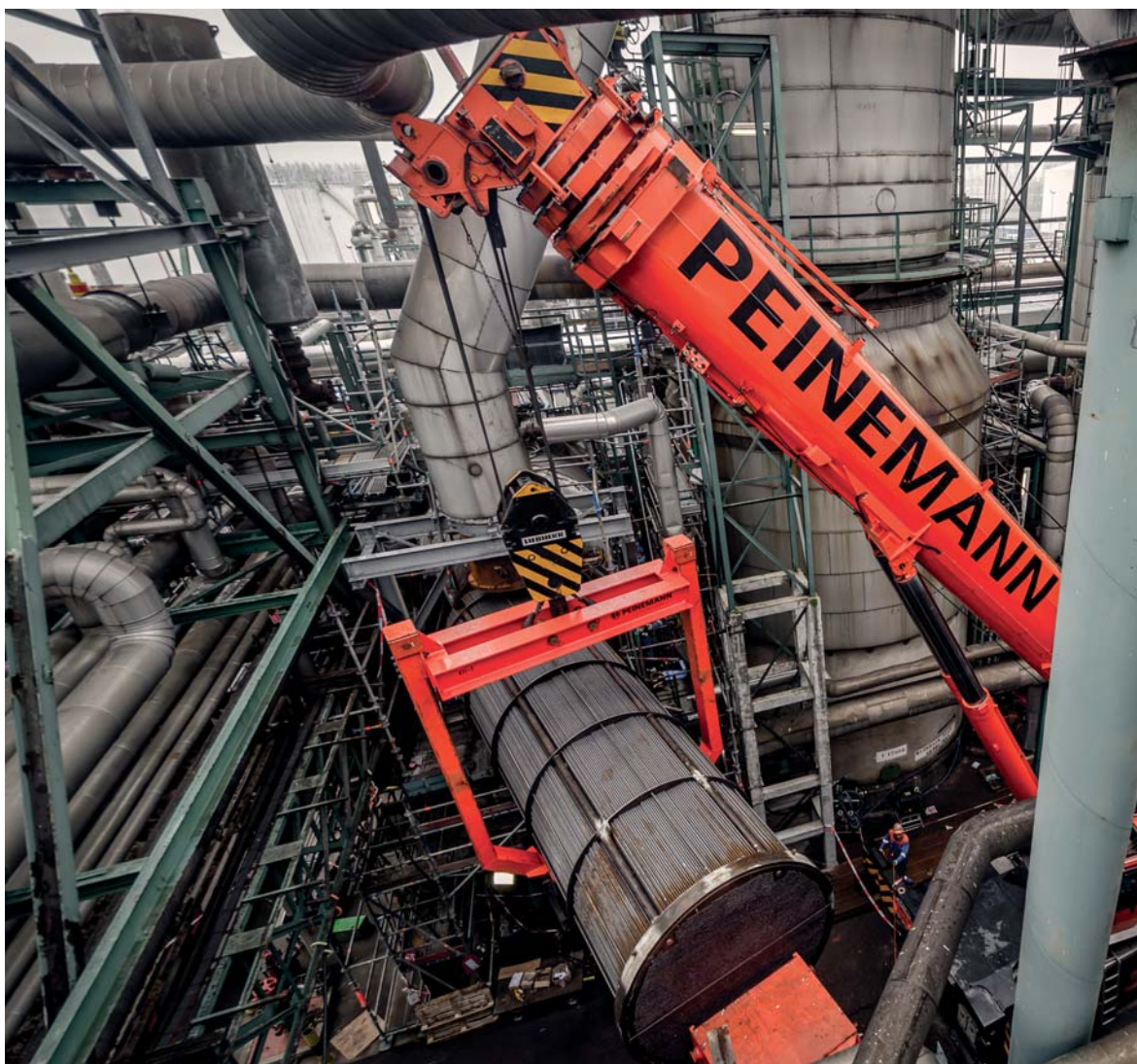


Powerful partnerships: Peinemann's uni

Peinemann Group has been providing rental and service solutions to various industries for almost 70 years. With 16 companies across Europe, Central America, and Africa, Peinemann has established itself as a global leader in equipment rental, sales, and services. Heat Exchanger World spoke with Gertjan van de Werken and Joost Ballieux about the synergy between Peinemann Crane Rental Division and Peinemann Equipment Division, highlighting each division's expertise in bundle extraction and their collaborative efforts to provide innovative solutions to customers both local and worldwide.



Peinemann's journey began in 1954, when Willem Peinemann initiated his equipment rental business in the Rotterdam harbour area by purchasing a forklift and renting out to companies, complete with a driver. Throughout the 1960s, the Rotterdam Europoort area witnessed remarkable development, transforming it into one of Europe's largest ports. At the same time, as infrastructure, container handling capacity, and industrial facilities expanded, attracting global trade and investment, the Peinemann equipment rental venture grew alongside this progress. The company broadened its rental fleet to encompass cranes and access materials for various applications within the refinery and marine industries. Now approaching 70 years of success, the company is led by the third generation of Peinemann, with Sam Peinemann and Ad Kornet as CEOs, and celebrates jubilees every 5 years with the Peinemann Open Day in Rotterdam organised for employees and their families.

Specialists in a niche market

Joost Ballieux (General Manager for Peinemann Equipment Division) and Gertjan van de Werken (Director

of Peinemann Crane Rental Division) have been working for Peinemann Group since 1998 and 1996 respectively. Peinemann Crane Rental specialises in providing crane rental services to the petrochemical industry at Rotterdam Europoort with a fleet of 60 cranes. There is a strong focus on safety and efficiency, and the Division's Director Gertjan emphasises the company's commitment to its customers, stating, "We provide a one-stop-shop service to solve customer problems, leveraging the support of other Peinemann divisions who are able to provide support with aerial platforms, forklifts, container handling equipment and tow tractors. A customer has the support of all Peinemann divisions. We work together to solve our customers' problems."

Gertjan's team actively participates in work preparation, risk analysis, and lifting studies to ensure the safe execution of projects during shutdowns and unplanned maintenance. "We have been growing alongside the Europoort development for 70 years, so we understand the needs of these refineries in a way that not many companies can," says Gertjan. "The majority of our customer base are petrochemical stakeholders, so our cranes are fully equipped for these

fied approach to heat exchanger services



extraction equipment and high-pressure cleaning tools. Leveraging the knowledge gained from Peinemann Crane Rental's experience in bundle pulling, Peinemann Equipment has become a world leader in supplying bundle extractors. The company's database contains precise data of over 25,000 heat exchangers, allowing its team to provide efficient and tailored solutions to customers.

"When those first refineries were built in Rotterdam, they were full of heat exchangers. In order to remove them, we had to visit on-site, look at each location and position, understand their specifics and which crane we should be using for each unit," Joost explains. "So, all of this information has been stored in our system. We're talking details from some of the largest and oldest refineries in the area, with the details of heat exchanger height, length, diameter, and weight. We know whether a certain extractor type should be used, for example, and we even have specially developed tools for some exchangers."

Rising to challenges

The busiest times for all Peinemann entities fall in April to May and September to October, as most refineries shut down for planned maintenance during those periods. The concentration of demand during those times of course puts pressure on the whole workforce of the maintenance sector, however, Peinemann is working to train young talented engineers and operators for multiple equipment types, ensuring they have an agile employee base. "We are seeing a change in the shutdowns, as well," says Gertjan. "When we have to pull or push a bundle, there are very tight time constraints; we'll be operating through a day and a night shift so the customers can get back to production quickly. In the past, refineries gave the order to several mechanical contractors with their own equipment, so for example, to two or three bundle extractors. But now, refineries are giving an order to one contractor for the bundle pulling and pushing for the total shutdown." Peinemann is able to rise to the challenge for even the most demanding contracts, as demonstrated by their work at a refinery in Romania. Over a four-week period, the team used seven of its

applications. We have load cameras in the boom, all our employees are trained for the stringent safety procedures in these industries, and we have a 24/7 call-out service." Joost Ballieux, the General Manager of Peinemann Equipment, leads a team that specialises in bundle



➤ Left: Gertjan van de Werken, Director of Peinemann Crane Rental Division. Right: Joost Ballieux, General Manager for Peinemann Equipment Division.



machines to pull and push a total of 300 heat exchangers, with Peinemann operators. Peinemann faced another significant challenge at the Reliance Refinery in India, where enormous heat exchangers measuring 4.5 meters in diameter and 12 meters in length, weighing 100 metric tons, were located 12 meters deep within the structure. To address this complexity, Peinemann Equipment leveraged the expertise of engineers and technicians from Peinemann Crane Rental. This collaboration resulted in innovative solutions that have been employed successfully at Reliance for the past decade, the longevity of its operation demonstrating the success of the equipment and quality of Peinemann's work.

Synergy and collaboration

The collaboration between Peinemann Crane Rental and Peinemann Equipment is a significant strength for both entities. Their combined expertise in bundle extraction, preparation, rigging plans, and lifting studies enables them to provide comprehensive solutions to customers. The extensive knowledge gained from the Crane Rental Division operating in the field for over 30 years has facilitated the development of innovative tools and equipment by Peinemann Equipment. This mutual exchange of knowledge and continuous improvement ensures that both companies stay ahead and meet the evolving demands of the industry. Joost emphasises the importance of collaboration, stating: "The synergy between our divisions allows us to leverage our combined knowledge and experience to tackle complex projects and provide integrated solutions to our customers." Peinemann Equipment continuously improves their equipment based on the feedback and expertise gained from operating their own machines.

Peinemann encountered a challenging situation at an older refinery in Germany, where the available space for extracting heat exchangers was a mere 5.1 meters, while

the exchangers themselves measured 4.9 metres in length. This narrow margin of just 20 centimetres presented a critical issue. However, through close collaboration between Peinemann Crane Rental and Peinemann Equipment, an innovative tool called the 'crawler' was developed. This mobile extractor, featuring 180-degree turning wheels and a custom-designed integrated winch, allowed the extraction of the full length of the bundle without the need for additional space-consuming equipment. Despite being a prototype, the crawler has been operating flawlessly since 2019, exceeding customer expectations. Joost Ballieux emphasises the significance of Peinemann Crane Rental's expertise, stating, "It's still running perfectly and doing a perfect job for this customer. It showcases Peinemann's ability to leverage its internal resources to deliver practical and effective solutions for even the most challenging environments."

Continuous progression

Over the years, Peinemann has expanded its range of extractors, catering to a diverse customer base. Joost explains, "We've developed a range of extractors from 15 tons to 125 metric tons, so we've gone smaller and a

Peinemann Group company profile

Global employee base: 1100

Dutch employee base: 700

Portfolio of rental equipment: 5500 units, including forklifts, cranes, mobile cranes, access materials, extraction equipment

Activities: Equipment rental, equipment maintenance, terminal maintenance, construction logistics, bundle extraction, industrial and technical (engineering) advice



lot bigger compared to our past range." This expansion is driven by the evolving needs of refineries. Newer facilities require larger extractors, while older refineries, operating in tight spaces, demand smaller sizes.

Peinemann has also made significant advancements in high-pressure cleaning. The company's range of heat exchanger cleaning equipment has grown substantially over the years. Joost Ballieux notes, "When I first started 25 years ago, we had a very minimal range, whereas now, we have a full range of high-pressure cleaning equipment machines to clean inside and outside with rigid and flex lances."

Looking ahead, Peinemann envisions a future characterised by automation and enhanced safety. Joost emphasises the company's goal of achieving full automation in cleaning processes, allowing customers to program their exchangers and initiate the cleaning process with a single button press. Automation is a growing demand among customers, and Peinemann aims to leverage advancements in software and techniques to offer this feature within a couple of years. By embracing automation, Peinemann seeks to streamline operations, enhance efficiency, and improve the overall customer experience.

In line with the industry's focus on safety and environmental sustainability, Peinemann is delving further into safety measures such as ATEX explosion-proofing. Gertjan explains that customers and legislators are increasingly cautious about explosion-proofing, prompting Peinemann to develop extractors that adhere to these stringent safety standards. Furthermore, Peinemann recognises the global transition towards green energy and aims to contribute by exploring alternative energy sources for its extractors, such as electric/battery-powered or hydrogen-driven options. While challenges exist with hydrogen due to its high pressure and explosion risks, Peinemann is committed to reducing energy consumption and emissions, aligning with the industry's sustainable direction.

Gertjan also highlights Peinemann Crane Rental Division's goal of providing a total package for bundle handling equipment during shutdowns. By offering a comprehensive solution that includes bundle extractors, furnace tube extractors, transportation, bundle lifters, and more,

Peinemann aims to reduce waiting times and improve the overall customer experience. This self-reliance and commitment to continuous improvement and safety set Peinemann apart as a leading service provider in the market.

"We will be totally self-reliant. In our rental fleet, we currently have eight bundle lifters specifically for the cleaning slab and we see that these are really popular in the Netherlands, Belgium and Germany," says Gertjan. "Quite a number of our extractors have also been converted into combi-lifter extractors, so the heat exchanger can be removed after the pulling with the blades of the lifter on a trailer."

Focus on safety

Peinemann's dedication to safety is unrivalled. With a history of setting high safety standards, the company is regarded as a safety reference point in the heat exchanger sector. Gertjan van de Werken proudly states, "We have always been ahead in terms of safety." This commitment is exemplified by the continuous focus on enhancing safety measures, pushing the standards higher, and ensuring that operators receive regular training to stay up to date with the latest practices.

The Peinemann team of operators has extensive experience and knowledge, which are valuable assets in training customers abroad. Skilled operators with decades of experience become in-house trainers, sharing their expertise and insights on the unique challenges of pulling out different types of exchangers. The opportunity to exchange knowledge with customers is highly – "We have some customers, for example in the UK, who insist on having Peinemann operators in their shutdowns to pull their bundles," says Joost.

As the one of the largest bundle extraction equipment rental companies in Europe, Peinemann continues to strive for excellence and innovation in its services. With a focus on safety, automation, and environmental responsibility, the company remains a trusted partner for heat exchanger solutions both now and in the future. Approaching 70 years of operation, Peinemann's dedication to providing exceptional service and cutting-edge equipment continues to drive the company to many more jubilee celebrations. ■