rain, or other disaster situations present special challenges:

- **rapid deployment** – without lengthy installation times
- **high flow rates** even with media containing high levels of solids, such as sludge
- **flexible drive options** for locations without power supply
- **robust construction** for continuous operation under extreme conditions
- **easy handling,** even under time pressure

Deployment in Lower Austria

Flood relief efforts in northwestern Germany

The VX model: powerful in disaster

ROTARY LOBE PUMPS IN DISASTER CONTROL

In the event of a disaster, Vogelsang provides rapidly deployable pumping solutions based on rotary lobe pumps. While these are not yet standard in disaster response, they offer enormous advantages over the centrifugal pumps typically used, particularly in emergency and disaster operations:

1. Pumping viscous media:

Vogelsang rotary lobe pumps are positive displacement pumps. Due to their operating principle, they reliably pump even abrasive, solids-laden media—such as thick slurry or oil-containing water-slurry mixtures—without clogging or blocking.

2. Constant flow rate:

Rotary lobe pumps deliver a defined volume per revolution. This enables them to generate a constant, high-pressure flow, even with viscous or contaminated fluids and under varying conditions.

3. Robust and flexible:

Rotary lobe pumps are self-priming, resistant to dry running, and, depending on the configuration, can deliver a medium consistently even over long hose runs and elevation differences. By reversing the flow direction, they can be used flexibly.

Pump solutions must be mobile, robust, and ready for immediate use, often under difficult conditions and without existing infrastructure. This is exactly where Vogelsang's mobile pump systems come into play. They are based on rotary lobe pumps and are designed to operate reliably even under difficult conditions. Different designs and drive types enable use in virtually any location—even where neither electricity nor fixed infrastructure is available. At the same time, the systems can be flexibly configured and adapted to the specific application. This has also convinced fire departments in Austria, which have signed a five-year framework agreement with Vogelsang for the supply of mobile pump technology for disaster response. Further information on this can be found in the News section on page 21 of this issue.

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"DISASTER CONTROL IS AN ONGOING COMMITMENT FOR US"

Michael Brinkmann, CSO at Vogelsang, on the motivations and the decision to place greater emphasis on disaster response.

Mr. Brinkmann, why is Vogelsang placing greater emphasis on the field of disaster management?

Extreme weather events are noticeably on the rise. We don't just read about this in the media; we also experience it firsthand in our own lives. At the same time, we're receiving more requests for mobile pump solutions in the event of flooding. As the inventors of the rotary lobe pump with elastomer-coated lobes and with decades of experience, it makes perfect sense for us to apply this expertise specifically to disaster response and to further develop it. For us, disaster control is an ongoing commitment.

What is particularly important in the event of a disaster, such as flooding?

Time is the decisive factor. Technology must be immediately available, easy to use, and to 100 percent reliable. At the same time, conditions are often difficult: no power, limited space, and high stress. Our mobile pumping solutions are designed precisely for this.

What specifically can Vogelsang contribute?

We provide flexible pump technology that has already proven itself in real-world operations. In addition, we support emergency responders on-site, contribute our expertise, and ensure that the technology can be deployed quickly and safely. Our mission is to help where support is truly needed.

Thank you very much for the interview!

INTERSCHUTZ

VOGELSANG AT INTERSCHUTZ

The Trade fair for emergency services

From June 1 to 6, Vogelsang will present its portfolio for disaster control at Interschutz in Hanover, the leading international trade fair for fire and disaster response, rescue, and safety: **Hall 17, Booth D31.**

Responsibility with foresight

Harald Vogelsang: "Disaster control is more than just providing technology. As a family-owned company, it is a major and personal priority for us to support the work of the fire department not only in exceptional situations such as flooding. Because we bear responsibility toward the emergency responders, the affected people, and our own employees. Many of our employees are active in the volunteer fire department. By granting them time off for these assignments, we want to encourage them in this important work."

Disaster control is a comprehensive, ongoing commitment for the company. That is why Vogelsang will continue to strengthen this area in the future – with practical solutions, close collaboration with emergency responders, and a clear commitment to social responsibility. Because when every minute counts, being prepared is what matters most. ■

Thanks to the spontaneous help, Vogelsang is now an official "partner of the fire department".

Steve Alliston

Founder and Managing Director

The company

Loyalty Connections
Margate, England

Services

- Travel organization
- Rental of minibuses and larger coaches for group travel
- Chauffeur services, airport transfers, school transport

Vogelsang technology in use

RoadPump Eco wastewater disposal system
with CollectingMax

Purpose of the product

Simple and reliable emptying of coach sewage tanks

As part of our testimonial campaign, we introduce yet another satisfied Vogelsang customer. This time, he comes from Margate in the southeast of England.

"I CHOSE VOGELSANG

because we needed a mobile system that would allow us to empty the sewage tanks of our buses safely, cleanly, and cost-effectively."

Steve Alliston, founder and managing director of Loyalty Connections

My professional career began as a market vendor in the family business. In 2008, I founded a private car rental company. As demand for minibuses and larger vehicles increased, I acquired the necessary licenses and founded a coach company in the same year. My first coach was a Volvo B10M. Today, Loyalty Connections' fleet comprises 21 vehicles.

Due to Loyalty Connections' relocation, we were faced with the challenge of finding our own solution for emptying the waste tanks of our coaches. Previously, we had regularly driven to Heathrow Airport to use the emptying facilities there. However, this was time-consuming and involved high costs.

As we were unable to install a permanent emptying facility at our new location, we looked for a completely independent system that did not require any construction work. At the same time, it was important to us not to outsource the emptying of the buses. We therefore opted for a RoadPump Eco with CollectingMax and a mobile collection tank. As both components are transportable, we could easily take them with us if we moved again.

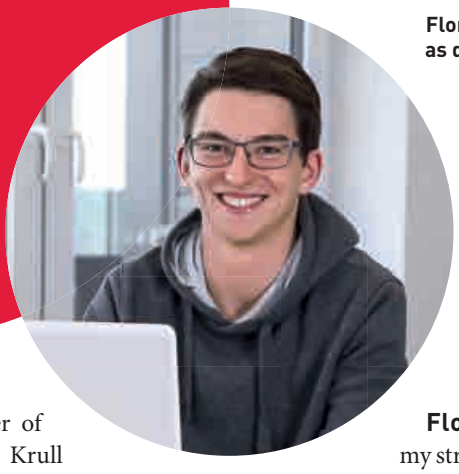
In everyday use, the RoadPump has proven to be robust and reliable: it is insensitive to dry running and foreign matter, is easy to operate, and can be flexibly integrated into our processes. The system is simple in design and designed for daily use. Thanks to its low maintenance requirements, it is always reliably available – a crucial point for our ongoing operations. The wastewater is hygienically removed in conjunction with the CollectingMax mobile collection system. This consists of a large collection tray designed to allow rapid flow drainage and prevent splashing from toilet wastewater.

The RoadPump Eco now enables us to empty the wastewater tanks of our coaches hygienically and quickly directly on our premises. Emptying the mobile collection tank by an external service provider costs us only around £120. This is necessary about four times a year.

Overall, the RoadPump is a safe, clean, and easy-to-use solution that we can rely on in our daily operations. It does exactly what we wanted it to do: provide simple, independent, and reliable emptying of our coaches' waste tanks. ■

FROM DUAL STUDENT TO TEAM HEAD

Interview with Florian Krull, Team Head R&D Pump Technology



Florian in his beginnings as dual student

In the summer of 2017, Florian Krull began his dual degree program in mechanical engineering at Vogelsang. Today, eight years later, he leads the R&D Pump Technology team. We spoke with him about his career at Vogelsang, the feeling of seeing his own ideas incorporated into pump systems, and what he particularly enjoys about his current position

360°: Take us back to the beginning: What was your experience like when you first joined Vogelsang?

Florian: The first few weeks were already very hands-on. I worked in assembly and manufacturing, where I got to know the products and processes. This helped me develop a good understanding of how everything fits together in the company. At the same time, I familiarized myself with the programs and processes and was able to take on tasks in day-to-day operations relatively quickly. It was particularly helpful that another dual student and three apprentices started in my department at the same time as me. Thanks to that I became a good network for exchanging ideas right from the start. Overall, I felt very welcome right away.

The dual study program was clearly structured: theory and practice alternated, mostly in three-month cycles. This close integration helped me apply what I learned in school directly and, conversely, bring experiences from day-to-day work back to the university.

360°: What interested you in mechanical engineering back then?

Florian: Mechanical engineering was a good fit for my strengths and interests from my school days. Math, physics, chemistry – those subjects came naturally to me. Of course, you only really realize what's involved once you're in the program. But that's exactly what I find exciting, to understand how theoretical principles are turned into a functioning product for our customers.

360°: Why did you choose Vogelsang as your industry partner?

Florian: Vogelsang offered exactly what I was looking for: a dual degree program in mechanical engineering with a focus on machine and plant design. A strong practical focus was also important to me. I didn't just want "theory"; I wanted to be actively involved in shaping things. The fact that Vogelsang advertised this and that it was confirmed right from the start immediately convinced me. Plus, the company's location is close to my hometown, which was an additional bonus.

360°: How did you find your time studying at the company? Is there a moment you particularly like to look back on?

Florian: During the practical phases, the support from the instructors was very helpful. For me, those were Katrin Menke and Thomas Hinners. We also had dual students in the company as mentors who were two semesters ahead of us in their studies and from whose experience we could learn. All in all, during my time as a student, I felt that Vogelsang wasn't just a practical partner, but truly actively guided and supported me. »

The team is working on the pump technology of the future.

Florian's first project management: the pump LoadMaster

One highlight for me was an experience between two practical phases. I had designed a pump unit with an IQ pump and a diesel engine, and when I returned to the company after the theory block, that exact unit had been built and was already in use in the development department. That was a real motivational boost for me because I realized that my work wasn't just "on paper," but was truly relevant and could ultimately be used in a pump system.

360°: What happened next for you at Vogelsang after you graduated with a "Bachelor of Engineering" in the summer of 2021? Are there any projects you particularly enjoy looking back on?

Florian: As a design engineer, I joined various projects and took on different tasks in the areas of design and testing. In early 2023, I took on my first project management role, leading a project for the LoadMaster pump. Since I didn't know much about the product at first, I spent a lot of time getting up to speed. Where are we in the project? What has already been decided? In the process, I also learned a great deal about customer communication and sales. At first, prioritization was a challenge for me. Which tasks should I tackle when, what is critical, and what can wait? Added to this were scheduling and close coordination with interfaces such as production and production preparation. Lars Mester, from whom I took over the project and who was the team leader at the time, supported me and helped me get up to speed step by step. It was an intense but very educational start.

In addition to the LoadMaster project, a mobile pump unit with a diesel engine was another exciting topic. The goal was to define a standard for applications such as emergency pumps. Projects like these train you to see how products are used in practice and what requirements arise from that. Since October 2025, I have been the Team Head R&D Pump Technology and am responsible for a team of nine people.

360°: How has Vogelsang supported your professional development along this path?

Florian: Basically, the support started with the dual degree program. Even after that, I always had the opportunity to work on exciting tasks, prove myself, and grow. It was particularly important and wonderful for me that the company and my managers placed their trust in me to lead projects independently and take over as team leader last year.

360°: What have you set out to achieve in your role as team leader? And what demands does the role entail?

Florian: It was important to me that the transition from the previous team leader, Michael Rolfes, to me went as smoothly as possible. So, we looked at various points together, such as which structures work and which regular meetings make sense. I deliberately kept those things in place.

At the same time, the new role means delving even deeper into the technical aspects. From an organizational standpoint, the amount of coordination and time management has increased significantly. I'm also more involved in strategic decisions and work even more closely with various departments, whether it's with production, other team leads, or on cross-functional topics. I really enjoy this because it allows me to gain a broader perspective of the company and actively shape its direction.

In terms of content, we currently have several projects on our roadmap, such as the further development of the HiCone. This involves, among other things, new sizes and targeted cost optimizations. These are exactly the kinds of topics that I find exciting – they're technically challenging and strategically relevant at the same time.

360°: What is important to you when working with your team, and how do you experience the collaboration?

Florian: The teamwork and atmosphere in the team are great. It's important to me that it stays that way. I feel like everyone, including me, enjoys coming to work. It's also important to me to always be available and present. I make a point of walking through the offices to stay in touch with team members.

360°: After more than eight years with the company – what makes Vogelsang special to you as an employer?

Florian: For me, it's two things: the work environment and the variety of tasks. Whether it's design, testing, and supporting installation at the customer's site, or assisting with assembly. My day-to-day work is just as varied and exciting. I often start my mornings by answering technical questions about configurations or designs that come in from the sales team or internal sales. Then we have project meetings. What happened last week? What's next? What new insights have emerged? In between, we tackle topics like outsourcing, coordination with other departments, or strategic questions. It's incredibly diverse and that's exactly what makes my day-to-day work so fulfilling.

I also see myself at Vogelsang in the long term. The projects are getting more exciting, and I look forward to continuing to fulfill my role as team leader and providing new impetus.

360°: Thank you for the interview, Florian! Thank you for your insights and for the message that resonates between the lines: Development happens where trust, practicality, and responsibility come together. We're excited to see how your journey continues and which ideas from the team will next make their way from the drawing board or screen to the pump system. ■

Sounds exciting? More information about the dual study program at Vogelsang can be found here:

THINKING IN TERMS OF CYCLES

How Vogelsang has already incorporated circular economy principles into its product design

What happens to a pump after it has served reliably for many years? Is it eventually replaced and disposed of – or does a new chapter begin for its components? This is precisely where the circular economy comes in. And this is also where Vogelsang enters the circular product design process.

At Vogelsang, the circular economy is not a theoretical sustainability concept, but a very practical question: How can products be designed so that they can be used for as long as possible, operated efficiently, repaired, and ultimately returned to the material cycle in a meaningful way?

Circular economy at Vogelsang

With a broad product range and an international value chain, the careful use of resources is of central importance to Vogelsang. Whether raw materials, semi-finished products, components, packaging, or transport solutions: resource flows and dependencies arise along the entire value chain.

Since resources are finite, Vogelsang pursues the goal of using them as efficiently and responsibly as possible. A particular focus is placed on a circular economy: products should not only be efficient, but also durable, repairable, and recyclable, without compromising on quality or technical innovation.

Resource conservation begins with product design

A large part of the Vogelsang portfolio consists of machines and systems that are designed for a long service life. In the areas of research, design, and development, the mechanical engineering company pays particular attention to minimizing primary raw materials and using materials efficiently.

This means specifically that

- products are designed to be easy to dismantle
- repairability and ease of maintenance are fixed design criteria
- high quality spare parts make it possible to significantly extend the life cycle
- at the end of their service life, many materials can be separated by type and recycled to a high standard

In this way, Vogelsang consistently follows the waste hierarchy: prevention before reduction, reuse before recycling. Disposal is always the last step.

CIRCULAR ECONOMY IS MORE THAN JUST RECYCLING

Circular economy means keeping resources in circulation for as long as possible and at the highest possible quality. In contrast to the linear economy – produce, use, dispose – the idea is to consider materials and products throughout their entire life cycle: from design and use to repair, reuse, and recycling. This is not just about waste prevention. The key is to set the course for the most careful use of available resources early on in the product life cycle: Which materials are used? How durable is the product? Can individual components be replaced? And can the materials be separated by type at the end of their life?

Circular economy in practice: the HiCone

The HiCone conical progressive cavity pump shows how these principles can be put into practice. It exemplifies a circular economy approach that begins with the design and pays off especially during the usage phase.

The HiCone has an innovative adjustment and readjustment system that compensates for the gap between the rotor and stator caused by wear through precise readjustment during operation. The result: consistently high delivery rates, multiplied service life, and increased energy efficiency. Costly and time-consuming part replacements are no longer necessary.

Longer use, less material consumption

Axial readjustment of the conveying elements extends the product life cycle while reducing resource consumption: Compared to a conventional eccentric screw pump, the HiCone requires significantly fewer rotors and stators per conveyed quantity. This not only saves material but also reduces energy consumption along the upstream value chain – from raw material extraction and processing to transport and storage.

continued on the next page »

R STRATEGIES USING THE EXAMPLE OF HICONE

With HiCone, Vogelsang is following the so-called R strategies of the circular economy. These are the core framework of circular value creation.

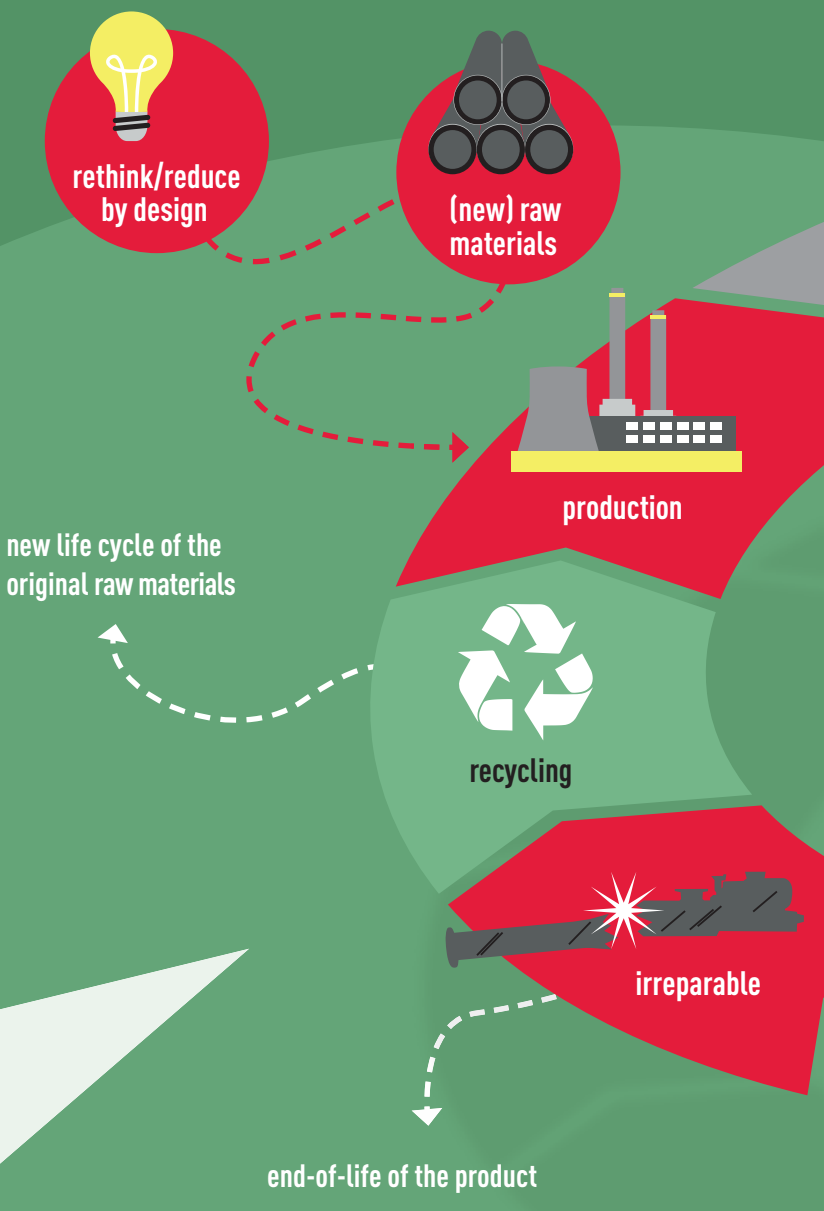
- **RETHINK & REDUCE:**
  Conserving resources through design and construction
- **REUSE:**
  Reuse through adjustment instead of replacing parts
- **REPAIR:**
  Maintenance, repairs, services, and spare parts extend the life cycle
- **RECYCLE:**
  Separation of materials by type at the end of their life

Thanks to the modular design, individual components such as rotors, stators, or seals can be replaced specifically instead of replacing the entire pump. Once the product has reached the end of its long service life, dismantling enables the materials to be returned to the recycling cycle in high quality. This makes a decisive contribution to conserving resources, especially in the case of energy-intensive materials such as metals or elastomers. Vogelsang is constantly working to improve in this area. One example of this is the separation of elastomers from the piston by pyrolysis. Vogelsang is currently examining the possibilities and processes with which this process can be implemented to continuously advance the circular economy.

Circular economy as an attitude

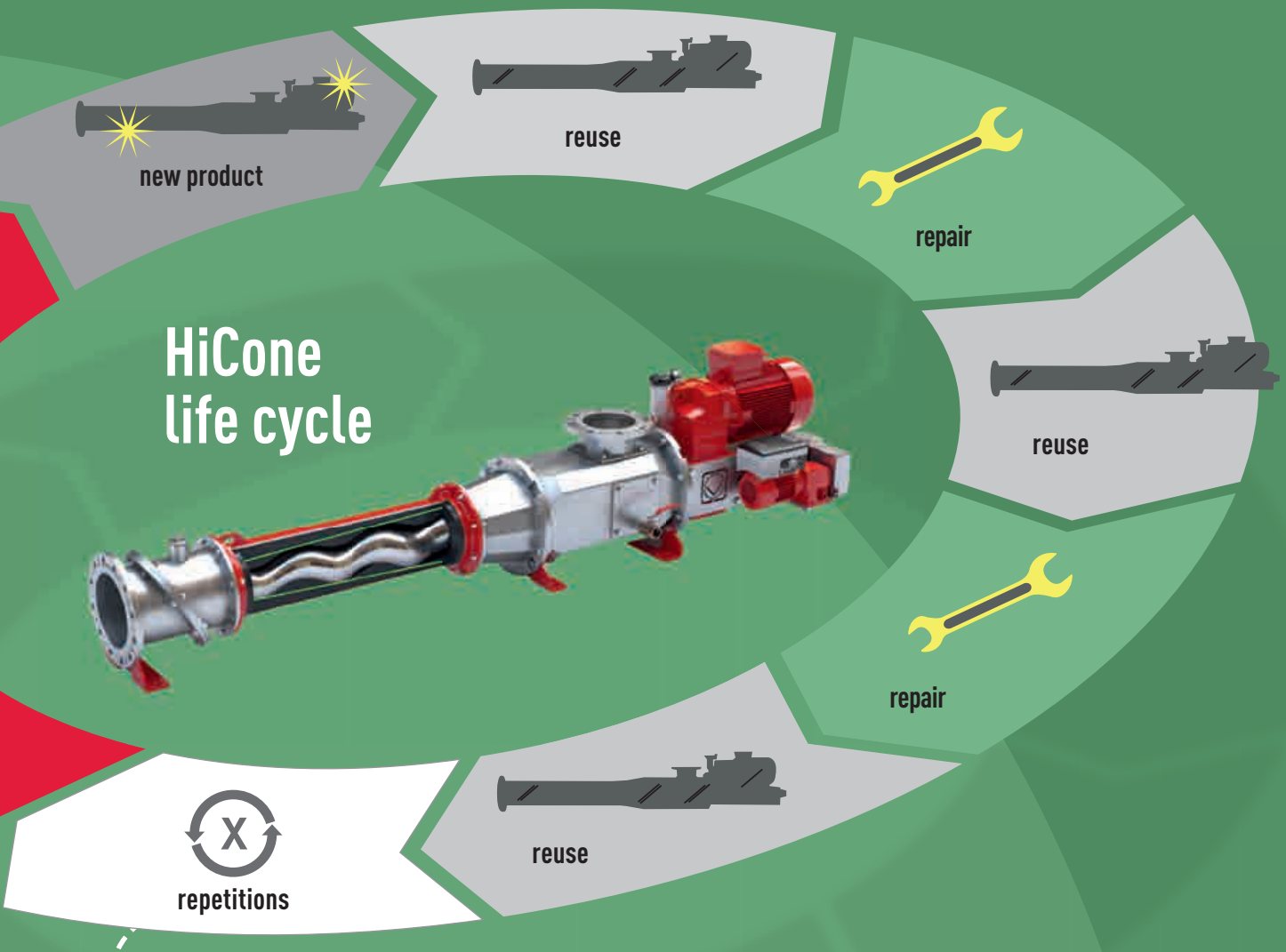
At Vogelsang, circular economy is not a single project or a short-term trend. It is the result of many strategic decisions in product design, use, service, and the return of materials.

Products such as the HiCone show how technical innovation, economic efficiency, and resource conservation can be combined in a meaningful way. With durable, repairable, and recyclable solutions, Vogelsang is already making a relevant contribution to the environment, society, and the economy, and is working every day to leverage further potential and consistently develop the circular economy. In this way, Vogelsang is creating the basis for a sustainable effect that grows with the company. ■



THE CIRCULAR ECONOMY DOES NOT END WITH THE PRODUCT

In addition to product design, the handling of packaging and transport solutions is another important lever in terms of circular value creation. Wherever possible, Vogelsang uses reusable transport packaging such as Euro pallets or mesh boxes. Vogelsang's dribble bar lines, for example, are delivered pre-assembled on a transport frame as EasyPack. A deposit system ensures that recipients return the transport frame so that it can be reused. In addition, existing packaging and filling materials are reused and components are transported in a space-saving combination. This also helps to reduce material usage and loading volume.



HERE TO STAY

New Vogelsang subsidiary in Canada

Canada stands for vastness, nature, and a market with great potential. This is precisely where Vogelsang is now sending a clear signal: with the establishment of Vogelsang Canada in Ontario, we have been represented locally with our own branch since 2025.

The new unit is still under construction, with warehouses and processes to be set up and the team to be completed. But the direction is clear. Vogelsang Canada is to grow continuously, create structures, and establish customer proximity. Managing Director Andres Parraga Colman is responsible for this. Since August 2025, he has been in charge of setting up the Vogelsang branch in Ontario. The 39-year-old previously worked for more than 12 years at pump manufacturer Grundfos in Canada in various sales and management positions, most recently as Key Account Manager for industrial original equipment manufacturers (OEMs) for North America.

Promoting visibility in Canada

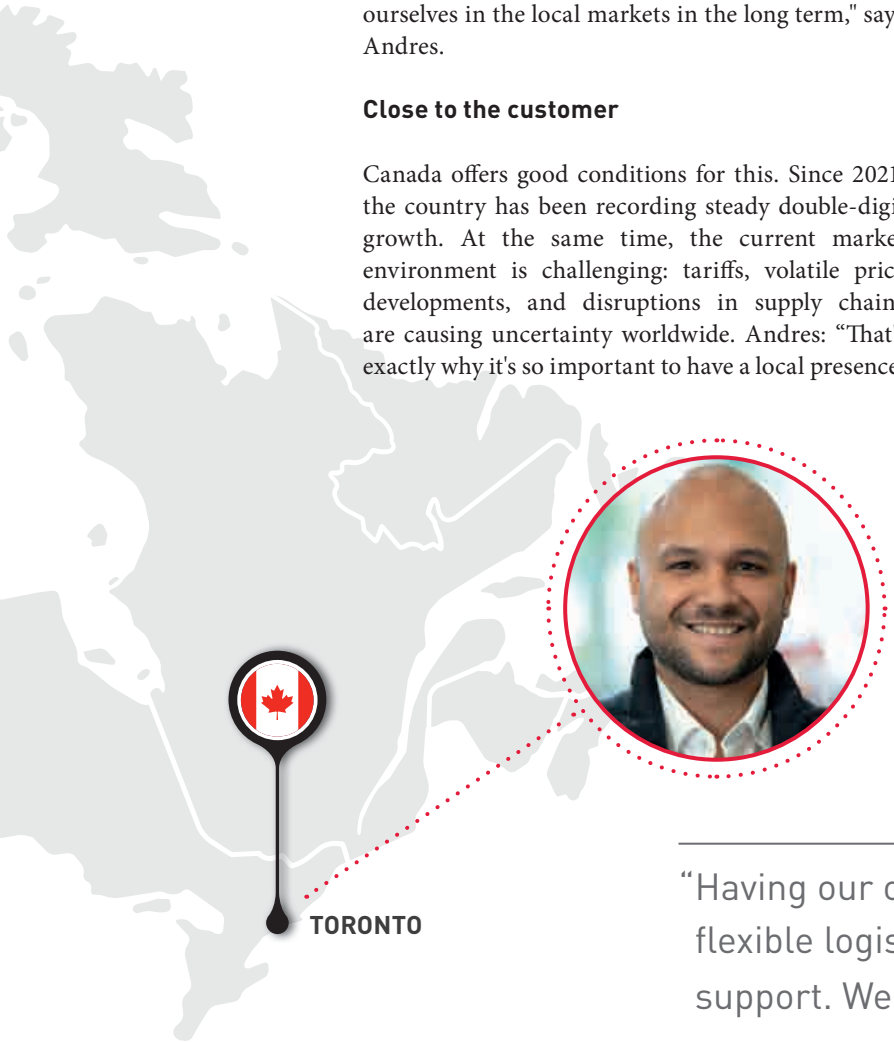
Andres' mission is to make the subsidiary fit for the Canadian market and to position Vogelsang even more visibly with its product portfolio. "Thanks to its

wide range of solutions and possible fields of application, Vogelsang is active in many different markets. This is one of the company's greatest strengths, which we will also leverage in Canada. Our goal is to tap into business potential, drive growth, and establish ourselves in the local markets in the long term," says Andres.

Close to the customer

Canada offers good conditions for this. Since 2021, the country has been recording steady double-digit growth. At the same time, the current market environment is challenging: tariffs, volatile price developments, and disruptions in supply chains are causing uncertainty worldwide. Andres: "That's exactly why it's so important to have a local presence. Having our own branch office enables more flexible logistics and local inventory for faster support. We are even closer to our customers, understand their pain points and challenges, and can support them with tailor-made solutions."

Vogelsang has already established a strong base, particularly in the areas of wastewater and municipal applications as well as in industry, thanks in no small part to many years of market development by the US-based Vogelsang subsidiary. Products such as the VX series rotary lobe pumps and the twin-shaft shredder are in particularly high demand.
Looking ahead, the growing biogas market is also coming into sharper focus. "Our goal is to take advantage of every business opportunity that arises in order to grow sustainably," says Andres. "We are here to stay." ■



"Having our own branch office enables more flexible logistics and local inventory for faster support. We are even closer to our customers."

Andres Parraga Colman,
Managing Director Vogelsang Canada

IMPRINT

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