

NEWS





cleaning your wörld



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The past year was once again marked by numerous successful projects around the globe. From completed projects in **New Zealand**, **Australia**, **Europe**, and **North America** to key developments in IBC and animal transport cleaning. Tank cleaning remains our core business, but we have also made significant progress in other areas.

In **Southeast Asia**, we have entered into a partnership with Repassa, a leading company in the region. This collaboration provides us access to a professional, international sales and service network and strengthens our market presence sustainably.

Our support department has also made great strides. The completely revamped customer portal, growing remote solutions, and our consistent focus on



GLOBAL INNOVATION AND GROWTH: CLEANING WITHOUT BORDERS

relieving customers have further enhanced our service quality. In this newsletter, we present some of our projects and show what we love to do most: **Cleaning Your Wörld!**





MANAGEMENT & MAINTENANCE DASHBOARD:

EFFICIENCY IN TANK CLEANING

The Management & Maintenance Dashboard provides insight into the performance of your tank cleaning process by monitoring consumption data and the condition of key components. This ensures you always maintain full control over your operational processes.

The Management Dashboard offers an overview of consumption, chemical usage, and cleaning programs.

The Maintenance Dashboard provides information on the status of rotary nozzles, pumps, chemical pumps, and spray guns—based on their operating hours. This allows targeted monitoring and control of consumption and maintenance. The user interface is intuitive, with filtering options by date and washing lane. Charts can be enlarged or zoomed in for detailed analysis. Additionally, the system is prepared for future expansions such as predictive maintenance—for even greater operational efficiency.



FILTRATION AT THE HIGHEST LEVEL:

VAPORPACK™



With increasingly strict regulations on emissions and air quality, air purification is becoming ever more important – for both environmental protection and employee safety. The VAPORPACK[™] offers a targeted and efficient solution for extracting and filtering harmful vapors during tank cleaning, making it especially suitable for smaller cleaning facilities. This compact, multi-stage air filtration system meets the latest emission standards and contributes to a safe and clean working environment. ✓



SUSTAINABLE ENERGY RECOVERY

WITH HEAT EXCHANGERS

The wastewater heat exchanger system offers an intelligent solution for energy recovery from contaminated water. It uses the heat from the wastewater to preheat fresh, cold water — resulting in lower energy costs and reduced energy consumption. This system not only increases efficiency but also contributes to sustainability and cost savings.

The heat from the wastewater is transferred to the cold fresh water, so that the incoming water is already partially preheated. This reduces the need for additional energy for heating, which not only saves costs but also contributes to a more sustainable use of energy and resources. The use of the wastewater heat exchanger promotes energy efficiency, reduces CO2 emissions, and makes it possible to



reuse heat that would otherwise be lost. An efficient solution that is both economically and environmentally beneficial.

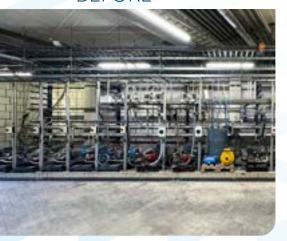


COTAC - ROTTERDAM (NLD)

UPGRADE OF CONTROL SYSTEMS & HARDWARE

Over the past year, we have made a lot of progress in renovating at Cotac in Rotterdam. The focus was on energy savings and increased automation.

BEFORE



Meanwhile, cleaning operations continued uninterrupted, which made the planning and execution of the renovation particularly complex.

Planning and Execution

The renovation was carried out in several phases, with the existing technical rooms being gradually dismantled, renovated, and equipped with new technology. The result: Cotac now boasts thirteen fully autonomous, modern cleaning lanes, making it one of the largest cleaning facilities worldwide. This size and modernity enable large-scale cleaning with high efficiency.

Energy Recovery and Automation

Each cleaning lane is equipped with a high-pressure pump, chemical injection, and temperature control. The cleaning water is preheated using residual heat from wastewater and flue gases from the steam boiler, contributing to significant energy savings. Afterwards, the water is heated to the required temperature with steam.

Operators can choose between manual cleaning and automatic rinsing programs. The system automatically adjusts temperature and pressure based on the product being cleaned, ensuring each cleaning is thorough and efficient.

All consumption data is recorded in the PLC and transmitted to central systems. This enables Cotac to generate cleaning certificates and collect relevant management information, further enhancing operational efficiency.

AFTER





USA - MAJOR DEPOTS OPEN THEIR DOORS

Gröninger USA has made significant progress in recent years. In collaboration with leading customers, several high-quality cleaning facilities have been realized, introducing the market to Gröninger's "High Pressure, Low Volume" principle.

While the focus in North America remains on tank trucks, there is a clear shift towards the use of ISO tanks. This trend is expected to continue growing in the coming years, leading to an increasing demand for professional service hubs.

Recently, three key projects were completed:







STOLT - Houston

The STOLT Tank Containers depot in Houston was completely renovated and equipped with six automated ISO tank washing stations operating at 100 bar (1,500 PSI) and 100 l/min (25 gal/min). In autumn 2025, four multifunctional washing stations will be added. Additionally, a modern water treatment plant is being constructed, enabling significant reuse of wash water. With this upgrade, STOLT is well prepared for the future.

BULKHAUL - Houston

At a strategic location in Pasadena, a brand-new service depot was built for BULKHAUL. The facility consists of twelve high-pressure washing stations (100 bar / 1,500 PSI), several of which are multifunctional. The plant is designed for easy future expansion of capacity and processing speed. This new depot offers BULKHAUL customers in the Houston area high-quality service.

DCI - Chalmette

In Chalmette, near New Orleans, DCI opened a new ISO tank depot at the end of 2024. The facility features fully separate cleaning lines for food and chemical tanks, independent latex circulation systems, and the capability to clean tank trucks using a spreader. This depot provides all necessary cleaning and service options for ISO tanks and road tankers, responding to the growing demand in the region.



WERTHER LOGISTIK - UELZEN (DEU)

SUSTAINABLE STEPS



With over 120 trucks, multiple warehouses, and around 250 employees, Werther Logistics is a leading player in the food logistics sector. The new facility in Uelzen marks an important expansion of its business operations.

The new site is located at a strategic logistics hub between Hamburg and Hanover and offers a spacious refrigerated warehouse as well as a modern tank cleaning facility with two washing lanes. These facilities are specially designed for cleaning tank trucks, silos, and IBCs that transport food products.

The range of services goes beyond cleaning: tanks can also be steamed and dried. The collected wastewater is stored in buffer tanks; then, residual heat is extracted via a heat exchanger and used to warm the process water. The water then undergoes physical-chemical treatment, making it safe for discharge into the sewage system.







NEW CONTROL SYSTEMS READY FOR THE FUTURE

Last year, Gröninger equipped several tank cleaning facilities with new control systems. This included replacing switchgear cabinets, renewing wiring, and implementing modern control software.

In addition to renovating proven Gröninger systems at Limpens in Elsloo (NL), Limpens in Bottrop (DE), and Waschross in Sittensen (DE), we also welcomed new customers. Examples include Van Moer in Antwerp and Petri in Montabaur (DE), whose existing cleaning facilities required modernization. A key challenge in such projects is minimizing downtime. This demands a detailed site analysis and tight (weekend) scheduling. Thanks to our accumulated expertise and the dedication of our motivated team, these complex renovations were successfully completed.

The new PLC control system provides greater insight into plant status and enables remote maintenance. Via the Cleaning Guard Connector, PLC data can be used to generate certificates and comprehensive management information.

WILHELM REUSS - BERLIN (DEU)

CLEANING QUALITY

WITH HIGH-PRESSURE TECHNOLOGY



At Wilhelm Reuss, a specialist in chocolatebased creams, pastes, syrups, and fillings, cleaning quality is of paramount importance. The products are often transported in 1,000liter stainless steel containers, which require impeccable hygiene.

In collaboration with Gröninger, the existing low-pressure system was replaced with a modern high-pressure solution featuring two wash heads. Extensive testing was conducted during the planning phase to ensure the desired cleaning quality. The result is clear: faster and superior quality cleaning that fully meets Wilhelm Reuss's strict hygiene standards.

OUR PRACTICAL APPROACH

At Gröninger, we design and build intelligent, technically well-thought-out systems that work as promised developed in close collaboration with our customers.

Our working method is clear and structured. With a fixed process—from the idea to handover - we ensure oversight, clear communication, and reliable implementation. Every p<mark>rojec</mark>t grows step by step, supported by technical expertise, tight coordination, and a team working together towards sustainable

PRECISE DESIGN

Our engineers translate the proposal into a technical design, while the project manager oversees the process.



3 KICK-OFF & HANDOVER

After order confirmation, the project is handed over to the project manager, who coordinates the team and ensures structured execution.



results. 🋂

1 TAILORED SOLUTIONS

We dive deep into the customer's requirements and translate them into a feasible, customized solution, considering technology, planning, and capacity.



2 TECHNICAL REVIEW & LAUNCH

Our experts review the feasibility of the proposal and create a realistic schedule. After approval, the project begins.







5 PREPARATION AND **IMPLEMENTATION**

The design is realized in our workshop by our specialists, with strict quality control and according to the agreed delivery schedule.

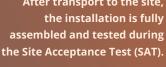


The installation is tested in our workshop. The customer can attend this test and provide approval before the installation is prepared for transport. **During this so-called Factory Acceptance** Test (FAT), it is verified that the installation functions properly.

7 FROM WORKSHOP

After transport to the site,







8 MORE THAN HANDOVER

The project is documented and handed over to our service department for aftercare, while the customer gains real-time insight into consumption and maintenance status via the M&M Dashboard.









TANKCLEANING GELDERMALSEN (NED)

FROM VISION TO PROGRESS:

TANK CLEANING AT VAN ZIEL

As the second generation leading Transportbedrijf Van Ziel B.V., Bart and Nico van Ziel have achieved impressive growth since 2008. Due to space constraints at their previous location in Kapel-Avezaath, the company moved to a future-proof facility in Geldermalsen. Under the motto "It pays to care," care and responsibility—both towards customers and the fleet—are central. This led to the establishment of their own tank cleaning facility.

One-Stop-Shop for Cleaning and Service

At the new location, a comprehensive one-stop-



shop was set up. Besides a modern logistics center, Van Ziel now has a four-lane tank cleaning facility specializing in chemical transport. Two additional lanes enable the cleaning of tanks from the food industry. The chemical cleaning lane is equipped with a state-of-the-art air purification system that meets the latest safety regulations for employees.

Safe and Controlled Cargo Heating

Tankcleaning Geldermalsen also offers cargo heating options. Tanks are connected to steam lines, while temperature sensors precisely monitor whether the desired temperature is reached—completely controlled and safely.

Sustainable Energy Solutions

Sustainability plays a central role at the new site. Solar panels installed on the roof generate electricity that is stored locally in battery storage units. The pumps are equipped with frequency converters to minimize energy consumption. Additionally, waste heat from wastewater and flue gases is recovered using heat exchangers and reused for rinsing water—significantly reducing gas consumption.



MURPY TRANSPORT - CORK (IRL)

NEW STANDARDS IN IRELAND

In Ireland's largest port, Cork, Murphy is building a new tank cleaning facility that is setting a nationwide benchmark.



The facility is located on the same street as the Seveso depot, where loaded tanks are stored. Besides cleaning, the capability for cargo heating is significantly expanded.

Chemicals can be cleaned on two dedicated wash lanes. An integrated air purification system ensures emissions are extracted and efficiently cleaned of VOCs and odors through a gas scrubber and activated carbon filters – without disturbing the surrounding environment.

For food tanks, two wash lanes with steam injection are available. This allows products with a high melting point to be quickly liquefied. The facility also supports kosher cleanings, including full traceability through documentation integrated into the PLC.

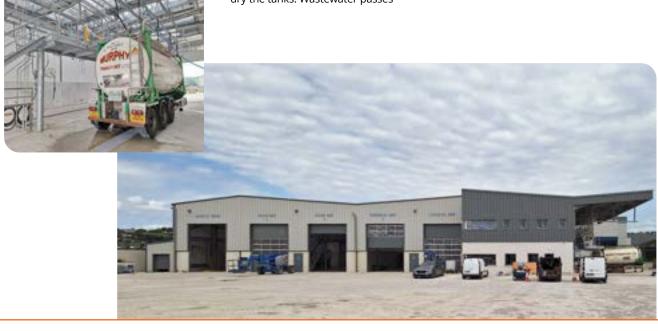
Each wash lane is equipped with multiple drying connections to quickly dry the tanks. Wastewater passes through a residual heat recovery system that returns heat to the rinse water – significantly reducing gas consumption.

Adjacent to the cleaning facility, up to ten tanks can be heated simultaneously with steam or hot water – ideal for temperature-sensitive cargo. Each station has a temperature sensor continuously monitored via the PLC, enabling round-the-clock control of the heating process.

During the planning phase, the Murphy brothers and the architect visited several cleaning facilities across Europe.

The knowledge gained was used to create an extremely functional and well-thought-out facility that exceeds all expectations.







COTALO, NEUSS (DEU)

OPTIMIZING ENERGY CONSUMPTION: **KEY FACTOR IN INDUSTRIAL PROCESSES**

Optimizing energy consumption is becoming increasingly important in industrial processes, including tank cleaning, where both cost savings and sustainability play a crucial role.

The use of innovative systems, such as wastewater heat exchangers, enables companies to efficiently recover waste heat and significantly reduce energy consumption.

CoTaLo in Neuss and A1 Truckwash in Emstek are excellent examples of companies that have recently successfully optimized their energy management.

Both companies have installed wastewater heat exchangers that capture heat which would otherwise be lost in contaminated water. The recovered energy is used to preheat incoming cold fresh water. This leads to significant savings as the energy required for water heating is greatly reduced.

Furthermore, A1 Truckwash generates energy through solar panels. An intelligent meter measures excess energy, which is then used to power electric immersion heaters that warm the water. This effectively creates a large battery storage system. All of these solutions contribute to reducing the ecological footprint while simultaneously saving operational costs.

Compact and efficient integration of the wastewater heat exchanger within a retrofitted container.



Energy generated by solar panels is converted into thermal energy.



GOLD BOND - ASHDOD (ISR)

EXPANDED SERVICE OFFERING LATEX-CLEANING



Our valued customer Gold Bond, who has been using a Gröninger system in Ashdod, Israel since 2017, has expanded its service portfolio with the acquisition of an LA15 latex cleaning unit.

This unit is equipped with a single washing head and circulates a strongly alkaline cleaning agent at a flow rate of 15,000 liters per hour and a working pressure of 8 bar. This allows ISO tanks contaminated with latex to be thoroughly cleaned within two hours.

The entire system is compactly housed in a 20-foot container, ensuring flexibility and efficiency. Thanks to this expansion, Gold Bond can better serve its steadily growing customer base.

GROLLIMUND - MUTTENZ (CHE)

OPTIMIZED UNDERGROUND

POWERFUL ABOVE GROUND





Near Basel, in Muttenz, is the headquarters of Grollimund. There, a modern, fully equipped cleaning facility for food-grade tanks was recently completed. This facility includes everything necessary for thorough and efficient cleaning: hot water, high-pressure technology, cleaning chemicals, and steam.

The system is designed for maximum efficiency and can supply three washing heads simultaneously. During the design process, Gröninger made optimal use of the existing water and steam infrastructure. True to Swiss construction tradition, the technical equipment is housed in a spacious basement directly beneath the washing bays — an ideal location for clear and efficient routing of pipes and cables.



TALKE - HÜRTH (DEU)

TALKE RENOVATES AIR PURIFICATION SYSTEM

For decades, Talke has been providing high-quality tank cleaning at its Max-Planck-Straße location in Hürth. The facility features multiple wash lines suitable for both tank and silo vehicles. After many years of reliable operation, it was time to modernize the air purification system. For this upgrade, Talke chose Gröninger.

The new system is fully ATEX-certified and equipped with a gas scrubber and

two activated carbon filters. Thanks to the gas scrubber's double-column design, the contact time between air and washing water is significantly extended, enabling exceptionally high purification efficiency. With this future-proof solution, Talke is well-prepared for many more years of sustainable and safe operations.

TMA - SYDNEY (AUS)

AUTOMATED IBC CLEANING NOW ALSO IN AUSTRALIA

Tank Management Australia (TMA) is a leading provider and manufacturer of Intermediate Bulk
Containers (IBCs), including the
AusTote™ stainless steel IBCs, as
well as other storage solutions
across Australia. The Sydney-based
company offers nationwide service.

One of TMA's long-term goals was

to introduce an automated system for cleaning IBCs. This desire led to a collaboration with Gröninger. In close coordination with Gröninger's engineering team, a comprehensive cleaning line was developed that includes automated processes for residue removal, internal and external cleaning, suction, drying, and leak testing.

The entire system was installed inside a 20-foot container, allowing it to be fully assembled and tested in Rotterdam before being shipped to Australia.

Thanks to this solution, clean IBCs are now also a reality "Down Under." 🗾







ALBERT KEIJZER - ZAANDAM (NLD)

INNOVATIVE HEAT SUPPLY SUSTAINABLE AND EFFICIENT



Albert Keijzer specializes in transporting temperature-sensitive products such as cocoa butter, chocolate, and fats. Keeping these products in a liquid state is crucial. While on the road, the vehicle provides the heating – but when stationary, an external heat source is required.

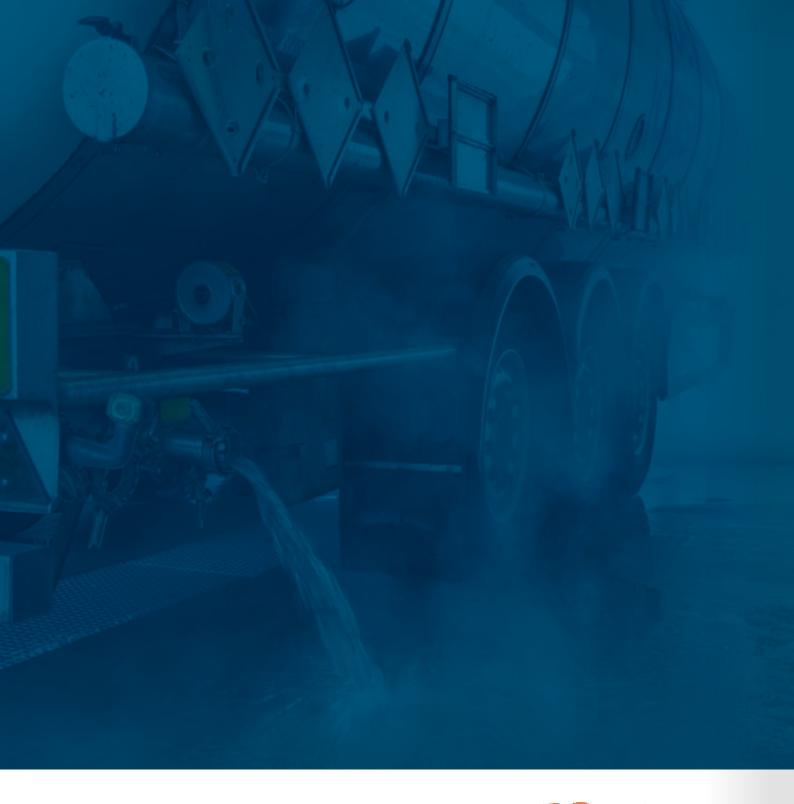
To avoid burning or discoloration of the products, conventional steam heating was quickly ruled out. Instead, an

innovative and sustainable system was chosen that utilizes waste heat from the flue gas condenser of the steam boiler during the tank cleaning process.

With this efficient system, fourteen tank trucks can be heated simultaneously at seven stations. The temperature is digitally monitored via a PLC, allowing the heating process to be controlled remotely.









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