



NEWS

2020



cleaning your wörld

Tank container logistics
in Germany

6



Tank Cleaning depot Saudi
Arabia kicks off

9



Two impressive
projects in Belgium

10



At the time of writing, the whole world is in the midst of the Corona crisis. An extraordinary situation for everyone - including those active in the world of cleaning - that can't be compared to any previous experience. This means improvising and innovating in order to continue our work on behalf of our customers.

At Gröninger, we have launched various initiatives over the past year in order to be able to serve and support our customers more "remotely". Today's situation is all the more reason to give these initiatives an even higher priority. Winston Churchill had a well-known saying "Never let a good crisis go to waste". Given the many victims and all the human suffering, the Corona crisis can't be called "good" at all, but it also brings out positive aspects. Perhaps one Charles R. Swindoll's phrase "We are all faced with a series of great opportunities brilliantly disguised as impossible situations" better covers the situation we are in right now.

As Gröninger we therefore do everything we can to discover these opportunities and to offer added value to our customers. Not only during this crisis, but certainly also in the period thereafter. Because we assume that the crisis will pass and logistics services, food and non-food production will always have to continue, even now.

As a company, we are fully committed to the following initiatives:

2

Data gathering

The PLC control is the heart of every Gröninger system. Through this PLC the system is controlled and all kinds of data is recorded. Not only data related to the technical functioning (filling of water tanks, startup of pumps, etc.) but also all data related to the cleaning process: think of washing programs, consumption, temperature, time, pressure, dosing chemicals, etc. Sensors play an important role in this. Systems are full of them nowadays. "Measuring is knowing", so this data is invaluable to us and our customers. Via the data gathering software, the data is collected, compressed and made transparent via reports. The system is designed in such a way that the data, independent of the software package used by the customer

for ERP/Business Management, is available and can be made accessible in a transparent way.

Customer portal

Last year, our customer portal "1.0" became operational. In May/June 2020 version "2.0" went live. For this it was necessary to first migrate our internal ERP system (SAP B1) from an SQL to a so-called HANA database. The database is state of the art. From this database much more practical information can be accessed for the benefit of our customers. Version "3.0" will be released later this year.

Online support

As a company we have made significant steps with online support. Not just with newly delivered systems, but also more and more older systems, that are migrating to an online support system. From the newly installed control room in Rotterdam we can remotely monitor systems, make software adjustments, carryout fault finding, check settings and in some situations remotely start up an installation ourselves. Currently, more than 80 customers have been linked 100% securely with the latest "remote" technology.

Support Beyond Cleaning

The above initiatives all fall within what we call Support Beyond Cleaning. Support Beyond Cleaning goes much further than just "hardware" and increasingly focuses on "software", "remote support", "services" and "sharing knowledge". As an example: at Gröninger we have a lot of knowledge about the cleaning process and the best cleaning agents. Together with our chemical partner, we have developed a range of cleaning chemicals with the name GroClean that meets the highest quality requirements and which we support 100%.

Finally

In this NEWS Magazine we discuss, as usual, all kinds of completed projects and current initiatives. If you think "that's also something for our company", please let us know. We would like to help you further develop your business. 📧

The Gröninger Team



Air purification

To reduce the potential risks of noxious odours and hazardous vapours during tank cleaning, many tank cleaning companies decide to purchase an air purification system. An additional advantage is that the working environment for the operators becomes a lot more pleasant and safe.



Air purification

The air purification system often consists of a combination of gas scrubbers and active carbon filters. This makes it possible to capture a wide range of gases and vapours. The purified air is emitted to atmosphere and the collected waste products are sent to the waste water treatment system. Over time, the active carbon becomes saturated and needs to be replaced.

At a number of customers at home and abroad, the existing tank cleaning system has recently been expanded with an air purification system, such as RSA Talke (see photo) and WTR (see below). This allows more products to be cleaned and complies with the latest regulations. The systems can be built in a container as well as in a technical room. By modifying the rotorjet assembly, the extraction is integrated into the existing system and no extra actions are required by the operators. 🚧



Gas scrubber with carbon filter in the background (RSA Talke Dubai)

WTR - WILlich (DEU)

One of the proud owners of a new air treatment plant is WTR in Willich. WTR has been active in the tank cleaning sector since 2001. During this period, countless tank trucks, silo trucks, tank containers and IBCs have been cleaned.

Due to growing demand and the increasing requirements of customers, WTR expanded its service package in 2011 with the construction of an additional cleaning bay for the food industry. The emphasis at WTR is on quality, professionalism, reliability, loyalty and an open and friendly relationship. In view of these core values, WTR has been using the Cleaning Guard quality assurance system for tank cleaning since 2019. With the new system, cleaning parameters such as pressure, temperature, flow rate, time and chemical dosing are collected in the system. This data is made available to customers with a cleaning certificate, which guarantees the accuracy of the cleaning process and provides transparency to the customer. 🚧



Control Cabinets refurbished – Tank cleaning

Many tank cleaning systems that have been built in recent decades still run on the original controls. Ageing of the control systems leads to the following risks:

- The control cabinets are situated in humid environments and have to endure a lot. Panels and components may not be available anymore.
- Time may have caused cables to become brittle.
- PLCs of specific models may be difficult to obtain. In case of a PLC failure this may lead to long downtime.
- The PLC software becomes outdated and not very flexible.
- Etc.

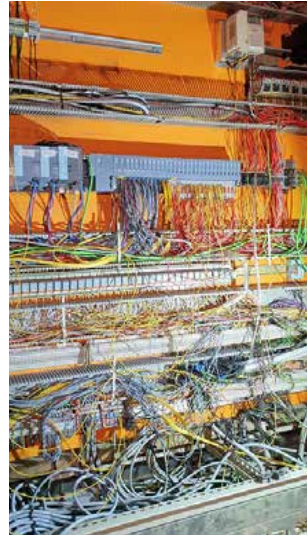
In addition, the ongoing digitalization demands more transparency of the cleaning process. New operating systems can offer this transparency and offer many possibilities for linking data. But the challenge is: how do you replace a complete control system without downtime?

In the past year, Gröninger has replaced the entire control systems at different customers, both at home and abroad. Control cabinets, PLCs, cabling, software, everything has been replaced. These “open-heart-surgeries” require thorough preparation and project planning. Overrun means downtime and downtime means (reputation) damage.

Each project had its own challenges. The main challenge for all projects, was keeping downtime as low as possible. The conversions have all been done successfully and within the agreed timeframes. Our refurbished customer systems are future-

proof again and can serve again for the long haul.

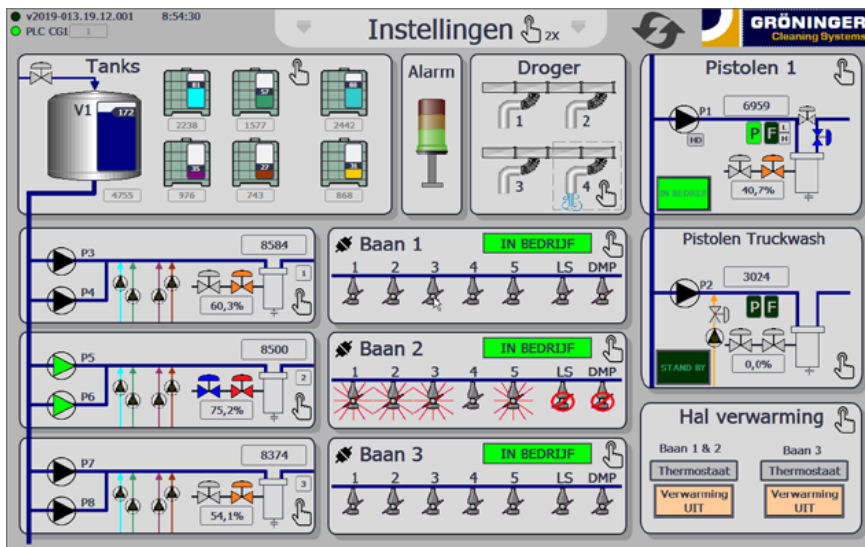
If you want to know more about the possibilities for your system? Contact Ferenc Methorst or Joost Kasbergen by e-mail: info@groningner.nl



An operating system before and after replacement

TANK CLEANING EUROPOORT - EUROPOORT (NLD)

Staying in control



excellent condition. Although the control system still functioned well, it was decided to replace it completely. The old Mitsubishi PLC has made way for an ultramodern Siemens one. The new Profinet technology makes the entire system transparent and remotely controllable. This brings the system up to level 2020.

A conversion is actually more difficult than building a completely new system, because the operations may not suffer too much nuisance from the activities. A combined Gröninger/TCE team prepared a detailed plan in which all activities were discussed. This meant that the entire conversion could be completed within two weeks. With this system completed, TCE1 can move forward at least until 2035!

Tank Cleaning Europort (TCE) is rightly seen by many as one of the most significant references in the field of tank cleaning and tank container logistics. With thirteen fully automatic cleaning bays, three fully redundant steam boilers and 24 steam locations a very complete

package is offered.

The first cleaning system, TCE1, has been running for fourteen years now. Partly due to an excellent and consistently implemented maintenance program, the hardware of the system is still in

High speed, high pressure

Quala is by far the largest service provider in the field of tank cleaning in North America. With more than 70 locations the company has a very good coverage and has a presence at almost all strategic locations in the market.

Quala is constantly working to serve its customers better and tries to look across borders. This is how Quala ended up at Gröninger. A joint plan has been made to introduce Gröninger's technology to the United States. Unlike in Europe, most cleaning in North America takes place via low-pressure circulation systems. With Gröninger's high-pressure technology, considerable time savings for Quala's customers can be achieved in combination with even higher quality. However, an important fact in the North American market is that most tankers only have one manhole, which makes high-pressure cleaning in the traditional way impossible. In order to make this possible Gröninger has developed a patented spreader which makes it possible to achieve the same speed and quality as in Europe.

Meanwhile, two Quala locations in Rahway NY and La Porte TX (Houston) are equipped with the new systems. The

reactions of Quala's customers are very good: the waiting times at the locations with the new technology have been drastically reduced and the cleaning results are excellent. Together with Quala we are working on a plan to further roll out the technology through the growing Quala network. 🇺🇸

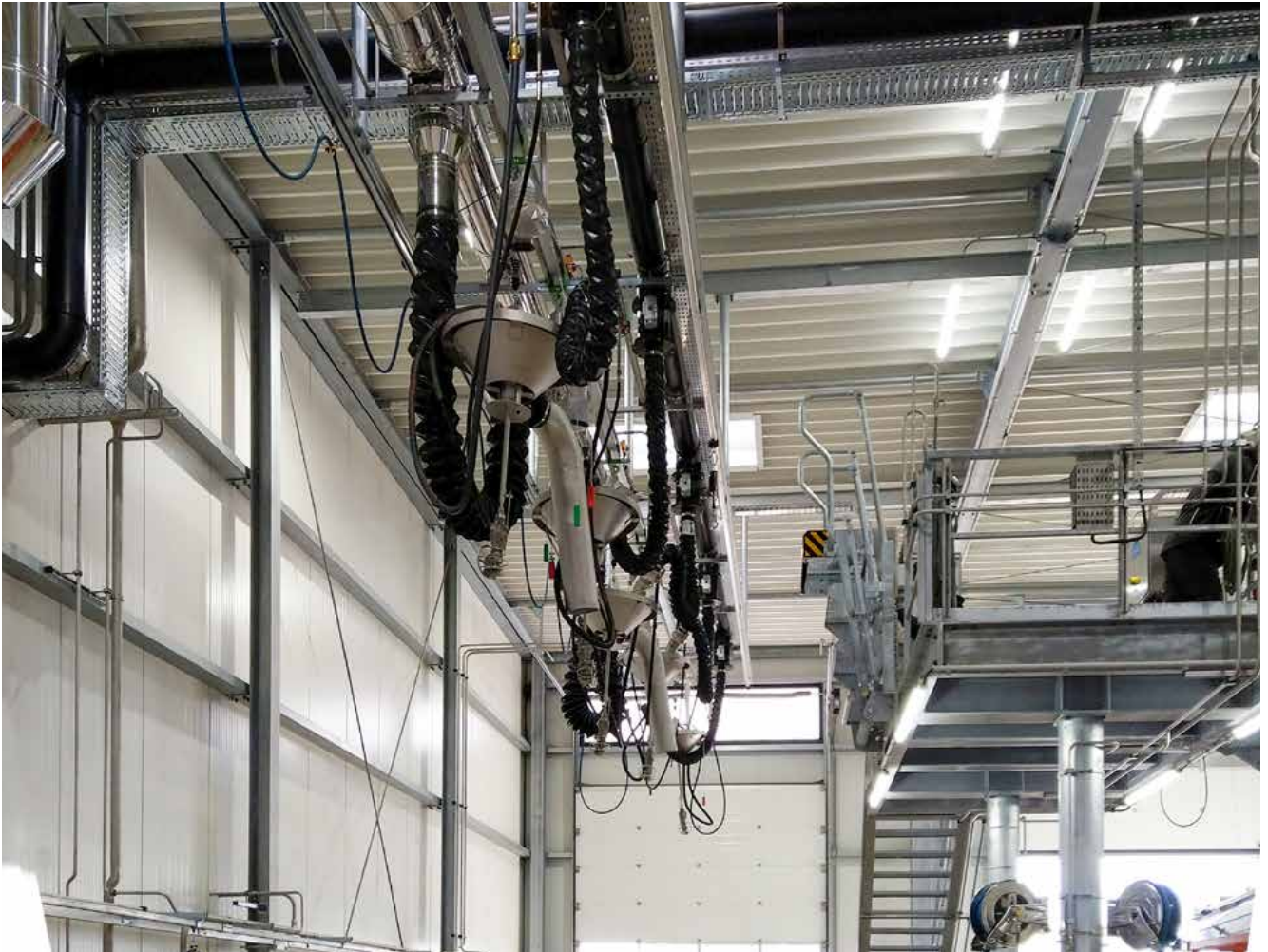


Temperature controlled heating systems including data logging

Tankcleaning Services Ltd offers cleaning and heating services in the port of Dublin. The company is owned by JP Ryan.

In January 2020 Tankcleaning Services commissioned a twelve position automatic heating system. Each position is equipped with a temperature controlled steam heating system that continuously monitors the temperature while the product is heated in the ISO tank in a safe, efficient and controlled way. The steam heating system is available 24 hours a day/7 days a week at the Tankcleaning Services depot in the Port of Dublin. 🇮🇪





6

COTALO - NEUSS (DEU)

Tank container logistics in Neuss

At CoTaLo GmbH in the German city of Neuss a Gröninger cleaning system has been installed. CoTaLo is the latest addition to the “Filzhut Logistics” group, which in addition to the transport of liquid chemicals and storage facilities, adds to the logistics service offering.

With the new cleaning station, the Filzhut group is able to meet the special requirements of their customers in the region as well as abroad. The philosophy “The customer is king” fits in perfectly with this.

The cleaning station was completed in November 2019 and meets the latest quality standards. The station is equipped with five bays, including three special chemical bays and two special food bays. The station has the technology to clean tank trailers, tank containers and silo trucks, as two of the chemical bays and two of the food bays are each equipped

with five rotor jets. The third chemical bay is equipped with a special 200 bar system for cleaning difficult chemicals from a tank container.

In order to be on an equal footing with the latest standard in the food industry, both food bays are equipped with the Gröninger Cleaning Guard system. This system monitors and stores the data of each cleaning in order to create a cleaning certificate with the cleaning parameters.

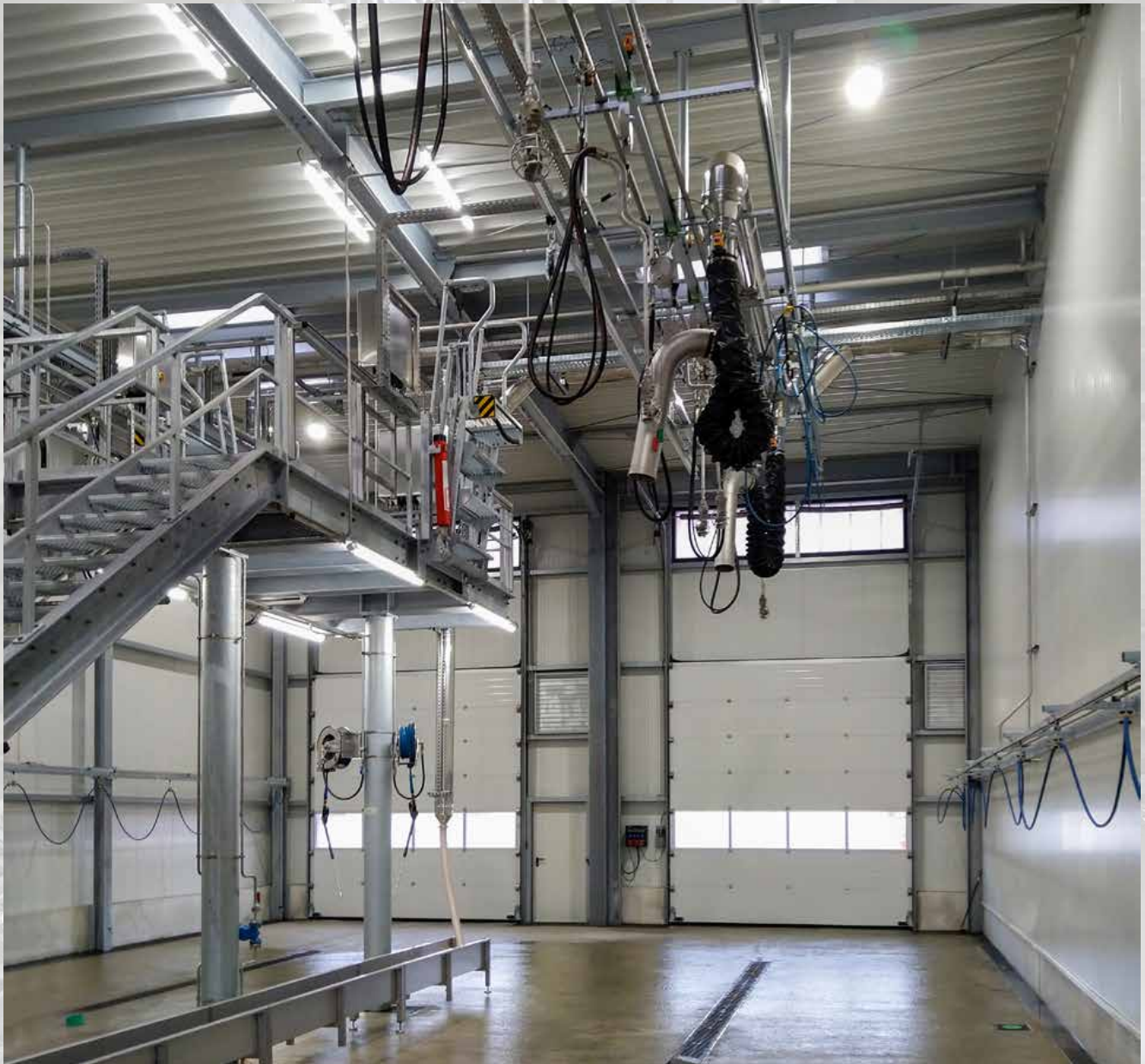
In order to guarantee and maintain a high standard, the depot is equipped with its own waste water treatment system (supplied by Gröninger partner Aaqua) consisting of an influent buffer, a dissolved air flotation system, a biology tank and an effluent buffer. At CoTaLo’s special request, the waste water flow from the food bays can be routed either to the in-house treatment system or to the communal sewer system.

As a proof for qualified work various certifications are included, such as the SQAS, Kosher and EFTCO Food. The company uses sustainable energy and is environmentally conscious. Use is made of an on-site power plant based on Biogas.

In addition to tank cleaning, the CoTaLo depot offers the following services:

- Storage of empty tank containers (to comply with all food safety requirements of food products)
- Repair of tank containers and tank trucks including periodic tests
- Transport of loaded and empty tanks

Gröninger is proud to be chosen as a partner of CoTaLo and the Filzhut group for the supply of this new cleaning station in the manufacturing heart of the Germany. 🇩🇪



Top left: one of the three chemical bays, above the food bays





CSA - AMSTERDAM (NLD)

After 30 years major renovation and expansion

After 30 years of loyal service, the current owner (Argent Energy) of Cleaning Services Argent (CSA) did assign Gröninger the contract to replace all the existing high pressure piping.

The project execution was carried out through detailed consultation by both parties in order to guarantee the shortest possible downtime. The cleaning activities have been expanded with the installation of an extra pump set, so that CSA can now work with four fully equipped cleaning bays. Extra services

were also added to the cleaning during the project: one of these is the possibility to steam the tankers via the rotor jets. Because steaming is included in the existing washing programs, the cleaning time can be reduced so that the tanker truck can get back on the road faster. 🚚

UVENTRANS - SOFIA (BGR)

Bulgarian Pearl

Uventrans is a company based in Sofia (Bulgaria) which has been active in the transport and logistics of food products for more than 25 years.

Uventrans is a company with extremely high standards on quality, professionalism and putting people first. This was evident from the first contact between Gröninger and Uventrans.

A detailed plan was carefully developed to design and manufacture a cleaning system with two cleaning bays. The system has its own steam supply, five rotor jets per cleaning bay and can clean according to the latest standards. In cooperation with owner and initiator Iva Veneva, Gröninger has developed the whole technical plan down to the smallest detail. The result is impressive. With this beautiful cleaning station, Uventrans sets the standard for Bulgaria. 🚚



Tank Cleaning depot GDS (Jubail) finally kicks off

After years of preparation, licensing and construction, the time has finally come; the Global Depot Solutions (GDS) depot is operational. The new full-service depot is located in Jubail - Saudi Arabia and has six cleaning positions.

The majority of the cleaning can be carried out with an efficient standard 100 bar high pressure system. This allows four tanks to be cleaned at the same time using PLC-controlled programs. For the special work, GDS has two heavy-duty washing bays at its disposal.

Right next to the new depot is the Sadara chemical complex. MDI and TDI are produced and shipped in and from this complex. MDI and TDI residues are very difficult to remove from tanks after they have been emptied. One of the solutions is the application of ultra-high pressure. For this application Gröninger included an 800 bar hydro blasting system which, in combination with a rotor jet, removes the product from the tank with extreme force.

A recirculation unit is included for cleaning dried latex and synthetic resins. The products are chemically dissolved and safely removed from the tank.



Waste water is collected and purified in a physical/chemical and biological system. The purified water has such a good quality that it can partly be used again as pre-rinsing water. Excess water is discharged or used for irrigation. 🌱

Pumps built into container



Robotisation of cleaning systems



Robot voor reinigingsinstallaties

Robots have been used in the manufacturing industry for many years. In production processes with a lot of repetitive actions robots enable significant efficiency improvements.

Gröninger follows developments closely. Together with suppliers and customers, the company has looked at the potential benefits of using robotics in cleaning systems.


Robots are particularly interesting for automated systems. An example of this in the cleaning sector is an IBC cleaning line with automatic chain conveyor transport. In such a system, the cleaning robot can be used for:

- Exterior cleaning (of IBCs and/or stainless steel food containers)

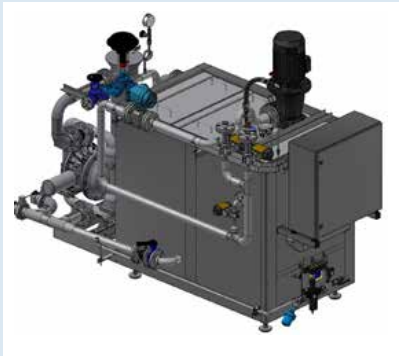
- Label removal (with or without the help of inspection cameras)
- Cleaning of outlets

The washing program itself remains a combination of cleaning chemicals, pressure, time and water temperature. Robots can also be used to dry containers inside and out.

Within Gröninger's field of expertise there are several options to successfully deploy robots. Now that the prices of robots are dropping it is worthwhile to study the possibilities.

Are you curious about the opportunities for your organization? Then please contact Jaap Schokker by e-mail: info@groninger.nl 

Two impressive projects



3D drawing Latex Cleaning Unit

TWZ Group from Evergem has been active in tank and IBC cleaning for many years. Two projects have been completed:

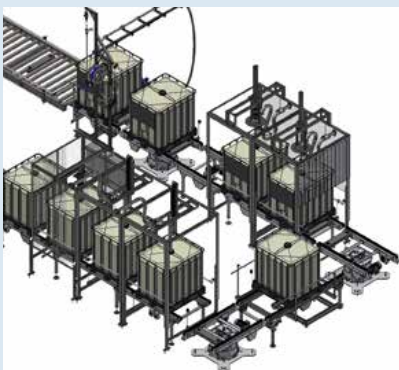
- The existing IBC cleaning system has now been replaced by a new one.
- A latex cleaning unit to clean tank containers with latex residues.

High speed washing, drying and leak testing of IBCs

Through years of experience in the field of IBC cleaning, TWZ knew exactly how the system should be designed.

The system consists of various sections with the following ending:

- Extracting residual product
- Exterior cleaning
- Internal cleaning with 350 bar
- Internal cleaning with 100 bar
- Extraction
- Drying
- Leak testing



3D drawing IBC line


Because the new system works with a higher pressure than before, IBCs with more difficult to clean residues can be cleaned better and faster.

With this high speed cleaning line TWZ is ready for the future!

Latex Cleaning Unit

A circulation system for latex cleaning is positioned under the work platform on both existing cleaning bays.

This recirculation unit cleans heavily contaminated latex containers and tankers by circulating a mix of hot water and cleaning chemical.

Due to the effective process of this system TWZ can now offer customers much faster cleaning than before. And men entry is not needed anymore inside. This ensures a much safer working environment. 



The Rollingswier building in Franeker

LEVO - FRANEKER (NLD)

New IBC cleaning operational

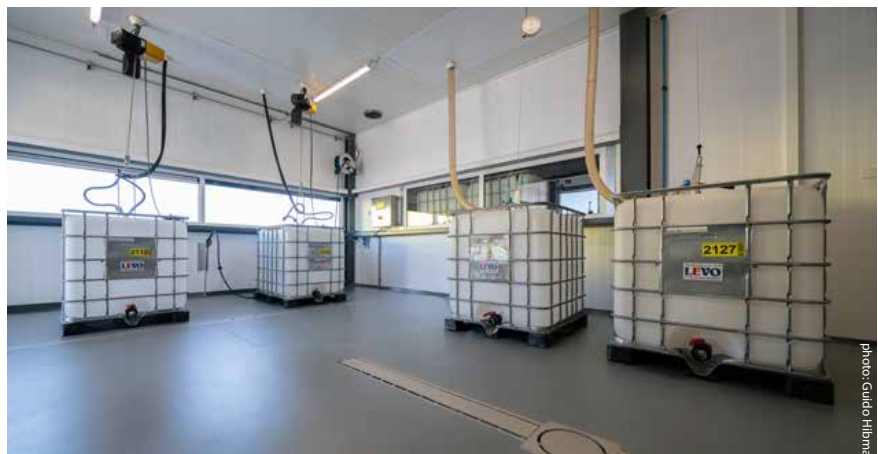
Levo is owned by the Rollingswier family. The company from Franeker has been producing and supplying vegetable oils, frying oils, margarines and sauces to professional hospitality industry since 1916.

Levo uses IBCs to supply products to customer. In the newly built logistics plant, Levo now has a brand new IBC cleaning system built by Gröninger.

The routing of the IBCs was carefully considered during the design of the washing facility. IBCs that have not yet been cleaned are stored outside. In the next step they are transported to an inspection area. The washing and drying area is located directly next to the inspection area.

After successful cleaning and drying, the IBCs are stored inside or are immediately filled with new product.

One of the strong points of this system is data logging, where the cleaning history can be kept per IBC. In this way, the quality of IBCs can be properly monitored. 📊



IBC cleaning system



Technical room



CLEANING VENLO (NLD)

From low to high pressure on all bays

As of early 2020 chemical bays 1 and 2, food bay 5 and a new bay 8 have been equipped with a high pressure system. Tanks can be cleaned with variable pressures and volumes. Until 2017 all bays had low pressure circulation systems, but after successful conversion of the first two bays to high pressure all other bays followed.

Unlike the previous bays, the new pump sets will be able to deliver pressure from 50 up to 200 bar to the rotor jets at the cleaning bays. With these 8 cleaning bays Cleaning Venlo can clean tankers and ISO containers by using high and extra high pressure. 🚧

SCHLICHTMANN - WENZENDORF (DEU)

Separate cleaning bays

Along the A1 motorway between Hamburg and Bremen you can find Truck Service Rade. As part of Schlichtmann Transport, tanks have been cleaned inside and outside here since 2010.

An additional cleaning bay has been created by placing rotor jets on the former exterior washing bay. By placing

a partitioning wall, the cleaning bays are physically separated from each other. In this way food and non-food tanks can be cleaned separately; a common requirement in the food industry. The new rotor jets are fed by the existing pumps in alternating mode. In this way, optimum use is made of the existing high-pressure cleaning system. 🚧



Ongoing projects

- Oil Field Movers – Nairobi (KEN)
- Perna Clean – Maxdorf (DEU)
- RSA Talke – Dubai (UAE)
- Quala – Cincinatti, OH (USA)
- Quala – Chicago, IL (USA)
- Quala – Savannah, GA (USA)
- Cosco – Zhangjiagang (CHN)
- GWC – Doha (QAT)
- All Hub – Mumbai (IND)
- Assam PetroChemical Ltd – Guwahati (IND)
- Freund – Kerpen (DEU)
- Bayarea Terminal LLP – Gujarat (IND)
- NRS – Shunan (JPN)
- Zimmermann – Bitterfeld (DEU)
- Albert Keijzer – Zaandam (NED)
- Greif – Mendig (DEU)



Gröninger Cleaning Systems B.V.

Head Office
 Overschiezeweg 111
 3044 EH Rotterdam
 The Netherlands
 +31 10 437 10 22



info@groninger.nl
 www.groninger.eu
 portal.groninger.nl

Subsidiaries

- Barcelona (ESP)
- Hamburg (DEU)
- Houston (USA)
- Singapore (SGP)
- Shanghai (CHN)

Representative Offices

- Mumbai (IND)



**cleaning
 your
 world**