

Klinger News 05/2014

The Growth Edition



Strategic acquisitions

Klinger International GmbH

The past six months have been very eventful for Klinger International Management GmbH, with acquisitions of three companies that play leading roles in their respective target markets.

Proseal, based in Ploiesti, Romania, provides the local oil and gas industry with a broad range of sealing materials, and plans to expand to supply shipyards in the eastern part of the Danube Delta.

In addition, Proseal installed gasket manufacturing equipment with the technical assistance of Klinger UK, ensuring thus the highest quality standards that customers worldwide have come to expect from Klinger's metallic gaskets.



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When acquired late in 2013, Advanced Technical Services was operating out of Baton Rouge, Louisiana. As part of the integration process, the company has moved into brand-new premises in Houston, Texas, which is an ideal location to serve oil and gas end users, as well as their contracted EPC's with technical solutions involving valves and actuation.

The largest new arrival to the Klinger Group is Westad, a butterfly valve manufacturer based in Geithus, Norway.

Supplying the most demanding applications in LNG, LPG and LNE tanker systems, as well as LNG liquefaction and storage facilities, Westad has developed a significant presence among a global customer base.

"The Klinger Group is pursuing the strategy of investing in companies that serve high-end niche applications. All of our acquisitions fit perfectly with this strategy and help us increase our foot-

print in these target markets," explains Chris Klinger-Loehr, Director of Business Development.

For further information about Klinger International GmbH please visit www.klinger-international.com.



Acquisition of Beta Instruments ApS

Klinger Danmark A/S

On 1 January 2014, Beta Instruments Ltd. merged with Klinger Danmark A/S. With this acquisition, Klinger Denmark strengthens its activities in the area of process instrumentation.

As part of this merger, all the employees of Beta Instruments have been taken over by Klinger Denmark. The former owner and CEO of Beta Instruments Ltd., John Sørensen, has also joined Klinger Denmark and is now engaged as a product specialist in the area of process instrumentation.

The locations were combined at the current Klinger Denmark site in Brøndby. The former Beta Instruments employees form a team together with Allan Preisler, our specialist for fluid level measurement.

Klinger focuses on the areas of valves, instrumentation, gaskets and seals. The company not only distributes its own products but also products manufactured by third parties. The aim is to find the best possible solution for each application.

This ensures we can offer our customers comprehensive solutions. Many customers prefer to reduce the number of suppliers they use, and Klinger is helping them to do this by offering an expanded range of products.

“At present, we are generating approximately 60 % of our sales from retail products. This proportion is, however, declining as Klinger actively pursues its strategy of acquisitions,” states Klavs Knutzen, CEO of Klinger Danmark A/S.

While Klinger didn't cover other areas of instrumentation in the past, it has always been active in the area of fluid level management. A Klinger liquid level gauge was also the first product that Klinger obtained a patent for more than 125 years ago.



Klavs Knutzen and John Sørensen

Today, Klinger is one of the top three leading manufacturers in the area of liquid level gauges.

To serve the market in the area of instrumentation, we sought out a company that specialises in pressure, temperature and flow measurement. Beta Instruments combines years of relevant experience and know-how with high product quality, and the company fits perfectly with Klinger.

The area of fluid level measurement is also strengthened by Beta Instruments. We now cover the entire range from simple float to magnetic level gauges as well as high-precision radar level meters.

The merger enables Klinger Denmark to cover further market areas, and the know-how of Beta Instruments employees further allows us to offer our customers the best possible solution from a variety of products.

“Our customers also benefit from the merger of Klinger Denmark and Beta

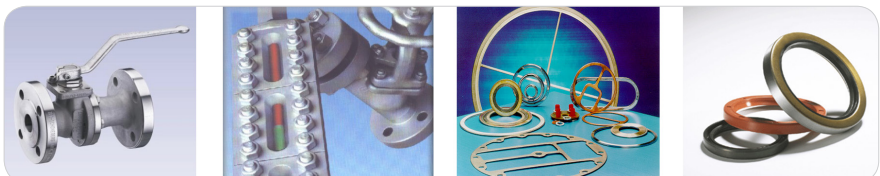
Instruments. To take better advantage of these benefits, we will add two further employees to the instrumentation department. This will enable us to deal with promising wireless technologies,” says Klavs Knutzen.

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John Sørensen also considers the merger of Beta Instruments and Klinger Denmark a major benefit.

“Beta Instruments is now part of a successful, well-run organization with more than 2,000 employees, and 40 of these in Denmark. Both Klinger and Beta Instruments are well-known in their areas and have been around for years. This merger enables the new organization to serve a larger market. There is also already a great deal of interest in the expanded product offering from existing customers,” says John Sørensen.

For further information about Klinger Danmark A/S please visit www.klinger.dk.



The Finnish Klinger companies unite

Klinger Finland Oy

2014 began with some exciting changes for the Finnish Klinger companies as the subsidiaries Aseko Oy, Klinger-Ramikro Oy and Meckelborg Oy merged into Klinger Finland Oy on 1 January.

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The former subsidiaries then became business units of Klinger Finland and their company names, which have been synonymous with expertise and quality in their respective business areas in Finland for decades, will remain in use as auxiliary business names.

Aseko, Meckelborg and Ramikro have operated under their former parent company since 2000, and they have been



located at the same site for more than 20 years in Masala, some 30 km west of Helsinki. So the merger was a natural step in the evolution of Klinger Finland. It also provides an opportunity for the companies to adopt Klinger's new visual identity and mark the start of a new era at the company.

Markku Ivanoff, former Managing Director of Aseko Oy, has been appointed



Part of the Klinger Finland staff

Managing Director of the new Klinger Finland Oy. He also remains in charge of the Aseko business unit, which specialises in the distribution of industrial valves, actuators, automation components, surveillance systems and measuring instruments.

Robert Plyhm was appointed the Executive Vice President and remains in charge of the Meckelborg business unit, which is an expert in product marking solutions. He has also taken responsibility of the industrial seals and gaskets business unit Ramikro, as Ramikro's former Managing Director Raimo Myllymäki retired this year at the end of January.

Mr Myllymäki does not plan to leave the world of sealing entirely behind, as he

will stay on as a part-time consultant for the company.

Klinger Finland Managing Director, Markku Ivanoff, comments on the merger: "Our aim is not just to provide the right products to meet our customers' needs but to work in cooperation with them to create comprehensive solutions that will help their businesses to run more reliably."



With the new, unified Klinger Finland, it will be easier for us to do this across all our business units. Together we can provide our customers in Finland something that no other company in our markets can provide."

For further information about Klinger Finland Oy please visit www.klinger.fi.

Acquisition of Baars Group

Klinger (Pty) Limited, South Africa

In October 2013, the entire Baars Group was bought by Klinger (Pty) Ltd. The acquisition brings together two industry leaders in the areas of fluid control (Baars) and fluid sealing (Klinger) in southern Africa, and it creates natural synergies that will enable both companies to provide a more complete product offering to their customers.

“We were aiming to expand our operations in South Africa and, aside from looking north of the border for growth opportunities, we searched for another product group. Klinger hasn’t expanded into the valves market in South Africa and we started looking for a suitable acquisition. At the top of the list was Baars Group, which has an excellent product portfolio,” Klinger CEO Andre Goosen explains.

Mynhardt Baars, Managing Director at Baars Group, is confident that the acquisition will stimulate new ideas and create a united front in the market. “We want mutual benefits to overlap between the companies,” says Baars. “There will be improvements and what we learn from Klinger’s methods will help ensure a healthy future. In addition, our products are value for money.”

Goosen adds that there will be opportunities to add more products to Baars’ valves portfolio, as Klinger Europe is renowned for the manufacture and sales of a wide variety of fluid control products.

“The two companies are regarded in the marketplace as suppliers of high-quality, fit-for-purpose products. We like to offer engineered solutions for customers’ problems and needs. Customers in the Democratic Republic of Congo and Zambia want suppliers to provide a broader range of products. The companies’ products are synergistic, and this acquisition enables us to offer our customers a wider range of products,” Goosen concludes.



Front: Mynhardt Baars (Current Managing Director and son of founder), GC Baars Snr (Founder of GC Baars), Andre Goosen (Managing Director at Klinger)
Back: Johan Smal (Financial Director at Klinger), David Boers (newly appointed GM of Baars)

Klinger will continue to run Baars as an independent company, owing to its good reputation. The acquisition will be used to leverage more opportunities in the marketplace and provide a more consolidated approach to customers of Klinger and Baars.”

For further information about Klinger (Pty) Limited please visit www.klinger.co.za.

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G C Baars (Pty) Ltd was founded in 1970 and specialises in the marketing and distribution of a variety of industrial valves and allied equipment.

In the following years, several companies have been founded to provide service and products to customers:

- 1973 Valvecraft in Durban
- 1978 Valvetech (Cape) in Cape Town
- 1985 Highveld Instrumentation
- 2003 Valvecraft (Richards Bay) in Empangeni
- 2003 Valvecraft (East Cape) in Port Elizabeth
- 2011 Baars Valve Projects & Baars Valve Sales

Saidi opens new office in Mexico

Saidi, Mexico

Since last January, Klinger has had a local presence in Mexico, through a subsidiary company of Saidi.



Chris Klinger-Lohr, Leticia Alves and Javier Pérez

Mexico is also an open economy that guarantees access to international markets through a network of free-trade agreements. The country boasts a strategic geographic location and competitive costs to service global markets. It also has an important pool of young and highly-skilled human capital.

The economy of Mexico is the 14th largest in the world in nominal terms and the 10th largest by purchasing power parity, according to the World Bank. The economy contains rapidly developing modern industrial and service sectors, with increasing private ownership.

Recent administrations have expanded competition in ports, railroads, telecommunications, electricity generation, natural gas distribution and airports, with the aim of upgrading infrastructure.

As an export-oriented economy, more than 90 % of Mexican trade is under free-trade agreements (FTAs) with more than 40 countries, including the European Union, Japan, Israel, and much of Central and South America.

Our major customers in Mexico:

- Abengoa
- Acciona
- Cobra Dragados Industrial
- Duro Felguera
- Iberdrola
- Isolux Corsán
- OHL
- Sener

Saidi's new headquarters in Mexico are located in the industrial area of Antara-Polanco in Mexico City, which is close to offices of the major Spanish and Mexican companies managing engineering and development projects in all the major industries in the country (e.g. Power / Thermolectric / Refining / Combined Cycles / Solar Thermal / Water / Gas Supply / Mining / Chem & Pharma, etc.).



Mexico is one of the most competitive countries in the world for productive investment due to its macroeconomic and political stability, low inflation, the size and strength of its domestic market, its economic growth rate, and its capacity to produce advanced manufacturing (high-tech products).



Saidi's new headquarters in Mexico

Local customers:

- Pemex (Petróleos Mexicanos)
- CFE (Comisión Federal de Electricidad)
- Conagua

Saidi's new headquarters in Mexico is located in the industrial area of Antara-Polanco, Mexico DF.

For further information about Saidi Mexico please visit www.klingersaidi.mx.

Location

Avda. del Ejército Nacional, 843-B
Torre Corporativo, 1 - 5º Piso
Col. Granada, Del. Miguel Hidalgo
CP 11520 Antara (México)

info@klingersaidi.mx

New JA Harrison production facility

Klinger Limited, United Kingdom

Klinger is proud to have been invited recently to the opening of the new JA Harrison production facility in Manchester, England.

“The facility will serve as a centre of excellence for engineered PTFE sealing products, as well as a demonstration workshop for our clients. Purpose-built machining equipment and an optimised workflow will support even quicker response times in emergencies, allowing us to move increased volume overnight and therefore further reduce our customers’ downtime costs.

All in all, we expect considerable gains in supply efficiency, an aspect that is again becoming more important among the UK’s sealing customers,” says Keith Shepherd, Managing Director at JA Harrison.



Keith Shepherd with his parents and management team, Alan Bates and Chris Klinger-Lohr

nities both in materials and geography. Seeing this facility going operational gives us confidence that JA Harrison will remain a leading supplier of speciality sealing products for many years to come.”



For further information about Klinger Limited please visit www.klinger.co.uk.

“Being invited to this inaugural ceremony means a lot to us,” adds Alan Bates, Managing Director at Klinger UK, who attended the event with Chris Klinger-Lohr, Director of Business Development for Klinger International.

“Not only has JA Harrison been a key account for Klinger sealing materials for many years,” states Klinger-Lohr, “the company also embodies an entrepreneurial drive to explore new opportu-

Surge protection and flow control experts

Rich. Klinger S.A.A.C.I. y F., Argentina

By Luis Conti

Surge pressures occur every time a pump starts or stops, and the bigger the system, the greater the risk a pipe could burst.



In 2012, the engineering department of Klinger Argentina's Water and Waste Water division was commissioned to carry out the surge analysis for the upgrade of an existing 100-km water main line in the state of Chaco, located in northern Argentina.

The upgrade consisted of an in-line pumping station (booster pumping station) to increase the flow of the main line between the original pumping station "La Escondida" and the final reservoir "Saenz Peña" located 98 km away. This aqueduct consists of a 700 mm diameter reinforced concrete main line with several decades of service.

Due to the age of the system and the pipe material, a thorough surge analysis was required to avoid any risks of pipe rupture or pipe fatigue that can occur over time as a consequence of transient pressures.



This aqueduct is currently the only water main line that transports potable water for the inhabitants of the Chaco province.

Every water system is unique, a mathematical model needs to be built and run based on water hammer theory to study the propagation of surge waves when a pump stops. Klinger's engineering department has over a decade of experience carrying out these types of studies, not only in Argentina but also in other Latin American countries.



Since the terrain along the Chaco aqueduct line is predominantly flat, the main problem was down surges (negative pressures). Pipe materials vary in their capacity to withstand down surges, in this case the reinforced concrete pipe had an internal concrete lining that could be damaged by small negative pressures.



After building the model using KYPipe SURGE 2012, a world leading transient modeling software, several scenarios



were run with different surge protection devices to find the most adequate and cost effective combination of devices.

Since negative pressures needed to be avoided, surge compressor vessels (hydro-pneumatic tanks) were included in the analysis, but the total tank volume needed to protect the system was high.

Pump control valves were then included in the analysis, the result was that the total tank volume was reduced significantly without reducing or compromising the surge protection effectiveness.

The cost reduction was obtained not only in the number (volume) of surge compressor vessels, but also by the fact that no check valves were needed since the type of pump control valves recommended (DN 500 mm Singer Valve 206-BPC booster pump control valve) have a check valve feature incorporated.

Klinger Argentina benefited greatly from carrying out the study. In 2013, the company successfully provided all the pump control valves, air valves, electrically actuated butterfly valves, and electromagnetic flow meters for the new booster pumping station.

For further information about Rich. Klinger S.A.A.C.I. y F. please visit www.rklinger.com.ar.

Video “Manufacturing of sealing sheets”

Rich. Klinger Dichtungstechnik GmbH & Co KG, Austria

The manufacturing of sealing sheets is a multi-stage process whose structure is hardly known to customers. All of the steps will be explained to visitors to the plant (such as customers or meeting participants) in the course of a plant tour.



A sealing sheet is removed from the calender

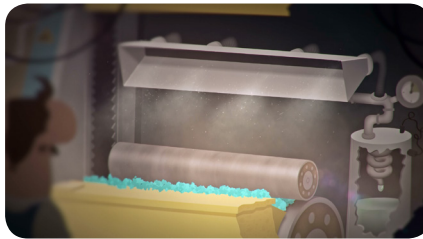
Beginning with raw materials storage, you follow the material flow through the production hall. You can see how the components are mixed and how the wet mesh is processed in the calender. There is also a visit to the laboratory, where numerous tests are performed on sealing sheets from each batch.

Here, you quickly face several challenges:

- How can visitors absorb all relevant information despite the high noise level?
- How do you explain parts of the production if the machines in question are at a standstill (for example, due to service work)?
- Is there sufficient space for large groups (up to 30 people in the course of meetings)?
- Is the safety of all persons (visitors and employees) guaranteed?
- Can production continue undisturbed?

The answer to these questions was determined during the production of a video about the manufacturing process. The video, which is approx. 5 minutes long, explains through some animation and some real film all of the steps that

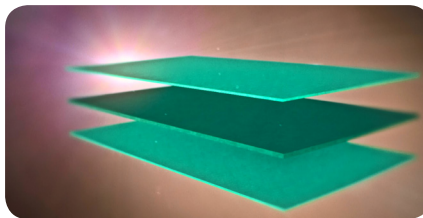
are required for the manufacturing on through to the shipping of the sealing sheets. In the future, this video will complement plant tours. While visitors will continue to visit the laboratory, the production area will be explained primarily by the video.



Depiction of the calender including solvent recovery in the video

The following topics are treated in the video:

- Description of the components of sealing sheets
- Mixing of the components
- Structure of a sealing sheet
- Function of the calender
- Cutting and printing the sealing sheets
- Packaging and shipping
- Recycling of material remains and solvents
- Quality management (use of bar codes and checks during the entire process, quality assurance through batch numbers and laboratory tests)



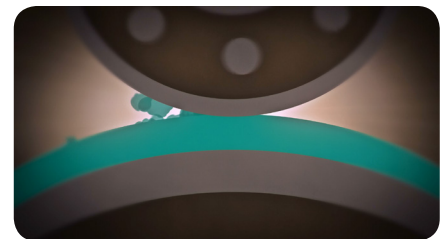
Layering of a sealing plate

The video distinguishes itself through the following characteristics:

- The description of the manufacturing is done independently of the production in the plant.
- Significantly more information is communicated. The solution process during mixing is also depicted, as are

the processes in the roll gap and solvent recovery. If necessary, the video can be stopped in order to explain the processes shown in more detail.

- The presentation is designed in state-of-the-art fashion with the use of current media. Thanks to the combination of animated sequences and scenes from the production hall, the viewers’ attention is also increased.
- Viewers receive insight into areas that are not directly visible in the production hall (mixing of components, area between the rolls)
- Thanks to the explanation of the manufacturing process alongside production, visitors can receive all information in peace and without any endangerment.
- Production can continue to run undisturbed even with large groups of visitors



Depiction of the roller gap of a calender

An area of production will be adapted and outfitted with corresponding equipment (screen, headsets, etc.) for the presentation. This area offers a view of the calender, thus connecting the depiction in the film with the manufacturing of the sealing sheets in the production hall.

All work will probably be completed in May. By then, the currently-available German version of this video will be supplemented by an English version.

For further information about Rich. Klinger Dichtungstechnik GmbH & Co KG please visit www.klinger.co.at.

EMAS and ISO 14001 certifications

Klinger Fluid Control GmbH, Austria

EMAS and ISO 14001 certifications for Klinger Fluid Control GmbH strengthen commitment to eco-friendly operations.

After successfully implementing a comprehensive eco-management and audit plan, Klinger Fluid Control is now EMAS-certified. With this EU eco-certification, Klinger Fluid Control strengthens its commitment to continuous improvement in the area of environmentally-friendly handling of all projects and activities.

The EU Eco-Management and Audit Scheme (EMAS) is a voluntary management tool for companies open to all economic sectors, as well as both public and private services. Companies participating in EMAS are committed to publish an environmental statement which reports on the implications of the company's activities on the environment, its environmental performance

and its environmental goals. The results are examined annually by an external peer reviewer.

Products of Klinger Fluid Control contribute a great deal to environmental protection. To further strengthen our focus in this area, an audit was also carried out by TÜV Austria, and Klinger Fluid Control is now certified in line with the ISO 14001 standard, which also covers legal compliance.

The new certifications have been integrated in the current ISO 9001 quality management system and further demonstrate that Klinger Fluid Control is fully committed to environmental protection and high ecological business standards.

For further information about Klinger Fluid Control GmbH please visit www.klinger.kfc.at.



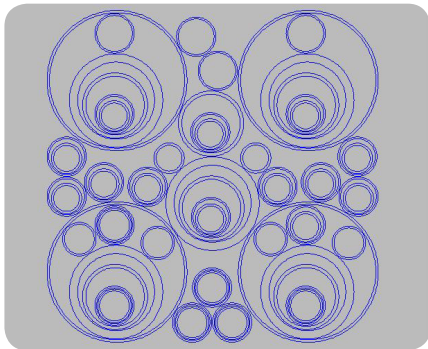
Klinger Fluid Control with the certificate awarded by TÜV Austria
Robert Cerny, Head of Quality, Safety and Environmental Management and Siegfried Pfeiffer, Quality Assurance

Material savings thanks to the use of software

A. W. Schultze GmbH, Germany

The manufacturing of soft seals is done by cutting or punching sealing plates. Due to the various seal shapes, scraps are necessarily generated. The larger the scrap, the more plates are required, and this cuts earnings.

To optimise material usage, nesting software (already familiar in the textile industry) is used at A. W. Schultze. This software arranges the required seals on the sealing plate so that as little scrap as possible is generated.



Output of the files in the DXF format

The cutting information gained this way can be passed along directly to a cutting plotter. Alternatively, the information can also be output as a CAD file.

The software used, Fast2Plot (website: www.fast2plott.com), is freely available on the market. It has already been installed more than 40 times in Germany and it is used successfully in the area of seal production.

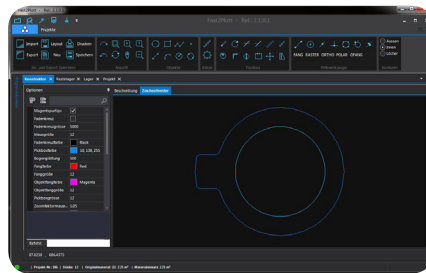
By default, it offers interfaces to Atom and Aristo cutting plotters. A simple yet high-performance 2D CAD tool is also integrated, as are interfaces to common programs.

Input and output in the familiar DXF exchange format makes it possible to use already-existing design data.

Another function of the software is the calculation of material and plotter hour costs based on data that is stored in the

software. This information can be used as a basis for calculation.

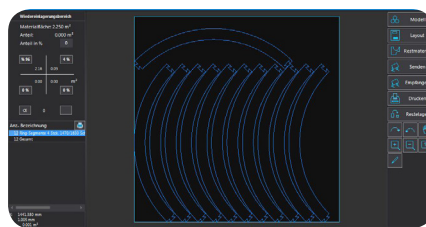
In addition to entire sealing plates, scraps (esp. blanks from previous jobs) can be managed. These can be selected as base material, which results in additional material savings.



Complete 2D drawing program, optimised for drawing contours

In addition, thanks to the good contact of A. W. Schultze with the programmers, it has been able to influence the development in order to further increase benefits for users.

With the use of nesting software, a material saving of between 4 and 5 % can be achieved. In practice, significantly higher savings have also been achieved. Thus for one job at A. W. Schultze in 2012, 60 sheets were calculated manually; with the software, however, the number was only 53. The savings achieved this way amounted to nearly 12 %.



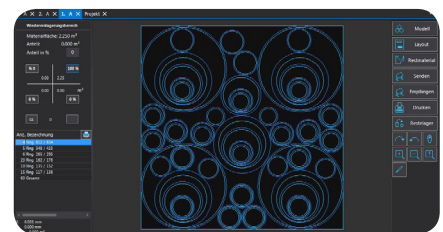
Segmented rings after nesting

Another advantage is the simplification of seal production. No time is required to set up the cutting plotters since the data is taken over directly from the software.

In addition to use in connection with cutting plotters, the software can also

be used with water jet cutting systems (under some circumstances an appropriate interface has to be programmed).

The industry-spanning use of state-of-the-art software in production thus allows material savings, which not only reduces the costs for the manufacturer and customers, but also saves raw materials and reduces the quantity of waste. With our continuous improvement process, we try to continually optimise our processes in order to reduce costs and make our contribution to sustainability. The program helps us a lot with this.



Nesting model, depicted in the document area of Fast2Plot

For further information about A. W. Schultze GmbH please visit www.awschultze.de.

TAR Alliance - Together Achieving Results

Kempchen Dichtungstechnik GmbH, Germany

In all areas of industry it is true that stopped machines generate costs – costs which even in the medium term can reach relevant orders of magnitude.

Every operator wants to operate his system as cost-efficiently and productively as possible. To do this, it is necessary to keep downtimes to a minimum. This means that maintenance work must be well-planned and unforeseeable stoppages must be avoided if possible.

Due to the specific requirements of each system, previously it was only possible to develop solutions individually in the course of independent projects in each workshop.

In the past, companies joined together in order to exchange information and find solutions jointly.

Since participants were often competing companies, however, there was a great risk that hardly any real results could be achieved during the annual meetings.

To preserve competitive advantages, less information was shared and the meetings served, among other things, more to present one's own company than to solve problems. Such groups produced only a few helpful insights.

Kempchen Dichtungstechnik, together with five other companies, is pursuing an entirely different approach with the formation of the TAR Alliance.

This alliance unites not competitors, but rather companies that are active in a wide variety of areas of the chemical, petrochemical, and process industries.

Each of these companies specialises in a certain area, so the participants complement each other ideally. This allows good and productive cooperation in order to optimise downtimes.



The TAR Alliance consists of the following six members:

- AS Bauer: Occupational safety, environmental and health protection, e-learning
- Kempchen Dichtungstechnik: static sealing technology
- Metlog: manufacture and logistics of all industrial connecting elements including metallic turned, milled, and special components
- PrimaTasc: software for TA management focusing on scheduling and controlling
- Rockwool Technical Insulation: world market leader for rockwool; optimisation of the energy efficiency of systems using the Rockassist software tool.
- TechDo: technical system documentation, downtime management, process optimisation

The first meeting was held in November 2013, and it was extremely positive and constructive.

The work of the TAR Alliance is oriented according to the following basic points:

- Cooperation of various complementary companies and exploitation of synergies in order to find solutions jointly
- Uniting of state-of-the-art professional expertise
- Examination of problems from various angles in order to find and implement innovative ideas
- Regular meetings in order to solve problems quickly
- Provision of a team of specialists with an expert contact person on-site

Thanks to the cooperation of companies from different, complementary areas, the TAR Alliance offers the unique opportunity to jointly find optimal solutions for organising downtimes and exploiting existing savings potential.

For further information about Kempchen Dichtungstechnik GmbH please visit www.kempchen.de.

Distinction as „Disabled-friendly employer“

On 18 November 2013, Kempchen Dichtungstechnik GmbH was presented with the „LVR title Disabled-friendly employer“ by the Landschaftsverband Rheinland (LVR).

The sealing technology company employs an above-average number of disabled people. 29 of the company's 225 employees are severely disabled. These include deaf people, but also people who have mental and physical limitations. Thus this Oberhausen company achieves an above-average employment quota of 13 %.

EHSS & Reliability Days

Saidi, Spain

Saidi participated in EHSS & Reliability Days hosted by SABIC on 12-14 November 2013 in Cartagena, Spain, where Saidi presented its most recent products.

The meeting of Chemistry and Innovative plastics, known as EHSS (Environmental, Health, Safety & Security) & Reliability Days, provides companies in the industry a forum in which to share their products and news.



Rafael Quiñero and Antonio López

Saidi product managers David Soler and José María Baró, a specialist in sealing solutions, had the opportunity to talk about process valves and sealing technologies, and their presentation generated a considerable amount of interest from attendees.



SABIC, headquartered in Riyadh, Saudi Arabia, is one of the world's top-six petrochemical companies and is the largest non-oil company in the Middle East.

SABIC is the world's largest producer of methanol, granular urea, mono-ethylene glycol, MTBE and engineering plastics, as

well as the third largest global player in polyethylene and fourth largest in polyolefin and polypropylene products.



In Europe, SABIC is a major producer of plastics, chemicals and innovative plastics, and it employs nearly 6,000 people. SABIC's strategic business unit, Innovative Plastics, has its main European office in Bergen Op Zoom, Netherlands.



Sales of plastics and chemicals are managed via an extensive network of local sales offices throughout Europe, while the main manufacturing and research facilities are based at several locations in the Netherlands, Germany, the UK, Italy, Austria, Belgium and Spain.



*"Dear friends,
On behalf of SABIC Cartagena, I want to thank you for your support and many efforts to make EHSS & Reliability Days a hit with our employees and contractors. You have helped us raise a little more awareness at the site with regard to achieving our goals in these two key functions on a sustainable, long-term basis. Please share this thank-you with your colleagues in your organization who collaborated with us during the past week. Thank you very much!"*
Alfonso C. García Díaz, Reliability Leader, Innovative Plastics

"The impression is that the event was very successful. SABIC's plant has very complicated processes, particularly with regard to corrosion and abrasion. I had the opportunity to talk about process products (Saunders, XOMOX, Krombach, etc.), and we found that SABIC was pleasantly surprised by our glass-lined diaphragm valve, as well as the solutions we provide in metal-to-metal ball valves for applications up to 600 °C"

David Soler, Product Manager

For further information about Saidi please visit www.saidi.es.

Offshore sealing solution

KLINGER Limited, United Kingdom

When Mark Williams, technical manager at Klinger UK, took a call to discuss how to create a seal on a problematic weir plate, he didn't anticipate that inside of two weeks he would be boarding a Puma helicopter to follow up on his recommendations.



Mark Williams

Mark Williams has completed his offshore training and was therefore available to travel to Maersk Oil's Janice platform in the North Sea.

Klinger UK was asked to help to create a plan to seal a weir plate during an emergency shutdown of the platform. Working with Maersk Oil's technical authority, Steve Bage, Mark Williams led Klinger's efforts to develop a number of seals for the plate.

A weir plate is used to separate oil and water in the separator that isolates gas, water and oil. The weir plate used on the Janice platform involved an assembly of seven sections of folded stainless steel plates bolted together and then bolted to the inside of the separator vessel body.

The intersections between the plates were historically sealed with rubber but with limited success, as the plates and rubber seal are subjected to crushing and extrusion.

The resulting leakage past the plate reduces the vessel's efficiency, and as a result the platform is forced to run at reduced capacity.

The reinstatement of the weir plate was critical to restoring the platform to full operation, Maersk Oil requested onsite technical support to provide advice on the installation and offer immediate assistance if any problems arose.

Klinger UK's expert Mark Williams was thus based on the platform in the North Sea for nine days in January while the separator was dismantled, reassembled and tested.

The weir plate's joints between the plates were not only difficult to seal but the bolt holes also had to be sealed. Klinger recommended that the customer use Sealex between the individual plates, as well as between the plate and the support stand in the vessel.



Janice platform

Klingersil C-4430 was also used between the plates and the large washers used to cover the 50-mm diameter holes in the plates to prevent the passage of water through the bolt holes.

After careful alignment of the plate within the vessel, the plate was sealed with no sign of leakage through any of the joints or bolt holes – something most initially thought impossible.



If you would like more information about this article or further technical assistance, please contact allintechanical@klingeruk.co.uk.

For further information about Klinger Limited please visit www.klinger.co.uk.

Klinger UK enjoys a successful Gastech 2014

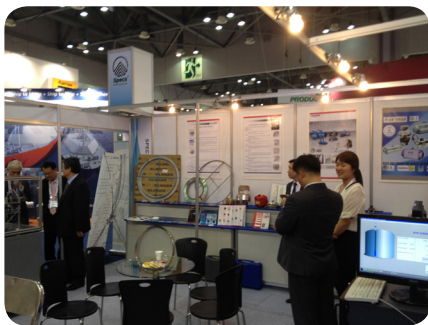
Klinger Limited, United Kingdom

Klinger Projects Manager Oliver Bache recently returned from Gastech 2014 in South Korea, and reported on a very successful conference and exhibition.

Gastech brings together end users and contractors from around the world with suppliers in the natural gas and liquefied natural gas industries.

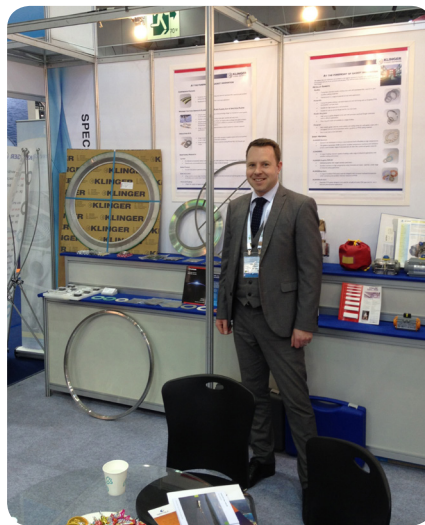
“The Korean market has become one of the world leaders among EPC contractors and represents an important market for the Klinger Group. I look forward to following up on many of the contacts I have made during my next visit to Korea.”

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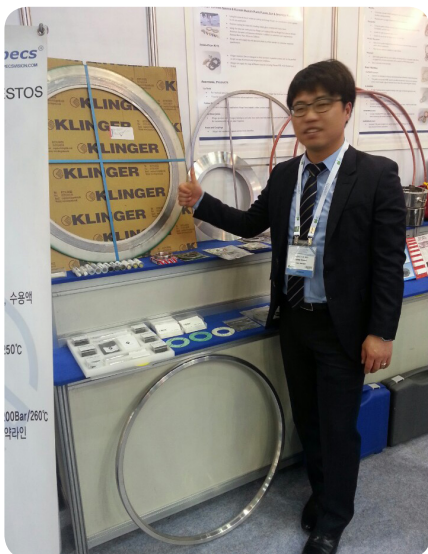
Klinger booth at Gastech 2014

The Klinger booth, which was hosted by our Korean partner Specs Corporation, was located centrally and surrounded by major names from the industry such as Sonatrach and BP. Held on 24-28 March, this was Gastech’s first exhibition in East Asia.



Oliver Bache, Klinger Limited

The exhibition provided a way to test the market and interact with engineers with regard to Klinger UK’s latest innovation, the Gasket Insertion Tool, which is designed to increase safety and reduce improper fit of ring joint gaskets in subsea applications.



Vicman Lee, Specs Corporation,

Watch for more about the Gasket Insertion Tool and its full release in the next edition of the Klinger news.



“It has been an excellent opportunity to interact with end users and contractors,” comments Oliver Bache.

