



NEWS

2018



**cleaning
your
wörld**

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Gröninger Cleaning Systems – New horizons

During 2017 the Gröninger group again took some important steps to further strengthen its products and services portfolio and to expand its global presence.

Support Beyond Cleaning

In addition to offering custom built “turn-key” cleaning systems, Gröninger is dedicated to tailoring the right on-going support after the equipment installation and commissioning are completed. In this regard Gröninger is introducing a new initiative entitled “Support Beyond Cleaning” which is targeted to assist its global customer base with an all-encompassing program of maintenance and support of cleaning systems, spare parts and supplies, remote customer support, training of staff and operational personnel, etc.

Innovative solutions for industrial clients

Throughout recent years Gröninger has been designing and manufacturing custom-built cleaning systems for “industrial” clients where the equipment is specifically used in production line processes. The Gröninger Cleaning Booth for IBCs or stainless steel product containers is a key example of continuous system development. The booth has matured into a modular system capable of carrying out many functions (cleaning, drying, sterilization, filling, leak detection, etc.) all designed to meet a very wide range of customer needs.

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Asian developments

Gröninger’s penetration of the Asian tank cleaning market continues. In June 2017 a contract was signed to build Malaysia’s multi-purpose ISO tank container cleaning depot in Port Klang for Premier Path Tank Solutions. The new turn-key depot was commissioned in the spring of 2018 with state-of-the-art European cleaning technology.

In India Bayarea LLP were confident to purchase a generation 2 cleaning system for their facility in India’s western seaboard port Hazira. Since the spring of 2018 the plant offers European style cleaning services.

In China Gröninger’s presence in the ITCO pavilion at the Transport Logistics Exhibition in Shanghai in May 2018 is targeted to channel interest from mainland Chinese customers to the right cleaning solutions for the future.




From left to right: Henk Klein, Joost Kasbergen, Marco Newiger

Mainland Europe

The Group’s EU home market remains of the utmost importance. To strengthen its market footprint in central Europe Mr. Marco Newiger has joined the Gröninger team. He will be responsible for sales and project management support in Germany, Switzerland and Austria as Account Manager Tank Cleaning & Industry. Mr. Newiger is based in Norderstedt near Hamburg.

On the Iberian Peninsula the Gröninger position has been strengthened as well by the establishment of a sales office in Tiana (near Barcelona) to service local customers. Mr. Marcel Versluis – a 28 year Gröninger veteran - is fluent in Spanish and brings significant cleaning technology experience to the table.

Growth is needed for further investment in benchmark technology

The Group’s targeted growth for the next five years is set to secure sufficient resources for ongoing investments in benchmark technology. It is essential to create innovations and to fund investments in (software) tools and resources to further streamline production and customer project management within Gröninger, all of which are, and will be needed, to satisfy current and future customer demands. 

The Gröninger Team



Joint venture Lavadero Global-TALKE opens new tank cleaning facility

Global Spedition and TALKE Logistic Services, two major chemical logistic service providers, in 2005 combined their know-how to form the joint-venture Global-TALKE. With this step, the companies enlarged their network, creating a strong partnership for the chemical industry.

In 2016 Global-TALKE decided to expand their activities with a new tank cleaning facility in Zaragoza. This was done in collaboration with Gröninger Cleaning Systems. The objective was to be an all-in-one service provider for the food and chemical transport sector. The cleaning station was designed for cleaning of road tankers, ISO tank containers and swap bodies.

In 2017 construction of the new cleaning station near the Global-Talke premises in Zaragoza started. This tank cleaning plant is meant for both cleaning the Global-Talke fleet and with performing commercial cleanings for third parties. Mr. César Garraza, responsible for the technical installation of both



Global-TALKE Tarragona and Lavadero Global-TALKE Zaragoza, had a major influence in the design and project execution. Mr. Marcel Versluis from the Gröninger office in Barcelona added his know-how to complete a close to perfect design.

The new facility has two food cleaning bays, fully separated from a chemical cleaning bay. All bays are ready for automated cold and hot water cleaning and sterilisation. The bays are equipped with a SGF-accredited Cleaning Guard system for continuous logging of the cleaning data. This information can be printed and visualised on a Cleaning Guard validation sheet.

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All bays are equipped with a hot air dryer system in order to leave the silos, road tankers and ISO tanks perfectly dry after cleaning. On the outside of the building two temperature controlled heating points are available for the heating of loaded tanks or for keeping cargo at pre-set temperatures overnight or during weekends.

Since people's safety and environmental matters are top priority for Global-TALKE, the company has paid a lot of attention to the design of the wastewater treatment plant and special utilities (fall protection, operator booth, etc.) on the cleaning bays.

Lavadero Global-TALKE Zaragoza will certainly be a key to the further development of this successful joint venture in Spain. 🇪🇸





VADO TANK CLEANING - VADO LIGURE (ITA)

Joint venture of Stolt and Marenzana to service the Italian market

Vado Tank Cleaning recently opened a new facility located in the north of Italy, close to the APM Terminal in Vado Ligure (Savona). The site is able to clean, heat, store, service and test ISO tank containers and swap body tanks.

In this joint venture depot Stolt Tank Containers and Marenzana Spa combine years of experience in the tank container and intermodal transport business into one depot. The facility is designed to work as efficiently and safely as possible, raising the quality and service bar for the tank cleaning business in Northern Italy.

The design of the new depot was based on the layout and features of the Stolt Tank Containers Depot in Moerdijk (The Netherlands), which was constructed by Gröninger as well and has been operating successfully since 2015. The depot not only allows for high quality cleaning but its heating facilities also make it possible

to heat tanks 24/7. Tank temperatures are monitored continuously to guarantee safe procedures.

With Marenzana's experience in the trucking business of bulk liquid chemicals throughout Europe, Vado Tank Cleaning was able to optimise procedures with the ambition to get trucks in and out as quickly as possible, saving valuable time for customers.

The cleaning equipment supplied by Gröninger is placed in box containers which are transformed to house all equipment. A multi-purpose design allowed Vado Tank Cleaning to clean trucks and containers at the same time on one bay.

This has resulted in a significant increase in cleaning capacity and improved turn-around times.

Vado Tank Cleaning is committed to ensure safety for people and the environment. A significant amount of attention was paid to the waste water and air treatment procedures. The water treatment plant is identical to Moerdijk, maintaining strict standards for the effluent liquids discharged to ensure impact on the environment is minimised. Moreover, Vado Tank Cleaning treats air emissions from inside the tank with a high performance air scrubber and activated carbon filters. 🚧

GOLD BOND - ASHDOD (ISR)

Added services with a tank cleaning facility for the Israeli market

The Gold Bond Group specializes in storage and handling services and operates a container and cargo terminal in Israel. The company focuses on the handling of hazardous material cargo. In order to offer an even better service level to its customers, Gold Bond decided to set up a tank cleaning facility in Ashdod.

After fact finding missions in Europe, Gold Bond selected Gröninger as the preferred supplier for the cleaning equipment. The equipment and steam boiler were built into a box container converted into a technical room. This allows Gold Bond to not only clean tanks but also to offer tank container heating solutions. The handover of the system took place in Rotterdam. Being new in the business, the Gold Bond team was thoroughly trained by Gröninger staff to operate the system.

In addition to the supply of technical equipment, Gröninger (in cooperation with Cindax) was also contracted for "Support Beyond Cleaning" by providing information on how to clean certain products. This allows Gold Bond to offer very professional services right from the start. 🚧



Gold Bond in Rotterdam for the Factory Acceptance Test (FAT)



GP GÜNTER PAPENBURG - ILSSEDE (DEU)

Existing cleaning facility fully modernised and prepared for the future

GP Günter Papenburg is a large German consortium of about 50 companies, predominantly active in the field of construction. To support these construction activities, Papenburg acquired Keunecke Spedition in 2007. Keunecke had been active in the dry bulk transport for many decades. The head office in Ilsede near Hannover, is ideally located to serve customers throughout Germany.

After being in operation for many years, the facility in Ilsede needed modernization. It was also a perfect opportunity to take a closer look at the efficiency of the system as well. In cooperation with a local company, Gröninger and Papenburg designed a system whereby a combined heat and power system is used to generate the warmth to heat up the cleaning water. The system needed to be installed in the basement of the building; this made the renovation project a bit more challenging. Gröninger designed a frame that included the pumps, water tank and control panels.

The new facility is suited to clean and dry silo trucks according to the latest standards. Worker safety is guaranteed by the use of fall protection and a special pedal to operate the hose cleaning nozzles. The system uses the latest software to control and visualise all steps in the cleaning procedures. An internet connection enables remote access for system changes and software updates. Papenburg is ready again for any future challenges. 🚧



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TANK CLEANING EUROPOORT 3 - ROTTERDAM (NLD)

The one-stop-shop for the tank (co

Right in the middle of the Port of Rotterdam 13 hectares of dedication to (tank) containers can be found. In just a little over a decade ITT (In 't Veen Total Maintenance Tank & Silo) has developed into Europe's largest tank container depot, TCE (Tank Cleaning Europoort) being its beating heart.

This is as close to an one-stop-shop as you can get. Over 3,000 tank containers can be stored, there is a special storage area for laden tanks, 24 heating locations, 13 cleaning bays, three steam boilers, a major waste water treatment (WWT) plant, a huge repair facility, N₂ & Co₂ purging systems, latex cleaning, all managed like a NASA launching facility.

Founder and owner Kees in 't Veen was more or less seduced by his largest customer Kemira to move from Pijnacker to

Europoort in 2004 with his transport company. Rising to the occasion Kees started with two chemical cleaning bays and one food bay. Partners for tyres, maintenance and repair were selected to complete the concept. Starting in 2006, no-one could ever have suspected the growth. In 2011 repair facilities were doubled, six additional chemical bays were added, while the existing cleaning facility was turned into a dedicated food cleaning operation. Meanwhile improvements of all kinds were introduced that really differentiated TCE in the market, e.g. two 200 bar cleaning bays, an air purification unit, SGF accredited Cleaning Guard system on the food bays, etc.

Just recently TCE3 has gone fully operational, with four food tank container cleaning bays. All bays run with 100 bar plunger pumps fed with hot water. Two bays are multi-



ntainer) industry

functional, i.e. they combine high pressure cleaning with Cleaning In Place (CIP). The system is completely integrated and automated. Without any manual interference, high pressure cleaning can be combined with a CIP circulation of cold water, a peroxide or a caustic batch. In this way even the highest demands of customers can be met.

With over 50,000 cleanings per annum and best-in-class housekeeping TCE is the worldwide benchmark for the industry. During a recent visit a customer summarised his feelings strikingly: 'I just visited the Taj Mahal of tank cleaning!' 🏡

Highlights

- I.** Temperature controlled heating: 24 fully controlled heating positions, managed from the central office
- II.** TCE1: Three dedicated drive-through food bays, each equipped with five rotor jets. The first three bays ever with the Cleaning Guard system
- III.** TCE2: Six chemical cleaning bays, two of which are power bays operating at 200 bar. The first horizontal air purification system in the Dutch market
- IV.** WWT: A complete waste water treatment plant, capable to treat any residue
- V.** Three steam boilers with a combined capacity of 8,500 kg/hr, installed with an intelligent redundancy system
- VI.** TCE3: Four back-in bays for fully integrated high pressure cleaning and Cleaning In Place (CIP) for food
- VII.** Tank container storage



BTR - BERNBURG (DEU)

Tank cleaning runs in the family

In the summer of 2017 BTR GmbH opened a brand new tank cleaning facility at a strategic location near the German A14 highway. BTR already operates a site in Ludwigsfelde and now has a flagship facility in Bernburg. Father and son Toben are the proud owners and managers of the site.

Based on over 25 years of market experience the Tobens set out very specific

design parameters for the tank cleaning facility. This led to a multi-functional three bay cleaning facility to be used for chemical and food cleaning. The system operates at 100 bar, recovers heat from the waste water stream and has an ultra-modern air purification system. Gröninger, as system integrator, was challenged to meet the latest standards of steam boiler technology and ATEX requirements. The Toben-Gröninger team



From left to right: Henk Klein, Manfred Toben, Matthias Toben, Johan Giberius

proved to be very successful which led to the completion of an efficient, well organised facility that will meet the tank cleaning needs in a rapidly growing region of Germany. 🚧

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FELUY CLEANING - SENEFFE (BEL)

A modernisation and renovation project brings Feluy completely up to standard

Feluy is a holding company with a range of business activities. One of the companies operates a tank cleaning facility that was originally opened in 1999. Since Feluy took over the cleaning station in 2003 the number of cleanings has increased. In order to meet market needs and service level requirements the

company in 2017 decided to contract Gröninger for a full scale modernisation and renovation of the existing site. Gröninger was selected for its experience and knowhow. Gröninger designed the system components. Integration and installation on site was a joint effort of the Gröninger and Feluy staff. This

cooperation was shown to be mutually beneficial and resulted in a successful project.

Since the existing cleaning stayed operational during the renovation it was key to keep the down time to an absolute minimum. This challenge required intensive coordination and communication, with the main issues replacing the existing piping and the complete renewal of the control panels and cabling.

This project showed that challenges can be handled when two companies strive towards the same goal. Flexibility and openness were key to developing a new system that enables Feluy Cleaning to clean road tankers and tank containers to the latest industry standards. 🚧



PETIKEMAS - PORT KLANG (MYS)

Gröninger's penetration of the South East Asian tank cleaning market continues

During 2017 Gröninger Cleaning Systems of Rotterdam, through their Asia subsidiary Gröninger Asia Pte Ltd in Singapore, achieved another first for the group with the first system sale to Malaysia.

In June a contract was signed to build Malaysia's first multi-purpose ISO tank container cleaning depot in Port Klang for Premier Path Tank Solutions a division of the Logistics Group Syarikat Logistic Petikemas Sdn Bhd.

The company already had one cleaning depot located in Kuantan on the Eastern Seaboard of the Malaysian peninsula and is considering other Malaysia and S.E. Asian locations. The new Port Klang depot layout features both static and drive through cleaning bays which are initially designed to clean a range of Natural Latex's and Oleo Chemicals.

With the facility is commissioned in the spring of 2018, the design allows for a doubling of cleaning capacity when it is envisaged that additional cargo residues will be targeted for cleaning.

The turn-key Gröninger equipment package, providing State-of-the-Art European cleaning technology includes a Latex Cleaning Unit and a complete waste water treatment plant featuring both physical chemical and biological processing. 📌



Group Management Petikemas and Gröninger



KÖPPEN - DUISBURG (DEU)

Drive-through bay for four containers

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Köppen GmbH is the leading tank container service provider in North Rhine-Westphalia. In the location of Duisburg, the most significant intermodal hub along the Rhine, they are offering the logistical services needed for tank container operations.

An important service that is offered is the cleaning of tank containers. Köppen operates a drive-through bay that can handle four containers at the same time. To optimise the utilisation of the bay, Wim Köppen challenged Gröninger to design a system whereby the pumps could be combined to clean tank trucks as well. This gives Köppen the flexibility to clean tank trucks and tank containers in the same time frame without repositioning the rotor jets.

The cleaning can be controlled via modern Siemens touch-panels that allow the cleaners to clean tanks with automatic cleaning programs. The programs selection is based on the previous cargo.

Due to the new system, cleaning results have been improved allowing Köppen to generate a higher throughput. The efficient cleaning facility strengthens Köppen's leading position in the Ruhr area. 📌

SCHWARTAUER WERKE - BAD SCHWARTAU (DEU)

Integrated food container cleaning and sterilisation station at Schwartauer Werke

Schwartauer Werke GmbH is a well-known German manufacturer of fruit products like jams and cereal bars. Since 1899 the company has operated different factories under its name in its home town of Bad Schwartau. The company is a subsidiary of Swiss based Hero, a large multinational food company.

Schwartauer Werke supplies products in many different forms of packaging; from glass jars to 1000 kg stainless steel food containers. The growth of deliveries to the German food industry has developed rapidly over the last years, especially products delivered in stainless steel food containers has emerged as an important supply chain.

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In order to comply with stringent food safety and quality standards Schwartauer Werke decided to invest in an in-house container cleaning and sterilisation station. By insourcing these activities the company fully controls the process and is best positioned to meet customer needs.

A number of equipment suppliers were consulted in the pre-ordering phase. Since

Gröninger had considerable experience in this field and came up with the best engineering solution, Schwartauer Werke teamed up with Gröninger for the project.

Since the spring of 2018 the brand new, fully automated cleaning booth for stainless steel food containers is in operation. The systems clean both the inside and outside of the containers using high and low pressure pumps. An integrated data logging feature allows Schwartauer to

build up a cleaning and sterilisation history per container operated in the supply chain.

Following the cleaning all food containers are sterilised and tested in overpressure with nitrogen or sterilised air. This way all Schwartauer customers can be assured of perfectly handled containers with excellent product. Like Schwartau is saying: "Echt gut gemacht!" (made perfectly). 

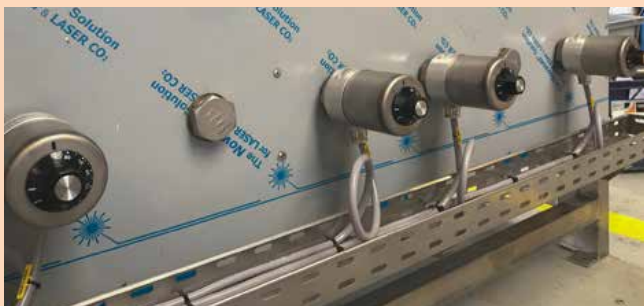


Team Schwartauer and Gröninger in Rotterdam

VWR - OUD-HEVERLEE (BEL)

Heating water using electricity might be the environmental friendly way forward

Heating cold water for cleaning can be done by using energy sources like steam, gas, diesel and electricity.



The latter is not new, but is seen a promising approach for the future. Today's discussions on fossil fuels and the need for renewable energy promotes electricity as an interesting alternative, since electricity can be generated by solar, wind and water energy systems.

Gröninger supplied a pump unit to a Belgium pharma customer VWR to clean IBC containers using hot demineralised water. The facility itself supplies cold demineralised water for the unit which is heated to 60°C using electrical heating elements. For this purpose a water buffer tank has been equipped with 4x 12 kW electrical elements.



COLAC - BEERSE (BEL)

Colac Bvba opens new production plant

Colac is manufacturer of ice cream powders, sugar free dessert sauces and organic fruit preparations. The company recently opened a new production plant to increase both production output and service levels for its customers.

Increased production figures required more stainless steel food containers to be cleaned. The company contracted Gröninger for a modern food container cleaning system. Colac and Gröninger jointly designed a new cleaning area where container logistics and container cleaning have been able to be fully aligned and integrated.

The Gröninger food approved CleanPack combines a system with high and low pressure pumps and fully automated process flows. Validated washing programs are based on Colac's product range. The system is easy to operate and is built according to the highest ergonomic standards. The result is an extremely high quality cleaning zone where all process data is logged via the PLC to secure a complete cleaning history per container in the supply chain. 🚀



IBC cleaning is usually done with a rotor jet using 20 litres of water per minute. The pump unit is PLC equipped to execute automated washing programs. A standard washing program takes 5 minutes. The energy cost per program can be calculated to about € 1 per cleaning.

Using electricity can be very interesting for companies that use solar panels, heat boilers or wind systems to generate electricity in-house.

For Gröninger energy savings or renewable energy projects are a key area of interest and experience. Gröninger is keen to discuss any possibilities to help customers to reduce their CO2 footprint and to position themselves as companies that take environmental and sustainability matters seriously. 🚀



DÖHLER - DARMSTADT (DEU)

New system flushes out aromas from food containers faster and more effectively

Döhler GmbH is a global producer, marketer and provider of technology-driven natural ingredients, ingredient systems and integrated solutions for the food and beverage industry.

Gröninger has supplied an integrated system to clean food containers with product residues that generate a wide range of aromas, at the largest production site of Döhler in Darmstadt. In recent years Gröninger supplied custom built systems to Döhler facilities in Russia, Turkey, The Netherlands and Brazil.

Food products like aromas are sometimes difficult to clean and especially the intensive odours of some aromas tend to adhere to the containers. Döhler's engineering team had been searching for a suitable and more innovative solution, which led to a close cooperation between

three companies Döhler GmbH, Gröninger Cleaning Systems and Anseros Klaus Nonnenmacher GmbH from Tübingen to meet the challenge.

By implementing a recirculation system using hot demineralized water, a cleaning agent and ozonized water, the intensive odour was removed much faster than in previous methods of cleaning. The system capacity was designed to meet growing market demand for aromas and related products. 🚀

Klaeser – Hamburg (DEU)



Klaeser operates hundreds of tank trucks and tank containers from various locations in Germany. Tank cleaning services are offered in Herten, Hamburg and Ludwigshafen. After a thorough analysis, the company decided it was time to renovate and upgrade the Hamburg cleaning facility.

Following an in depth market survey, Klaeser decided to select Gröninger to do the job. The plan was to keep the downtime of the facility to a minimum. This challenge required detailed preparation with the main focal points being the

existing building structure and the complete replacement of the control panels and cabling.

The first challenge was tackled by pre-fabrication of the complete system components on skids. These skid based units could be positioned and commissioned quite quickly. Since Klaeser cleans a lot of latex tanks, the purchase and installation of a stand-alone Latex Cleaning unit was an obvious requirement. Detailed pre-planning enabled all piping and electrical cabling works to be completed in record time.

This project showed that challenges when faced head-on can be overcome when two companies have the same mind set. Flexibility and good cooperation were the key. The Klaeser company has plenty of reasons to be proud of the new tank cleaning facility. 🏗️

TechnoPort – Moerdijk (NLD)



NewPort Tank Containers is a prominent tank container operator with sizable operations on all major trade routes. To optimize the utilisation of tank container equipment, NewPort now operates a depot in Moerdijk, The Netherlands.

The new logistics hub operates as TechnoPort and offers cleaning, heating, storage and repair services. Gröninger was selected to design and install the cleaning equipment. The facility offers cleaning services for both chemicals and food products at separated cleaning bays. Gröninger scope of supply included more than the cleaning system. Steam is produced by an efficient steam boiler

that includes a flue gas condenser to increase efficiency. The boiler is used for heating of cleaning water and for heating of loaded tank containers. To manage and control the

temperature of the product, each heating position is equipped with a temperature sensor connected to the PLC. All waste water is collected in buffer tanks and treated in a waste water treatment plant that corrects the pH level and removes oil, fat and floating particles. Since the number of NewPort containers in operation is growing rapidly, the new depot is built in a way that future growth can be accommodated.

The opening ceremony was performed by Michael de Rijk (CEO) and Rien van der Ree (Depot Manager). The new facility will be key for TechnoPort to accomplish future plans. 🏗️

Ongoing projects

- Bayarea Terminals – Mumbai (IND)
- CoTaLo – Neuss (DEU)
- Uventrans – Sofia (BGR)
- Bachmann Logistik – Kölliken (CHE)
- NRS Corporation – Kawasaki (JPN)
- Goodrich Middle East – Dubai (ARE)
- Wemmers – Zaandam (NLD)
- Houweling – Bleiswijk (NLD)
- Tankcleaning Venlo – Venlo (NLD)
- TechnoPort – Moerdijk (NLD)
- Sahreej KTS – Jubai (SAU)
- Joosten – Emmerich (DEU)



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