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# KLINGER NEWS

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# EDITORIAL

Welcome to this new edition of the KLINGER NEWS!
We dedicated this edition to the topic excellence. We present the various dimensions of excellence which we have found in our KLINGER world. Let us start with where it all comes from. As KLINGER Group we have formulated our mission around five values:

1) Invest in people and have them learn from the best.
2) Serve our customers with expertise, integrity and passion.
3) Foster innovation exceeding current industry standards.
4) Extend technology leadership to process and service excellence.
5) Develop industry and region specific solutions, optimizing product lifecycle costs.

Our mission guides all our activities and is the foundation of our business. We are committed to anticipating, understanding and meeting our customers' needs and expectations. Expanding a business over generations requires a passion for excellence. It combines high quality products, experience and passion. We do this with our obsession for high quality products, our technical expertise and our people who do their job with this certain sparkling in their eyes. These three elements – products, know-how and our people – are core elements of our company success and the foundation for exceeding our customers' satisfaction. The willingness to deliver excellence is a commitment and a value. As a group, we strive to have this value as well as an intrinsic part of our KLINGER's corporate culture.
Enjoy the reading and discover how we interpret excellence in the KLINGER Group.

Dr. Christoph Klinger-Lohr
*Business Development Director*

# INDEX

# KLINGER GROUP AWARD

## Who has gone the extra mile.

*Company Level Winner KLINGER Gebetsroither during their celebration*

We acknowledge the crucial role our people play in ensuring our company success. Hard and continuous work of our people is recognized. We reward our employees who go the „extra mile" beyond their normal job duties. As an internal competition the KLINGER Group Award rewards companies as well as employees for delivering top performance for our customers day in, day out.

But how does KLINGER define company success? Of course, high sales are one of the most important key performance indicators. Moreover, success within the KLINGER Group also means promoting innovations and maybe even more important: it also signifies focusing on our customers' needs. As we kicked off the KLINGER Group Award 2014 the last month, we would like to present you the winners of the KLINGER Group Awards 2013.

### KLINGER Group Award Winner 2013 – Company level: KLINGER Gebetsroither

### Achievement: Highest sales with new KLINGER products

Recognizing trends is essential to keep the market leader role. Constant search and awareness is necessary to recognize early new trends. But not only spotting trends is needed, you also need to adjust your organisation to take the lead in such trends. KLINGER Gebetsroither, our Austrian Service & Distribution company, experienced such a situation as their market started to saturate. While the largest Austrian cities and towns had been equipped with heating supply networks over the last decades, most recently only little investments were approved to extend networks and build in new components. Partly driven by an increasing alternative energy supply (gas), a trend to more local heat production was identified. However, to participate in that new field, new products and know-how were required. Over the last four years, KLINGER Gebetsroither succeeded in both and has proven that a close look BEYOND the existing market environment can open strategic options, and with them avenues to very lucrative business.

*Marc van der Linden / Business Development Manager / KLINGER Sogefiltres*

*Gary Sheldon / Precision Engineering Manager / KLINGER UK*

**KLINGER Group Award Winner 2013 – Individual Level:**
**Marc van der Linden**
**Achievement:**
**Inter-Company Benefit**

Monsanto is becoming another global customer who is served from multiple KLINGER companies. Even though their Antwerp site was constructed already in 1965, the industrial dynamics of that region maintained it as key chemical complex to supply both internal and external customers such as Solutia, Ferro Corporation and Henkel.

Marc van der Linden is our expert from KLINGER Sogrefiltres in Belgium. Marc had a lead role to repeatedly list KLINGER Sogéfiltres as preferred supplier for valve and steam products. His intense collaboration with KLINGER Schöneberg enabled the KLINGER Group to customize a package including Intec stainless steel ball valves, automated with Air Torque actuators and Westlock switchboxes. The benefit for the customer is obvious: Reduced procurement complexity as all needed products and know-how is available from one single supplier source. This inter-company collaboration represented excellent group collaboration and had to be rewarded.

**KLINGER Group Award Winner 2013 – Individual Level:**
**Gary Sheldon**
**Achievement:**
**Product Innovation**

For some time the UK market, in particularly the profitable off-shore business, has been looking for a company to be more re-active in meeting service demands for specialty ring joints.

When KLINGER Precision was established in April 2012, Gary Sheldon was recruited to head the production side of the business. A time-served press tool maker by trade, Gary has strived to introduce procedures and working practices to ensure all production demands are met or exceeded. Doing so, he did not only contribute to generate significant turnover in 2013 but he also introduced a very valuable addition to the KLINGER product portfolio… in UK and BEYOND.

All the winners did a great job and we want to congratulate them once again.

For the KLINGER Group Award 2014, same procedure as every year:
The winners will be announced in the first half of 2015.

# SHAPING THE FUTURE

## KLINGER Gebetsroither provides full range of valves for Arsenal district heating plant.

**„Wien Energie“ is Austria‘s largest utility. It supplies around 2 million people as well as more than 230,000 industrial, agricultural and commercial facilities in Vienna and its periphery with electricity, natural gas and district heating. KLINGER Gebetsroither is providing excellence for the energy company‘s latest addition to the Viennese district heating network: The Arsenal district heating plant.**

*A KLINGER Gebetsroither expert on the premises of „Wien Energie“*

With its distinctive design, characterized by a single row of windows cut into the slanting facade, the new Arsenal facility is guaranteed to turn a few heads, and not only among those generally interested in architecture. Passers-by might even be tempted to mistake it for a futuristic office building – it is, however, the latest district heating plant of the Viennese energy utility „Wien Energie“.

Fast rewind to the year 2012. The old district heating plant, operated by „Wien Energie“ since 1970 and repeatedly enlarged, is nearing the end of its economic lifetime and must be shut down as it will not be approved for further utilization. A plan to erect a new plant, situated on the premises of „Wien Energie“ next to the historic Viennese landmark, the „Arsenal“, is set in motion. The Zauner Group and Habau are brought on board as general contractors and construction begins in December 2012.

### Challenging construction

As is to be expected, erecting a district heating plant almost right in the middle of Vienna comes with its own set of unique challenges. An entry in the „Wien Energie“-blog, dating back to February 2014, serves to illustrate this fact: „The chimneys arrived from Denmark and have been lifted into position. They consist of three segments, the largest of which is approx. 32 meters long and weighs more than 23 tons. Delivery therefore had to take place in the night and, as a consequence, the ramp to the A23 (Gürtel ramp towards the roundabout) was blocked for four hours.“ But what about the interior of the plant?

### At the heart of the matter

Generally speaking, the new facility consists of a boiler hall with two hot water boilers, a pumping station, engineering rooms, a gas control station and the system control centers. The pumping station, featuring seven circulation pumps and corresponding valve stations, is literally and functionally the „heart“ of the facility. From here, water is distributed throughout Vienna and heated via the hot water boilers.

As city-based power plants are typically characterized by tight spaces, the valves had to meet very specific requirements. Looking for solutions, Wien Energie promptly contacted KLINGER Gebetsroither. Renowned for its excellence in the provision of valves for all kinds of purposes and environments, the company was tasked with providing a solution that would fit all the challenging requirements.

### The solution

KLINGER Gebetsroither opted for combined butterfly/non-return valves, which are primarily used as non-return valves for pump protection, but can also be used as shut-off valves. This means that the number of planned valves can be reduced from two to one, which is crucial for installation in tight spaces. KLINGER Gebetsroither was subsequently awarded a contract to supply the full range of valves, including ball valves and the aforementioned butterfly/non-return valves. The order amounted to a total of 1.9 million euros.

### Energy from within and without

The plant, which runs on natural gas or heavy fuel oil as a substitute fuel in the event of gas shortages, was connected to the district heating grid in July 2014. Trial operation is scheduled to begin in December of this year. A fully operational status will presumably be achieved by mid-2015. The plant will mainly be used to cover peaks in demand and will serve as backup in the event of a supply breakdown. It is designed to generate 340 MW of heat, which roughly corresponds to providing 70,000 Viennese households with district heating.

Last but not least, it should be mentioned that the slanting facade of the building also serves a greater purpose than simply pro-

viding the plant with its distinctive „look“: Covered with solar panels, the district heating plant will also be able to provide up to 190 megawatt hours of eco-electricity. With its bold design and combination of different forms of energy generation, „Wien Energie“ shows that the motto „form follows function“ is still a future-proof(ed) concept in modern architecture. Fitting excellently wherever and however they are needed, the same can obviously be said for valves provided by KLINGER Gebetsroither.

## About „Wien Energie“:

Providing electricity, natural gas and district heating for two million people as well as more than 230,000 commercial, industrial and agricultural facilities in and around Vienna, „Wien Energie“ is Austria‘s largest energy utility. With revenues amounting to 1,944 million euros in 2013, and employing a staff of more than 2,700, it is among Austria‘s top 30 companies in terms of sales.

## KLINGER Gebetsroither

With its headquarters in Wels, Upper Austria, KLINGER Gebetsroither is a leading full-service supplier of fittings, technical products and gaskets for the Austrian market. As a member of the KLINGER family, the company can look back on almost 40 years of excellence in providing solutions for the industry. Always in motion, KLINGER Gebetsroither constantly improves designs with its own R&D division and facilitates safety and efficiency at the workplace by offering a wide range of trainings for mounting technicians.

## District Heating Project Delivered by KLINGER Gebetsroither

**Customer:** Wien Energie
**Project duration:** End of 2012 to mid-2015
**Order value:** approx. 1.9 million euros
**Scope of Supply:** Provision of the entire valve package for the plant, consisting of:

- KLINGER Ballostar KHi / KHSVi VII PN 40 DN 150-800
- Zwick butterfly valves, Tri-Con series PN 25 & 40 DN 400-800
- Zwick combined butterfly/non-return valves, Tri-Check series PN 25 & PN 40 DN 250-600
- Various KHA and KVN PN 40 DN 15-125
- Schiebel & Schiebel Smartcon drives


*Products, know-how and solutions from project start to after sales support*

# GOING GREEN

## Lanxess erects world's largest synthetic rubber polymer plant in Singapore.

*Night view of the impressive mega-plant, named "Dragon"*

**What do golf balls, running shoes, conveyor belts and green tires have in common? The answer to this question is „neodymium polybutadiene rubber", abbreviated Nd-PBR, which sounds like just about any other boring synthetic rubber polymer. But don't write it off quite yet – it is true, its strength is definitely not in its name. It can be found, however, in the properties it conveys to other products. And these are more than enough to put up with its rather unglamorous name. But first things first.**

Studies have shown that 20 to 30 percent of a vehicle's fuel consumption and 24 percent of the CO2 emissions relate to its tires. Green tires are able to reduce fuel consumption by around 5 to 7 percent and amortize themselves in an even shorter period of time. This is where Nd-PBR comes into play: Used in the tread and sidewalls of green tires, it reduces rolling resistance and improves a tire's fuel efficiency. It also helps cut down on tire wear. The corresponding figures clearly show that there is much demand for such a product: Green tires currently boast an annual growth rate of around ten percent, making them the fastest growing segment in the tire industry. In Asia, the demand is even higher – 13 percent.

*Ball valve, trunnion mounted, typ INTEC K214-FS NPS20" class300 with gear operated, ASTM A216 WCB, weight appr. 1.7 tons*

### Taking the lead

The market leader in the production of Nd-PBR is Lanxess, a leading German specialty chemicals company. In 2013, it generated sales amounting to 8.3 billion euros with its 17,400 employees in 31 countries. Lanxess was founded in 2004 after Bayer spun off its chemicals operations and parts of its polymer activities. The company had a successful launch – focusing on its core business of developing, manufacturing and marketing plastics, rubbers and specialty chemicals, it already calls 50 production sites around the world its own. And with the new plant in Singapore, dubbed project „Compass", Lanxess is about to add the world's largest Nd-PBR production plant to its already impressive collection of business locations.

### Breaking ground and records

Construction of the new neodymium polybutadiene rubber production plant, located on Singapore's Jurong Island, began in 2012. The German company has invested around 200 million euros into the facility, which will boast a capacity of 140,000 metric tons, making it the largest of its kind in the world, and targeted at meeting the growing demand for green tires in Asia. The plant is scheduled to commence operation in the first half of 2015.

### Responsible

Amongst other activities, Lanxess is a member of the Dow Jones Sustainability Index (DJSI World and DJSI Europe), FTSE4Good and a signatory of CDP's Climate Disclosure Leadership Index. It is therefore not surprising that around ten percent

*Overview about heavy duty actuators typ BETTIS provided for mounting*

of the money invested at the Jurong Island plant will be used for efficiency and environmentally friendly measures. These include significant reductions to the amount of steam used in the manufacturing process as well as the treatment of chemical compounds from the production process in state of the art off gas units, resulting in no impact on the environment.

### On the ball

KLINGER Schöneberg was awarded the order to supply the plant with ball valves from its INTEC product line. Working closely together with the customer, the product qualification and validation was completed in record time: The necessary tasks, including evaluation, design, drafting, modeling, molding, mechanical machinery as well as delivery, mounting, functional testing and last but not least, inspection, were completed in only 26 weeks. On the one hand excellence is the vision to build a „green" manufacturing plant for green products. On the other hand, it is the ability to harness the knowledge gained in a project to immediately adapt your product range. KLINGER Schöneberg is therefore proud to report that the INTEC portfolio now also includes ball valves up to NPS20" class300. As a result of the excellent cooperation between KLINGER Schöneberg and Lanxess in the course of project „Compass", the company has also been asked to provide its expertise for a project at Changzhou in the Chinese Province of Jiangsu. In essence, the to be erected plant is identical to the plant in Singapore, however, at an almost doubled size. This mega-plant, aptly named „Dragon", follows the world-scale EPDM Lanxess concept. To date, the corresponding investment of 235 million euros has been the single largest investment in China ever undertaken by Lanxess. The new mega-plant with a capacity of 160,000 tons per year is scheduled for completion by the end of 2014. Following intense technical and commercial contract negotiations, the order, amounting to more than 6.2 million euros was awarded to KLINGER Schöneberg . Thanks to the orders regarding project „Compass" in April 2013 and the orders for project „Dragon" in July of the same year, KLINGER Schöneberg can now rightfully call itself the largest valve supplier for Lanxess around the globe.

## KLINGER Schöneberg Project Data „Compass", Singapore:

| | |
|---|---|
| **Product range:** | Ball valves INTEC K210, K214, K221, K211 |
| **Sizes:** | NPS 1/2" up to NPS 20" |
| **Pressure class:** | Class 150 up to Class 300 |
| **Temperature range:** | -29°C up to +250°C |
| **Connection:** | Flanges acc. to ANSI B 16.5 RF |
| **Material range:** | ASTM A216 WCB, ASTM A351 CF8M |
| **Sealing system:** | Soft, PEEK and metal-seated |
| **Operation:** | Hand lever, ON/ OFF |
| **Realization:** | 2013 – 2014 |
| **Quantities:** | 1,035 pcs. |
| **Order value:** | More than 3.6 million euros |

## KLINGER Schöneberg Project Data „Dragon", China:

| | |
|---|---|
| **Product range:** | Ball valves INTEC K200, K220, K210, K214, K221, K211, K410, K811 and others |
| **Sizes:** | NPS 1/2" up to NPS 20" |
| **Pressure class:** | Class 150 up to Class 600 |
| **Temperature range:** | -29°C up to +250°C |
| **Connection:** | Flanges acc. to ANSI B 16.5 RF |
| **Material range:** | ASTM A216 WCB, ASTM A352 LCB, ASTM A351 CF8M ASTM A351 CF8, ASTM A182 F316 |
| **Sealing system:** | Soft, PEEK and metal-seated |
| **Operation:** | Hand lever, ON/ OFF |
| **Realization:** | 2013 – 2014 |
| **Quantities:** | 2,002 pcs. |
| **Order value:** | More than 6.2 million euros |

# PICKING UP STEAM

## Apollo Vredestein saves energy and increases production.

*Partners for Excellence - Apollo Vredestein worked with KLINGER BV to improve energy consumption*


*Apollo Vredestein – a leading tire manufacturer*

**The manufacturing industry has come a long way since the introduction of the first commercial steam engine in 1712. While we no longer directly rely on steam power for our daily needs, its significant impact can still be seen in our use of language. During office hours, we „steam ahead" in our projects. Tina Turner with her „Steamy Windows". Or think of Peter Gabriel's „Steam". But how important is the efficient use of steam as part of the manufacturing process? If you happen to ask the tire producer Apollo Vredestein, the figures detailed in their answer will most certainly impress you. This is their story.**

„Today's industry is all about efficiency and conservation in terms of energy, material consumption and emissions," confirms utility engineer Gert Jan ten Dam, in charge of steam generation at the Enschede plant of tire manufacturer Apollo Vredestein. „Companies wishing to be top of their class, however, should also take a closer look at areas which might not offer significant savings at first glance," he adds. The corresponding manufacturing process utilizes steam to press the annual output of six million tires into the proper shape.

### Pipe dream

Apollo Vredestein's personal efficiency story began with an assessment of the current situation. „Once steam has discharged its energy, it is basically returned to the boiler house in the form of condensate," states Jan ten Dam. An analysis of returned condensates revealed a staggering figure: Condensate loss in the system amounted to 35%, meaning a significant waste of energy. The first step to prevent that loss involved convincing colleagues and the management that this would actually pay off."

### Educate – Evaluate – Execute

Gert Jan ten Dam kicked off his project, which would lead to annual savings in the six-digit range, by making his colleagues more energy-aware: Tire Curing Maintenance Coordinator Peter Oordt and his team of engineers attended a course on condensate management. "Completing the course, we knew that good steam traps would be crucial for our endeavor." As an initial trial, all existing steam traps were replaced on one of the company's agricultural production lines. The results were more than promising and Jan ten Dam given the green light to take things to a larger scale.

### Partners for Excellence

KLINGER has long been a supplier of condensate systems and is renowned for its pioneering role in energy efficiency and subsequent cost reduction. In order to provide excellence in service, Marc Westerhuis, Sales Engineer at KLINGER BV Rotterdam, called upon the Armstrong Company to provide a detailed analysis of the existing infrastructure. „Armstrong began in 2010 by mapping the factory's pipework and its 800 steam traps. 56 of the steam traps were blowing, meaning that steam – and therefore energy – was leaking out," recounts Westerhuis. Quantified, this amounted to a sum of 400,000 euros literally going up in smoke year after year. Needless to say, the 56 traps were replaced and a new measurement scheduled for the next year. There was actually

no difference to the previous assessment. „And then a colleague pointed out that we had, in the meantime, set up a new production line," grins Oordt, „the six new machines were having no impact on the total energy consumption whatsoever. We were jumping for joy."

### Four years on

Working together with its partners KLINGER and Armstrong, Apollo Vredestein has since then implemented numerous changes. An online monitoring system dubbed „Steamstar" monitors the condition of the pipework and the steam traps. The condensate loss is now down from 35% to twenty percent. Furthermore, the annual loss has been decreased from 400,000 to 50,000 euros, while at the same time saving 15,000 tons of steam. CO2 emissions have been reduced by 2,200 tons per year and energy savings amount to 12,500,000 kWh over the same time period. „These figures are especially impressive, as we have in the meantime increased our tire production from originally five million to presently 6 million units per year," observes a visibly proud Gert Jan ten Dam.

### Waste not, want not

Apollo Vredestein has also signed a long-term energy efficiency agreement (LTA3) with the government of the Netherlands. It contains a package of energy saving measures, stipulating that 2% energy must be saved annually and CO2 emissions correspondingly reduced. The company is also making the use of compressed air and electricity consumption more efficient. Peter Oordt explains the underlying motivation, „Our mission is no longer simply to save costly energy, but instead not to waste it in the first place. We now use an energy-saving mixer to mix our ingredients into a molten rubber compound. Air pressure leakage is yet another issue we are currently addressing."

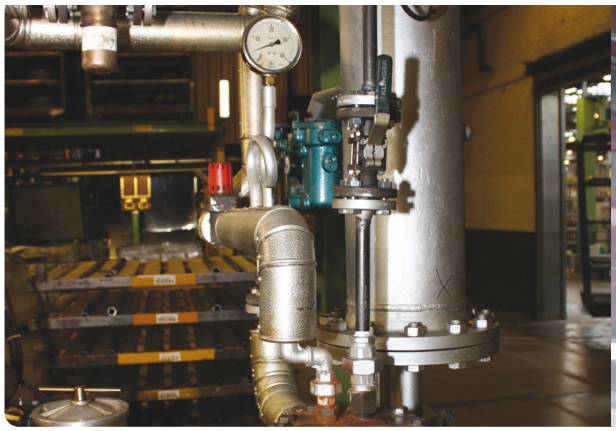
In Enschede, constantly improving the plant and its output seems to have become a kind of unofficial motto. „If required, we could further expand production to 7.4 million tires per year," muses Oordt, „and if we do, then we are confident that such an expansion here in the Netherlands would not violate our energy agreements with the government."

## Apollo Vredestein

Apollo Vredestein BV is a Dutch manufacturer of tyres for cars, farm vehicles and bicycles. The factory produces 6 million tyres a year, the majority of which are produced for the replacement market. Only a small portion is directly delivered to car makers. Apollo Vredestein has been part of the Indian Apollo Tyres Group since 2009. The company provides work for approximately 1700 employees.

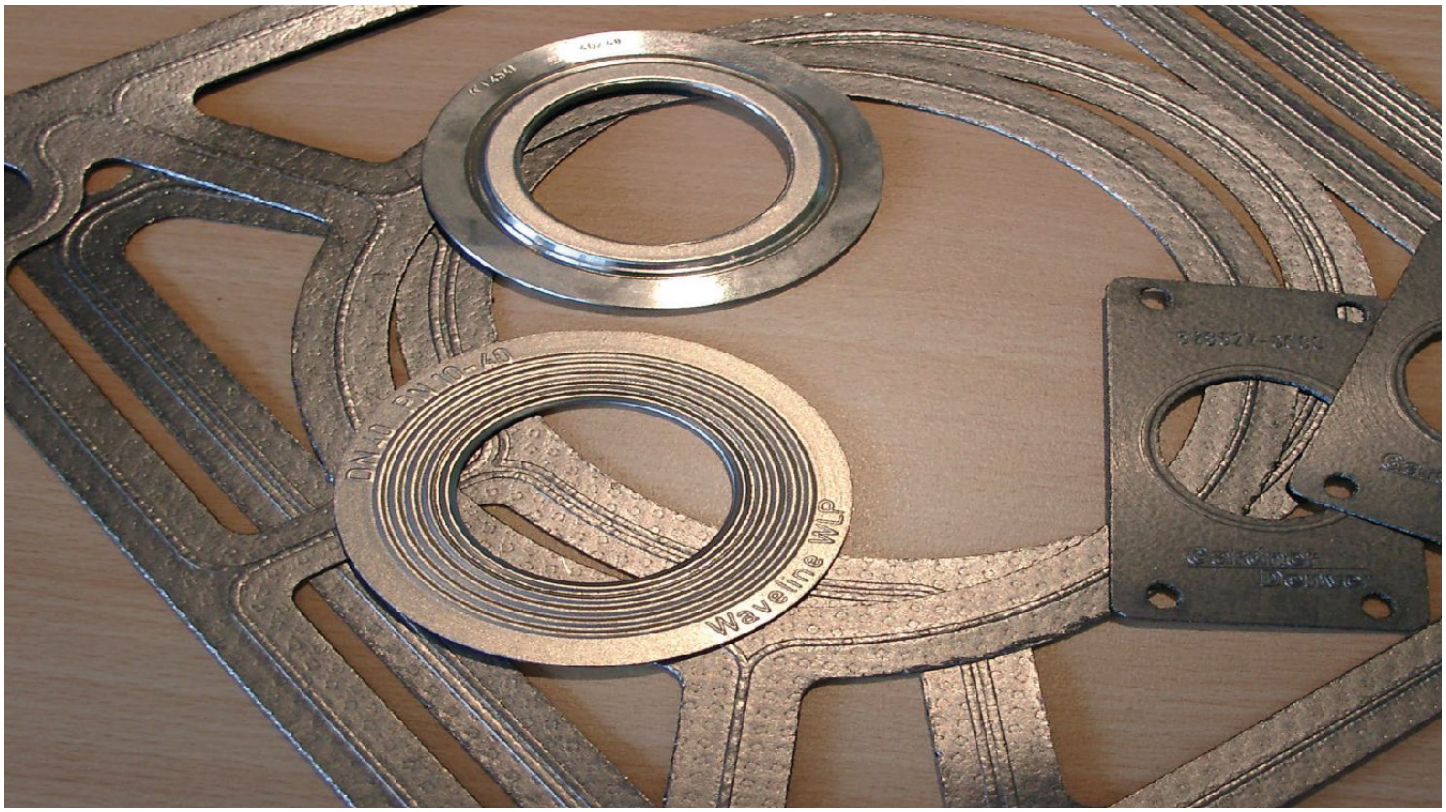
## KLINGER The Netherlands

KLINGER is an international manufacturer of seals and supplier of technical components for the heavy industry.
We provide innovative products and high quality services that meet the stringent requirements on durability and reliability. Founded in 1886, the family business can look back on more than 125 years of extensive experience and knowledge in providing products, service, advice and training in order to create a safe and effective process industry.
We are aware that sustainability is an important criteria for the future and therefore prefer quality and long-term solutions. That's why our motto sounds: 'Quality pays off…'. KLINGER The Netherlands is part of the KLINGER Group.



# COMBINING THE BEST-SUITED MATERIALS

## A.W. Schultze provides two-component and Waveline gaskets.

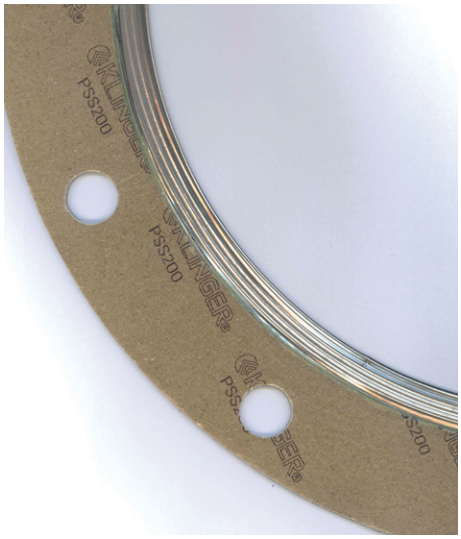



*Waveline*

**Processes and designs are constantly being optimized to meet environmental and economic requirements. The demand for new and improved designs also creates new challenges for sealing technology. With composite gaskets, these increased demands can be readily met.**

High-efficiency designs often rely on lightweight construction methods, which mean flanges are usually thinner and less rigid. For example, flared tubes are connected with loose flanges. Static seals (especially those on a fiber or graphite base) require a sufficiently high tension through the flange. Only by thus generating surface pressure is a tight connection created. However, thin flanges cannot be tightened as firmly, which results in a low surface pressure and consequently insufficient sealing effect. At the same time, extreme conditions (high temperatures, aggressive media, etc.) require sealing materials that may have conflicting properties.

Seals with a conventional design do not adequately meet these requirements – and a new approach is called for.




### Composite gaskets: Assigning function based on material

A.W. Schultze provides two- and three-component gasket products that meet these high mechanical and chemical requirements. The company's approach is based on assigning functions according to the different materials used, for example:

- An internal rubber ring provides the seal, while a solid outer support ring absorbs the mechanical stress from tightening.
- A PTFE ring seals the connection, while an external mica ring provides fire resistance.
- An internal rubber lip forms the seal, while an outer ring made of KLINGERSIL® C-4409 provides additional support.

Two-component gaskets have been used for several years in shipbuilding, where they have to withstand the aggressive medium of sea water and the high temperatures from the exhaust gas in the exhaust

area. Increasingly, one also finds two-component gaskets in piping and mechanical engineering applications.

### Waveline WLP

While multi-component gaskets are particularly suitable when the operating environment places high demands on the seal, Waveline WLP gaskets provide the greatest benefits in applications with less stress through the flange and thus low surface pressure.

Before installation the Waveline WLP gaskets are pressure injected, whereby the seal cross-section is modified and given a waveform. The injection significantly reduces the diffusion through the gasket, which allows for a lower surface pressure in a sealed connection. At the same time, the surface roughness of the flange is offset by the wave profile.

### Benefits

WLP gaskets provide the lowest leakage rates, despite a low surface pressure at the sealing connections. By combining the best-suited materials, two- and three-component gaskets can meet even the most extreme requirements such as resistance to aggressive media and high temperature or fire resistance.

Both models are ideal for use in lightweight constructions and allow safe sealing connections, even with weight-optimized designs.

In addition, two-component and Waveline gaskets can be combined, allowing clients to benefit from the features of both designs. With its gaskets, A.W. Schultze provides excellent solutions for challenging applications and thus enables safe, efficient and economical operation of equipment in a wide range of technical fields.

## Waveline WLP

| | |
|---|---|
| **Sample Applications:** | Two-component gasket, Milam / Graphite custom model |
| **Inner:** | Graphite custom model, 3.0 mm IB+AB with Waveline WLP |
| **Outer:** | KLINGER Milam 2.0 mm |
| **Benefits:** | » Less leakage<br>» Cost reduction<br>» Increased buckling stability with graphite<br>» Environmentally friendly<br>» Improved scratch resistance |

# CENTERING ON EXCELLENCE

## KLINGER UK adds Center of Excellence to KLINGER service offering.


*KLINGER UK opens a new training center in Bradford*

**With more than 60 manufacturing, distribution and service hubs around the globe, the KLINGER Group ensures that the solution to a challenge is always just a phone call away. True to its core value „Quality.Driven", the company not only provides excellence in its products and services, but also know-how that operators require to ensure the success they deserve. As a consequence, the KLINGER Group focuses on constantly expanding its training opportunities for customers. The latest addition: The KLINGER UK Center of Excellence.**

At KLINGER, training has always played an integral part in guaranteeing that customers are provided with only the best in terms of products, solutions and services. „Working with our customers, we strive for sustainable business relations based on trust, rather than on short-term gains," explains Alan Bates, Managing Director of KLINGER UK, and adds, „The opening of the KLINGER UK, Center of Excellence' allows us to share our knowledge with our customers. That's what partnership is all about."

### Practice makes perfect

Focusing on a hands-on approach, the UK training center provides technicians with practical knowledge on bolted flange joint assembly. For this purpose, the facility makes use of a range of flanges and test kits – including the so-called flange assembly demonstration unit – to highlight and subsequently ensure an understanding of how the different assembly techniques and gasket selection affect joint assembly. As a state of the art training facility, the ‚Centre of Excellence' also makes use of e-Learning to provide in-depth knowledge on the subject matter: Data on bolt preload stress, gasket compression and torque-preload relationships, for example, is displayed on computer monitors in real-time and in an easily understandable format.

### Training with the best

With its training facilities, such as for example the „Saidi University" in Spain, the KLINGER Gebetsroither training center for sealing technology in Austria or the courses offered by Kempchen Dichtungstechnik in Germany as well as the recently opened ‚Centre of Excellence' in the UK, the KLINGER Group has worked to ensure that companies can expect excellence from the mounting technicians they employ. The coming into force of the DIN EN 1591-4, which certifies that individuals have the ability to install seals in flanges used in pressurized systems, and therefore hazardous environments, underlines the pioneering role of KLINGER in this field. As an authorized training institution, KLINGER offers a corresponding set of modular trainings, consisting of both theory and practice, to ensure on-site excellence.

### Dos and don'ts

During the course of the trainings, participants are given ample opportunity to acquire knowledge regarding various seal-related topics. These include, amongst others,

storage, transport and handling of various seals, aspects to be considered during the actual installation, occupational safety requirements, correct utilization of tools and tightening procedures for the job at hand, interlocking elements as well as dismounting seals.

## Tricks of the trade

Participants also have the opportunity to hone their skills in the course of hands-on training sessions. Topics covered include flange forms and defective sealing surfaces, suitable seal types and geometries, an overview of available tightening procedures and their effects on the flange connection, common screws and tools, lubrication and screw state and last but not least, mounting errors and the effects of defective elements on the seal function.

## Take the tour

In the event that traveling to an authorized KLINGER training facility is simply not an option, you need not miss out on the chance to train with the best. Instead, you can simply have your personal hands-on training institution pay you a visit. How? By making use of our „KLINGER ON TOUR" offer – more on this in a separate article in this edition of the KLINGER News.


*Theoretical and hands-on training are offered to participants at this Center of Excellence*

# DELIVERING KNOW-HOW

## KLINGER trains employees at your site with its mobile service unit.


*„KLINGER ON TOUR"-truck brings know-how directly to customer's site*

**Being committed to excellence involves a willingness to go the extra mile to achieve success. KLINGER has recently provided a very literal interpretation of this fact by launching its innovative „KLINGER ON TOUR" training program.**

In a normal scenario, a customer's technicians attend and complete trainings at various training facilities. This, however, as any human resources manager is quick to point out, costs both time and resources. KLINGER has instead come up with a different approach, guaranteed to find the approval of every personnel department: Simply have the entire training facility pay you a visit at your own business location.

### Wherever you are

„We already offer customers a wide range of training opportunities at our facilities around the globe. With our „KLINGER ON TOUR"-truck employees can now also train in a state of the art mobile training environment, wherever they are, and whenever required", explains Christoph Klinger-Lohr, Business Development Director of the KLINGER Holding and adds, with „KLINGER ON TOUR", we are ready to provide excellence in trainings across Europe."

### Uniform qualification

The trainings and workshops offered in the course of „KLINGER ON TOUR" are based on the DIN EN 1591-4 standard, which has recently come into force. It governs the qualifications mounting technicians and supervising engineers require for the installation of flange joints in pressurized, critical systems.

„No matter whether you operate a chemical plant, a refinery or a power plant – tight seals are imperative to avoid resource and production losses, environmental hazards, or even harm to personnel", summarizes Klinger-Lohr.

Studies have shown that most cases of failing seals can be traced back to incorrect installation, itself caused by lack of qualification on the side of the employees carrying out the task. So are trainings on the basis of a uniform standard a good thing, you might ask. The answer is definitely yes – not only do they ensure a long-term improvement of safety levels, they also help combat the prevailing lack of specialists in the field.

## Welcome to my cab

The „KLINGER ON TOUR“-truck comes equipped with all the tools of the trade to ensure that participants are optimally prepared for certification according to DIN EN 1591-4: Fully fitted workplaces inside the vehicle allow employees to perfect their knowledge and hone their skills on different flange types and shapes. Furthermore, groups are kept small to guarantee that all participants can benefit from individual and targeted tuition. Last but not least, attendees can also make use of the mobile training center for the final step: Independent assessors are on board to conduct exams for the coveted certification.

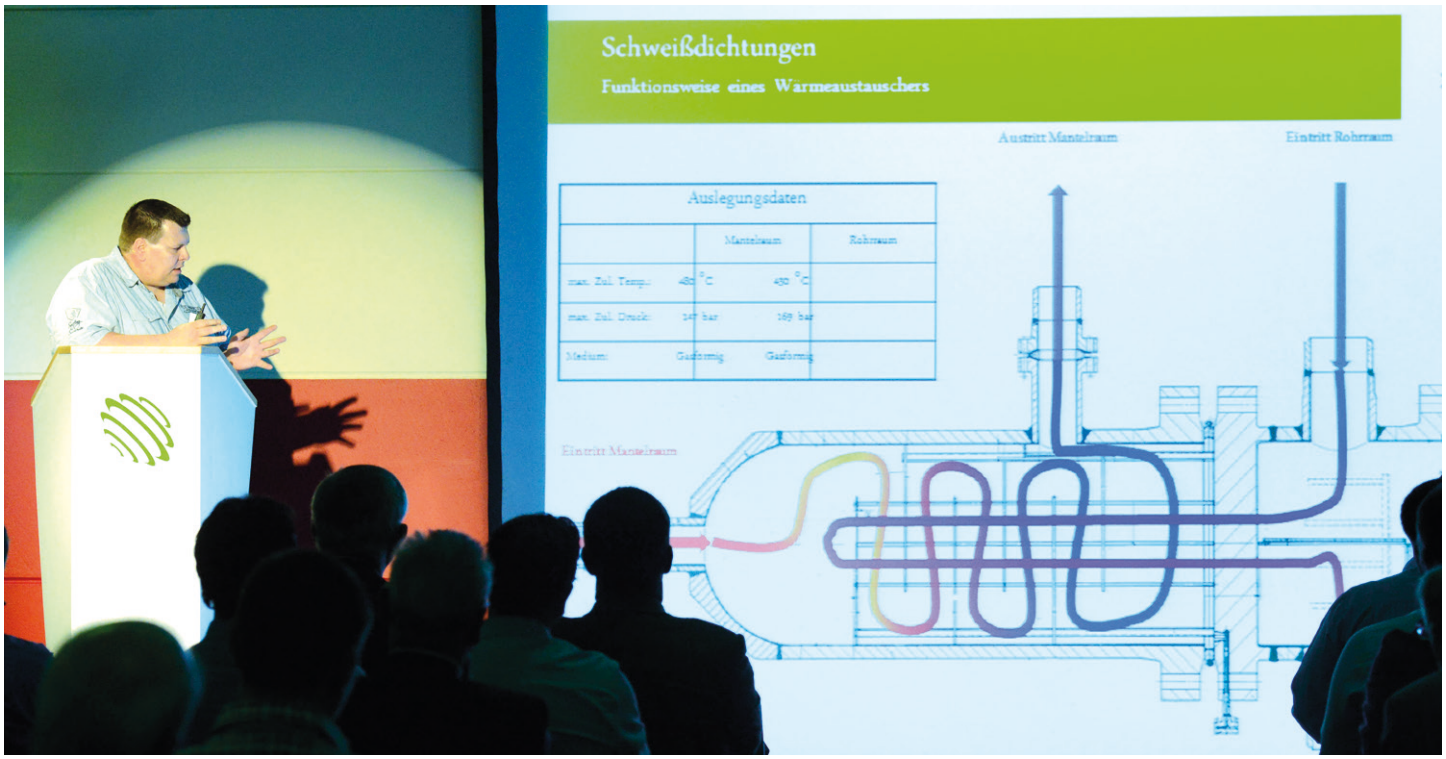
Following its successful completion, mounting technicians will be able to guarantee that joints remain tight across their entire operational lifespan.

For further information, please visit *http://ontour.klinger-international.com*


*Professional training and development programs around the subject of sealing and bolting technology*

# MEET. LEARN. EXCHANGE

## An Expert Plattform for Professionals.




*Expert presentations during the „Praxistage“ of Kempchen*

**Kempchen held its popular „Praxiswissen Dichtungstechnik“ (“Sealing Technology A to Z”) program for the third consecutive year in Oberhausen, Germany. This year’s event attracted some 200 participants, who attended presentations by experts and learned about the main aspects of sealing technology. Kempchen also celebrated its 125th anniversary during the event.**

The event is an ideal forum for exchanging ideas with colleagues about sealing technology. Experts from different fields provide insights into important aspects of sealing technology – from proper installation to factors affecting the tightness of connections and special uses.

### Presentations

The presentations were given by experts in the field who work with sealing technology on a daily basis. Experts from the following companies shared their specialized knowledge in presentations:

» BP Gelsenkirchen
» CeH4 technologies
» Shell Oil Germany
» Synthomer
» TÜV SÜD Chemie Service
» Evonik

### Factory tour

In addition to the presentations, the attendees also had the opportunity to the Kempchen site: the production, the chemical and physical laboratory, and the testing and inspection department. As the tour was divided into small groups, the participants also had the opportunity to discuss and exchange with other professionals.

## KLINGER ON TOUR: Onsite training

Another highlight was the presentation of the „KLINGER ON TOUR"-truck. The truck is a mobile service unit that KLINGER uses to offer its customers the opportunity to train on site.

Customers were able to experience this specially designed semi-trailer. Kempchen specialists demonstrated the impact of errors during installation, the interaction between frictional forces and surface pressure, etc. inside the truck. Visitors were further able to practice in the truck and install gaskets under the guidance of a sealing expert.

## 125 years of sealing technology at Kempchen

The event was also a great occasion to celebrate the 125th anniversary of the company's founding. Since its birth in 1889, Kempchen has gained an excellent reputation in the field of sealing technology. The brand Kempchen has become the first choice for the chemical and petrochemical sector, as well as for areas such as power plant engineering and plant construction. The success of this KLINGER company is based on its commitment to research and development, its outstanding expertise and its close contact with customers.

## Positive feedback from participants

The audience feedback was also very positive. Participants appreciated the practical nature of the presentations and the opportunity to ask professionals with hands-on experience and receive answers from experts on the spot.

## Save the date: May 6-7, 2015

Save the date for the next event next year: The 4th annual „Praxiswissen Dichtungstechnik," will be held from May 6-7, 2015 at Kempchen in Oberhausen.


*Customers had their personal hands-on training inside the „KLINGER ON TOUR"-truck*

# DEMANDING FOOD & BEVERAGE SOLUTION

## KLINGER ELDI supplies INGREDION'S BARADERO PLANT.

**ELDI awarded contract by Ingredion Argentina for the engineering and supply of 124 PFA lined automated on-off and manual valves for the expansion of the Baradero plant, located in Buenos Aires, Argentina.**

The Food industry is a vital part of our modern civilization – there is nothing more important than food and water. Food has to meet high quality standards. Food and beverage manufacturers as well as their suppliers face increasingly stringent regulatory requirements all along the supply chain. Even all parts of handling and processing equipment have to be designed and built to conform to those demanding requirements.

The KLINGER Group has been supplying the Food industry with specifically designed solutions for years. We produce and continually develop specialized materials and products that are required for this specific industry. This is particularly evident in relation to the standards introduced by national and industry bodies.

Since 2000, ELDI's sales team has been working closely with Ingredion's project engineers on continuous improvement in quality and efficiency of their existing processes and ongoing projects. The project involves the expansion of the Fructose Plant and the automation of the Ion exchange columns. 78 on-off automated valves and 46 manual valves will be installed.

### High resistance to corrosion required

Both fructose and dextrose with operating pressure of 6 barg at 80 °C, usually require the use of lined valves due to the presence of corrosive acid solutions of dextrose and starch syrup. The use of an alloy valve may meet the nominal specifications for handle a corrosive fluid but small changes in processing conditions can significantly affect the valve material and the valve can fail due to corrosion.

### Xomox' PFA lined Tufline® valves meet high demands

Based upon preliminary evaluations, Ingredion's project engineers and ELDI's sales engineers determined and specified 2", 3", 4" and 6" Xomox PFA lined plug and butterfly valves for this application because valves lined with PFA (perfluoroalkoxy® fluorocarbon) are clearly superior to valves lined with PTFE. Dovetail recesses in the valve body lock the lining into the valve body. PTFE lined valves are also more susceptible to corrosion due to the micro fissures that PTFE develops during the blow molding process.

### ELDI: Customer Support from the beginning

Claudio Pacheco, sales manager from ELDI: "We have been in contact with the customer from the beginning of this project. Together with the plant engineers we assessed that Tufline® valves are the best solution for this application. Tufline® offers extended service life, more productive uptime and reduced maintenance for the customer." Partnership with our customers is a key component of a project's success and once again, we proved ourselves as a customer focused company: Serving our customer with the best solution.

*KLINGER Argentina team together with Christoph Klinger-Lohr inspecting the products for Ingredion*

## Ingredion: A global player

Ingredion is a worldwide leading company that specializes in producing ingredients derived from corn wet milling such as starches, syrups, dextroses, maltodextrins, glucose, caramel colors, dextrins, adhesives, functional ingredients and refined oil, among other ingredients found in thousands of products supplying some 60 diverse industries including food, beverage, animal health and nutrition, pharmaceutical, brewing, corrugating, paper products and textiles.

In 1928, the company set up its glucose and starch production plant in Baradero, Buenos Aires province. Nowadays it is the only company in South America having a Monohydrated Dextrose plant.

# THE SOUTHERN MOST GASKET OF THE WORLD

## Klinger gaskets for the Old Patagonian Express.


*KLINGER gasket material used in the Old Patagonian Express*

**Gaskets are not the most important topic for the majority of people. Only engineers and experts know about the important role a gasket material can have in various applications. Most of us will even not know where a gasket material is used and which function it has. Recently, this happened in Argentina as well. The KLINGER Argentina team was contacted by a technical expert with a "special inquiry" related to an old gasket material.**

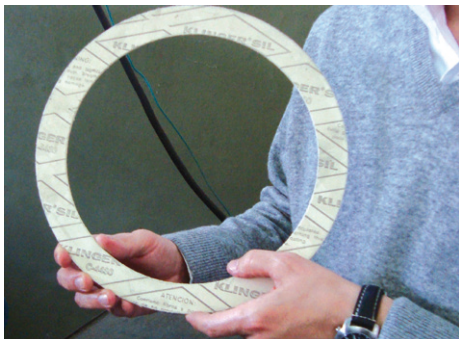
### KLINGER gaskets for the Old Patagonian Express

Train fans around the world flock to this corner of the south, in Esquel in the province of Chubut , to find a gem of Patagonia Argentina: "Viejo Expreso Patagónico" ("Old Patagonian Express"), also known as "La Trochita". Only one of La Trochita's distinctive features is the narrow trail with only 75 cm. The legendary Henschel steam locomotive Class 75 H was made in 1922, and it is still in use. This locomotive is considered a unique piece according to its manufacturers. Due to its historical significance the Government of Argentina declared the Old Patagonian Express as a National Historic Monument in 1999.

### Up to date gasket material for a 90 years old train

Unlike high sophisticated modern trains travelling with La Trochita is very special: The top speed is only thirty five kilometers per hour, and the driver must operate the valve manually in order to let the steam move from the dome to the piston, which powers the locomotive.

*90 years old gasket material KLINGERit replaced by KLINGER C-4430*



Antique technique like this 90 years old train needs special care, and maintenance work has to be done considering the technology and the general condition of the train.
Maintenance personnel in charge of keeping the old Patagonian express in perfect condition, have replaced the old asbestos gasket material KLINGERit by asbestos-free material KLINGER C-4430.

**La Trochita on track with KLINGER**

Designed to meet the demands of modern applications, KLINGER gasket material also fits in special cases like this locomotive, designed many decades ago.

Using this modern KLINGER gasket material maintains safe operation of this famous train, tourist attraction and national historic monument, and enables La Trochita to travel many more kilometers through Patagonia.

## La Trochita
## The old Patagonian Express

La Trochita, (El Viejo Expreso Patagónico), in English known as the Old Patagonian Express, is a 750 mm narrow gauge railway in Patagonia, Argentina using steam locomotives. The nickname La Trochita means literally „little gauge". The Trochita railway is 402 km in length and runs through the foothills of the Andes between Esquel and El Maitén in Chubut Province and Ingeniero Jacobacci in Río Negro Province.
The train is a real museum because its structure, rails, locomotives and cars are a relic. The Old Patagonian Express first arrived to Esquel on May 25, 1945. Locomotives and most cars date from 1922.
In the 1960s and 1970s it was much used for freight, contributing a lot to the development of the area. Today the train is well-known beyond Argentina, and it is still operating. There are even regular tourist services to allow visitors to enjoy the unique ambience of a 90 years old train travelling through the impressive landscape of Patagonia.

## KLINGERSIL® C-4430

A Universal Material with outstanding stress retention and resistance to hot water and steam.
KLINGERSIL® C-4430 is a high pressure gasket for universal applications with outstanding stress retention.

Features:
» Excellent creep resistance
» Good steam resistance
» Suitable for use with water and steam at higher temperatures as well as to oils, gases, salt solutions, fuels, alcohols, moderate organic and inorganic acids, hydrocarbons, lubricants and refrigerants.
» WRc approved for use in hot and cold potable water
» Fire-safe
» 3xA anti-stick finish on both sides

# TOOL TIME

## KLINGER UK releases Gasket Insertion Tool and the Sentry Gasket.

**„Where there are things to be done, the end is not to survey and recognize the various things, but rather to do them; with regard to excellence, then, it is not enough to know, but we must try to have and use it, or try any other way there may be of becoming good."**

This quotation from Aristotle's „Nicomachean Ethics" gives us insights into his views on the topic of excellence. Almost 2,400 years later, his words still ring true.
What the great Greek philosopher and scientist describes, is striving for excellence through the process of innovation, accompanied by a pioneering spirit – traits which have been the hallmark of KLINGER for more than 125 years and which have now again been underlined by KLINGER UK with the release of both the „KLINGER Sentry Gasket" and the „KLINGER Gasket Insertion Tool".

*Pictured (left to right): Alan Bates (Managing Director), Danyel Hamilton-Dewhurst (Graduate Technical Engineer), Ben Evans (International Manager).*

### The KLINGER Gasket Insertion Tool – a subsea challenge

Inserting ring type joints between flanges in an underwater environment is a daunting task for both the personnel and materials involved. In addition to having to cope with external factors such as temperature, pressure and visibility, subsea operations come with their own set of risks: On the one side, there is the threat of injury to a diver's hands during installation. On the other side, damage to the product itself, i.e. „bruising" or „pinching" of the gasket as a result of fitting movement, represents another often lamented, decidedly undesirable effect. Additional factors, such as correct sitting of the gasket in the groove and correct flange alignment also need to be taken into consideration.

### Simply excellent

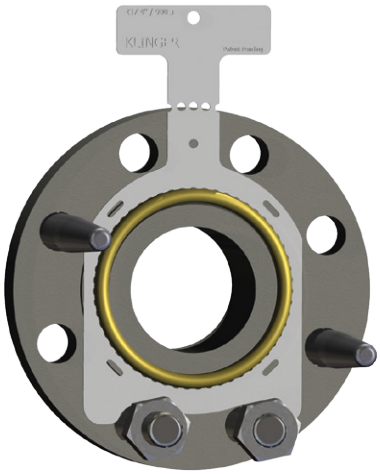
Graduate Technical Engineer Danyel Hamilton-Dewhurst and KLINGER Technical Manager Mark Williams are no strangers to the problems listed above. Dedicated to making gasket insertion easier to execute, the invention duo has come up with a tool which promises to facilitate undersea gasket insertion – due to its simplicity and therefore ease of use. Dubbed the „KLINGER Gasket Insertion Tool" or „KGIT", it allows for a safer, easier and faster fitting process with minimal need for revisiting.

### User-friendly high-tech

Generally speaking, the KGIT consists of the gasket surrounded by a type-specific engineered profile, which can, depending on the model, also feature a lifting jack connection or additional bolt holes. Furthermore, all models feature a tag on the handle, which can easily be broken off. It can then be retained for records. The KGIT is manufactured from Aluminum, using the latest water-jet cutting technologies for superior precision. The gaskets are held in place either by means of a serrated or a rubber bore design. The KGIT is available in sizes 2" to 48" class 900 and above.

### One for each occasion

The KGIT Type R is designed for aid in the installation of R ring joint gaskets. The engineered profile locates on the lower bolts of the flange, thus aligning the gasket correctly and preventing obstruction of the remaining bolt holes.
The KGIT Type BX supports the installation of BX type ring joint gaskets between two API 6A flanges. The additional bolt holes of the gasket insertion tool ensure that the gasket is correctly aligned in the groove. In order to separate the KGIT from the ring



*KGIT Type R Aligned on lower bolts*

*Watch a video of the KGIT*

*Scan the QR Code or go to*
*www.youtube.com/user/klingerLtd*

gasket and remove it from the flange, the diver simply has to squeeze its handle lever.

### Guardian Angel

A leaking pipeline is an oil and gas operator's worst nightmare. In addition to having an immediate, detrimental impact on both man and the environment, threat scenarios include, amongst others, loss of life or injury, fire and explosion hazards as well as contamination of soil and/or groundwater. Corresponding clean-up operations, depending on the severity of the incident, can take between days and years. In order to keep accidents at an absolute minimum and to avoid leakages, metallic gaskets, specifically designed for high-pressure and typically hazardous environments, are utilized. In the past, traditional leak testing came attached with heavy production downtime and subsequent loss of earnings. Thanks to another innovation from KLINGER UK, this changes today.

### The KLINGER Sentry Gasket a game changer

The „KLINGER Sentry Gasket" allows for reverse integrity gasket leakage testing, meaning individual gasketed connections can be examined as to whether tightness has been achieved prior to introducing internal pressure. Furthermore, the joint can be monitored throughout its entire lifespan – should a leak occur, then it can be tested for and adjusted in only one visit to the flange.

### Numerous advantages

The strength of the KLINGER Sentry Gasket lies in its versatility. Not only does it allow for leak testing on individual flanged joints without need of pressurization of the full system, it can also be used to carry out leak tests on both the primary and secondary sides of the seal. Furthermore, thanks to its design specifics, it significantly speeds up leakage testing while simultaneously requiring less volume of testing media, and, as a whole, reduces the overall plant downtime. Last but not least, individual joint integrity can be directly validated upon installation, therefore minimizing the need for revisiting. The KLINGER Sentry Gasket is available for use in both ring joint and raised face flanges.

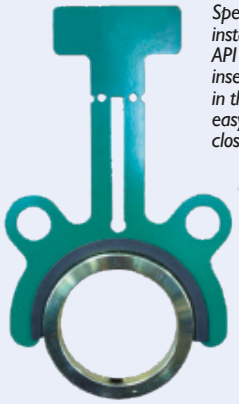
## » Styles

*Serrated Bore*
*Original design KGIT uses serrations to securely hold the gasket.*

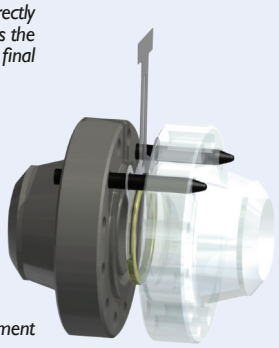
*Rubber Bore*
*This design utilises rubber extrusion to create a more positive hold on the gasket.*

*Lifting Jack Connection*
*Ideal for larger and heavier gaskets the addition of pad-eye connectors allows for attachment to a lifting jack.*

## » Type BX

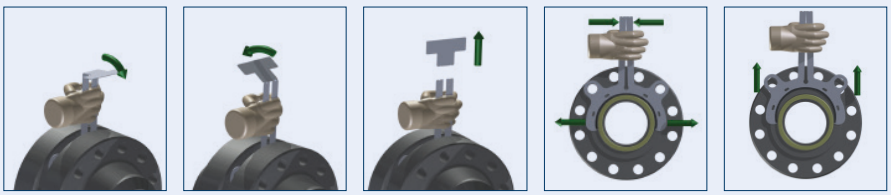


*Specially designed Gasket Insertion Tool (KGIT) for the installation of BX type Ring joint gaskets between two API 6A flanges. The addition of bolt holes in the gasket insertion tool ensures that the gasket is aligned correctly in the groove. The engineered release system ensures the easy removal of the KGIT from the assembly before final closure of the flange.*



*Locating bolt holes ensuring correct alignment*

## » Release System



*Tab Top is removed to expose handle levers.*

*Squeeze the levers to separate the insertion tool from the ring gasket enabling the KGIT to be removed from the flange.*

# KAMing OUT

## In the shoes of a KLINGER Key Account Manager.

*Dirk Schmidt / Kempchen Sales Director*

**In corporate mythology, Key Account Managers lead jet-set lives, dress exclusively in designer suits, are masters of the driving range and hammer out contract details long-distance from a deckchair under a tropical sun. Wishing to discuss the key account customers Solvay and Faiveley, we recently sat down with Anders Svärdsén from KLINGER Sweden and Dirk Schmidt from Kempchen in Germany to find out what key accounts are really all about and why knowledge equals excellence.**

**KN: Gentlemen, if you could please tell us a bit about yourselves and your respective roles.**

AS: Sure. My name is Anders Svärdsén and I've been in the sealing business since 1987. I joined the KLINGER family in 1996 and I am the Managing Director of KLINGER Sweden. I love my work and the challenges it offers, so I guess you could call me a bit of a workaholic. I have two kids and go in for different types of sport and (laughs) yes, the list does include golf. I also like to travel.

DS: I'm Dirk Schmidt and I'm the Sales Director of Kempchen in Germany. I've been in the company since 1986, which became a part of KLINGER in 2004. I also have two kids and in my leisure time I train a soccer team in the 18 to 20 years-range.

**KN: What can key account customers expect from KLINGER?**

AS: Our goal is always to simplify a buyer's day to day work and increase his profitability. To do so, we offer our customers a one-face-approach, meaning they have one contact who they can rely on to manage all their requirements. The relationship we have with our key accounts is a partnership based on mutual trust. In a first step, we personally visit his facilities and identify the specific needs and challenges he is faced with – both internally and towards his end customers.

DS: The reason why we carry out such an analysis is to create a personalized warehouse featuring all the goods the key account requires. Not only does this guarantee availability, it also helps the customer reduce complexity, the number of individual suppliers and removes any existing redundancies. We also link our electronic catalogs, meaning every customer article is allocated its KLINGER article counterpart, therefore enabling ERP-to-ERP processes on a purely electronic basis. Needless to say, this saves a lot of time and money.

**KN: Can you give us examples from your daily work?**

AS: Take for example our customer

Faiveley, which provides customized braking systems for railway vehicles. The process includes up to 200 different part numbers, and covers both small and large items. By signing a support frame agreement with us in 2014, they now get all the required articles from one source, which leads to drastically reduced logistics costs. And the pallets they receive are always in peak shape. The company also profits from our extremely fast response times, what I generally describe as our „quotation factory".

DS: The customer I'd like to introduce to you is Solvay, a Belgium company in the chemicals industry, about approx. 30.000 employees in more than 50 countries and active in, amongst others, the synthetics, automotive and the pharmaceutical industries. The reason why Solvay chose to work with us on a key account basis is our deep understanding of their processes – we have been learning from and with them since the end of the 1990s and they have continuously made use of our global presence and distribution network to support them in country after country in which they are active. At present, we expanding the Solvay global contract into Eastern Europe and the USA. With our own presence in these countries, we will again be able to help them by providing local deliveries. Furthermore, our knowledge of the respective markets and local specifics – think for example of the US and its complex set of regulations, is also an asset they can rely on.

**KN: What do you believe are the main reasons companies like Solvay and Faiveley opt to work with KLINGER?**

AS: I think it has a lot to do with the total service concept – customer, technical, key account and finance support – that we offer. Provocatively speaking, you might say that KLINGER, with its global presence, is big enough to serve, yet small enough to care.

DS: Care is a keyword I'd also use: The one face to the customer approach is a very important factor. Working closely together, you know your counterpart and what you can expect – and demand – from him or her. This facilitates trust and forms the basis for a mutually beneficial partnership. And in the event of a challenging situation, KLINGER can always fall back on its subsidiaries to provide the required products or solutions on time. However, if one production facility of KLINGER is unable to deliver, in case of a major failure, the group is able to compensate it to other own production sites.

*Anders Svärdsén / Managing Director KLINGER Sweden*

**KN: By way of closing, which kind of companies should consider a key account partnership with KLINGER?**

AS: I'd call them ‚demanding' companies. With that I don't mean companies with pricing at the top of the list and no interest in how their goods are even packed. Instead, companies who demand that a whole set of parameters and criteria be met – delivery times, the total ownership cost, quality of the goods and packaging etc. Let's face it, we might not be the largest company, but we can definitely be the best for our customers.

DS: I'd say companies in industries with critical applications, such as for example, but not limited to, the chemicals and petrochemical industry. A global presence is also a factor, one we have proven time and again that we are capable of fulfilling. Furthermore, companies who have high expectations towards leakage prevention and believe, as we do, that the key to excellence in business is knowing your customer and what you can do for him.

**KN: Thank you for your time.**

# KLINGER UK

## Wins International Trade Award.


*KLINGER UK awarded UK wide prize for its manufacturing and distribution excellence*

**KLINGER UK is pleased to be recognised as one of the most innovative and successful Yorkshire companies through winning the Energy Industry category at this year's Insider Yorkshire International Trade Awards.**

The prestigious event held at the Royal Armouries in Leeds, played host to the region's strongest export-driven companies across a diverse range of business categories. The International Trade Awards are the only UK wide business awards dedicated to recognise the excellence of the UK's leading exporters and importers.

### Energy Industry Award Winner: KLINGER UK

The figures spoke for themselves, said the judges. Employing a clear strategy which had been executed to perfection, KLINGER UK is leading the way in exports of specialist products to the energy sector. A deciding factor for judges was how KLINGER UK embraces local business practices and knowledge to build in continued success. The judges commentated: "KLINGER UK demonstrated perfectly how best to use international growth to support domestic growth. They really brought the benefits of exports home to the British market". The award underlines KLINGER UK's excellence in manufacturing and distributing of sealing products in the UK and also overseas.

The International Trade Awards have been held for the first time in 2007. For more information please visit http://internationaltradeawards.co.uk/

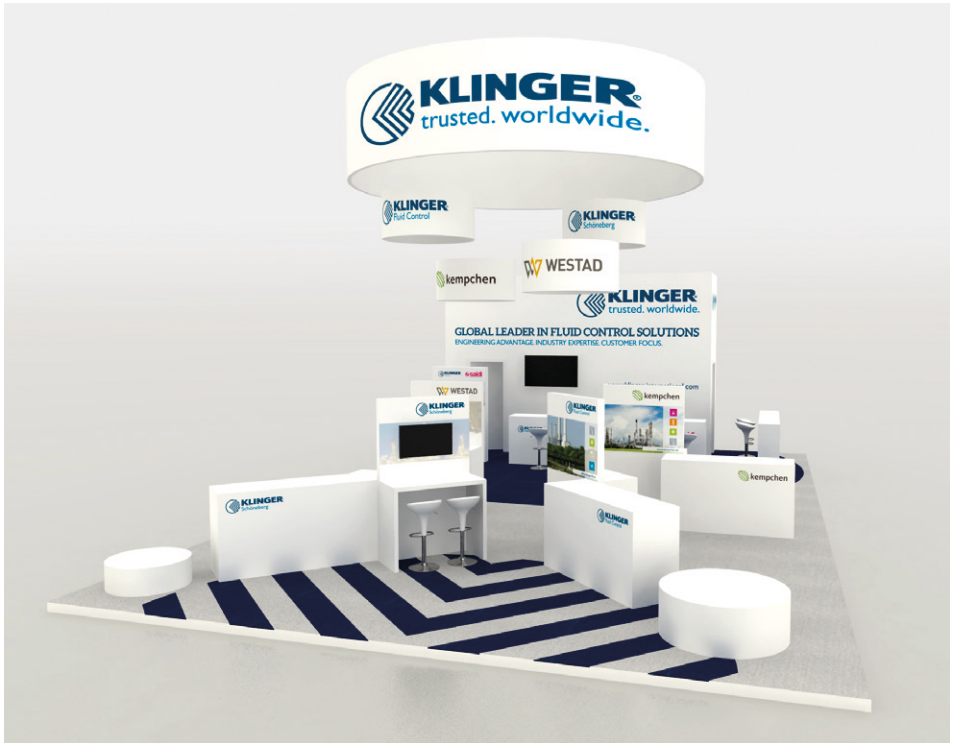
# KLINGER GROUP

## Presented at the Valve World 2014.

**The 9th Valve World Expo and Conference will be held in Düsseldorf, Germany, December 2 to 4 of 2014. It is the largest and the world's leading technology event for the valve & actuator industry. It is the event to update piping and valve professionals from all over the world about the latest development in this area.**

The KLINGER Group will be presented by the following KLINGER Companies:


Focus of the KLINGER Group presentation is the demonstration of our valve products for the chemical, oil & gas, energy, and process industries. Total valve management, one of our proven programs, will be presented by our Service & Distribution companies, Saidi and KLINGER Aseko.




*KLINGER | Hall 3 | Booth D-92*


*Sneak preview of the KLINGER Group Booth at the Valve world*

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