



KLINGER NEWS

Group Magazine



EDITORIAL




Christoph Klinger-Lohr
Member of the Board


Daniel Schibli
CEO


Peter Müller
CFO

Responsibility & engagement are values typically encountered in the "about us" section of a company. KLINGER is no exception in this regard. So are we just another (family-run) enterprise that has jumped up on the "usual corporate repertoire" bandwagon? Hopefully not, and we have dedicated this edition of the KLINGER News to proving that we are in fact, responsible and engaged – towards our customers, our partners and our employees.

In all honesty, our business success HAS to be based on these values because our products and solutions are mission-critical for the smooth and safe operation of plants, and focus on keeping non-hazardous and hazardous media where they belong, thus avoiding downtimes as well as damage or harm to personnel, plant infrastructure, assets and the environment. Next to the high quality of our work, to which we have fully committed ourselves, our responsibility & engagement can be best expressed by our very own "calling card": Our colleagues. Finding an employee, who has worked for a company for more than ten years, is increasingly rare nowadays. Not so at KLINGER: Many of our staff have been with the company for many years and have

considerable knowledge of the company's products and services. Combining all the accumulated experience of our long-serving employees, we have thousands of years of knowledge at our disposal. We make use of this know-how to provide our customers with solutions tailored to their exact needs. This is one of the aspects that has made us "trusted. worldwide."

At the same time, our responsibility & engagement also extends to our suppliers and partners: KLINGER companies continuously undergo recertification to comply with internationally approved quality and environmental protection guidelines in all parts of this world. And leading by example, we expect nothing less from them. At the end of the day, however, prices are a main driver in our globalized world – but always in tandem with delivering value. And this is where our responsibility & engagement comes into play: We take responsibility for how we produce, deliver value and act as a fair and respected business partner. This is what we have committed to and why we believe that we can rightfully call ourselves both responsible and engaged.

We wish you an enjoyable read!

IMPRINT

Publisher:
KLINGER Holding GmbH
Am Kanal 8-10 / A-2352 Gumpoldskirchen
Global Marketing & Communications:
Miroslava Stanic

Chief Editor: Miroslava Stanic
Editors: Florian Gludovac, Bernhard Strasser

Layout:
vorauerfriends communications gmbh
Traunfer-Arkade 1, 4609 Thalheim bei Wels

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CODE OF CONDUCT

Taking a responsible stance



Wherever liquid, gaseous or cryogenic media have to be sealed, KLINGER symbolizes proven expertise for various industry applications. Our product portfolio remains at the forefront of sealing technologies and we are proud to serve a global customer base. KLINGER is a globally active Group with over 40 companies and more than 60 manufacturing, distribution and service hubs worldwide. In this context, ethical business standards and practices are part of our KLINGER company culture.

The KLINGER Code of Conduct is a set of rules that defines how we do business and ensures that our employees conduct themselves responsibly. Each of us has a personal obligation to uphold the standards of our Code and act ethically in our dealings with each other. It is also an essential element to inspire trust and confidence amongst all our business partners, and to ensure the sustainability of our business. We rely on every one of us to make a careful

and considered judgment of what is right and proper in any given situation.

Compliance matters

The Code of Conduct is a set of global standards, which communicates the ethical

and helps to guide our colleagues in the event of moral conflicts regarding what is right or wrong. Consequently, we ask our employees, our managers, our managing directors and our suppliers to adhere to this Code and make it their own.

” At KLINGER, we believe that everyone benefits from practicing and promoting ethical behaviour. Honesty and integrity strengthen the confidence of all our stakeholders.”

Daniel Schibli, CEO

vision of our Group. The local KLINGER companies are furthermore in charge of adapting it to their specific regional needs. So when dealing with KLINGER, you can be assured that we act in compliance with laws, regulations and our own Code of Conduct. This is a clear sign for our partners that we are committed to maintaining the highest standards of personal and professional integrity and our company values. It also serves as a compass for our employees

We operate in a dynamic environment. As a Group, we are just as much subjected to growth and change. The core of what we are, however, is embodied in our values and standards, and remains constant. This will always be the basis for our success. Business with the KLINGER Group has and always will be characterized by high ethical business standards and practices.

INTEGRITY

We value our relationships with clients, customers and partners and are committed to maintaining the highest standards of personal and professional integrity.

PARTNERSHIP

We establish mutually beneficial and healthy relationships with responsible suppliers who meet our standards regarding quality, commercial terms and commitment to safety as well as environmental protection.

FAIRNESS

We must be sensitive to any activities, interests or relationships that might interfere, or even appear to interfere, with our ability to act in the best interest of KLINGER and our clients.

COMMUNICATION

We encourage our employees to be professional and clear in all communications and to carefully consider the best way to do so.

TRANSPARENCY

We are committed to promoting free and competitive markets. Our goal is transparency, candor and honesty in all our dealings.

FAIR DEALING

We only offer or accept gifts and entertainment if they are reasonable, occasional and of modest value and do not have any influence on business decisions.

FAIR COMPETITION

We declare that a restriction on free competition or any violation of competition and anti-trust laws is irreconcilable with our culture and philosophy.

RESPONSIBILITY

We take responsibility and hold each other accountable. We have a shared responsibility not only to act ethically as individuals, but to expect the same from our colleagues.

INTRODUCTION

KLINGER's new Group Management Board



The KLINGER Group Management Board. From left to right: Peter Müller (CFO), Christoph Klinger-Lohr (Member of the Board), Daniel Schibli (CEO).

At KLINGER we understand that providing good service is about more than simply getting the job done. This is why we always strive to enter into long-term partnerships. They enable us to familiarize ourselves with the various industry-specific requirements and to thus make our customers even more successful with tailored solutions. Trust, the basis of such a partnership, however, must always be earned. This is why responsibility & engagement play such an important role within our Group of companies.

Ever since its formation more than 130 years ago and especially in the late 1950s of the past century, KLINGER has been characterized by strategic and sustainable, international growth. Next to top-quality, detailed know-how accumulated over generations by highly motivated KLINGER employees and a clear-cut "customer first" approach that has earned the Group of companies the title "trusted. worldwide.", this success has been made possible by a firm belief in the fact that responsibility & engagement

matter. Today the Group is present in key locations around the globe with more than 60 manufacturing, service and distribution hubs and employs around 2,300 employees. Daniel Schibli, who rejoined KLINGER as the new CEO of the Group Management in April of this year, CFO Peter Müller and Christoph Klinger-Lohr, who will also be teaming up with his colleagues as a Member of the Board in January 2018, see themselves as caretakers of the newly established five operational areas – valves, gaskets, instrumentation, metallic hoses and expansion joints, which include the corresponding Manufacturing as well as the Service & Distribution companies.

Daniel Schibli, CEO

"My new responsibility as CEO also extends to guiding the Service & Distribution and Fluid Control companies. Together with the Managing Directors, I will ensure that our high level of commitment towards customer satisfaction remains our top priority. Trust is about being able to give and take, about inspiring and being inspired. And long-term partnerships with customers, whose trust we have earned, allow us to come up

with innovations derived from their very own industry or company-specific needs. This is also a part of our responsibility: To ensure that our customers can maintain their competitive edge with the aid of our products, services and solutions. At the same time, we have to invest in future-proofing our portfolio, so that we can continue to provide our customers with value. Simultaneously, on the Group management level, we will continue to seek potential acquisitions to further support our growth strategy and to enhance our already considerable product offering. At KLINGER, we all share a common goal: To help our customers to be successful in their respective fields. We do this by applying our know-how and experience to all matters pertaining to sealing and fluid control, thus allowing them to fully focus on their core business."

Peter Müller, CFO

"At first glance, internal finance activities such as asset preservation, risk minimization or keeping the books in order may not have much to do with our customers. Indirectly, however, it does: By executing these tasks in a responsible and committed

manner, we ensure that KLINGER will be around tomorrow to continue to provide services around the globe. Within the financial world we also have a responsibility towards the various authorities and watchdogs – precise and transparent finance reporting is therefore another major task my team undertakes in order to ensure compliance with financial regulations. The work of a CFO, however, is not exclusively centered on financial statements: I also see the finance field as a tool to shape the overall

strategy and direction of the Group. Are we investing into the right companies, services and assets? In this context, our responsibility is to support our future corporate success and to aid our Group in mastering today's business challenges."

Christoph Klinger-Lohr, Member of the Board

"Effective January 2018, I will be joining Peter and Daniel on the KLINGER Holding management board. In my new role as

a Member of the Group Management Board, I will focus on establishing a unit comprising KLINGER Sheetting & Gasket manufacturers. Adhering to our principle of responsibility & engagement, this new entity will be characterized by exceptional technical capabilities and market drive. As our customers know, both aspects already exist in abundance within our Group of companies – the challenge will be to align them and create a highly effective team."



BUSINESS UNIT SEALING
Christoph Klinger-Lohr



BUSINESS UNIT FLUID CONTROL
Daniel Schibli



BUSINESS UNIT EXPANSION JOINTS
Peter Müller



BUSINESS UNIT SERVICE & DISTRIBUTION
Daniel Schibli



GROUP SERVICES
Peter Müller

FINANCE & CONTROLLING

- » Mergers & Acquisitions
- » Legal
- » Tax

GROUP SERVICES

- » Marketing & Communications
- » Digital Strategy
- » Trademarks & Patents

SUSTAINABLE

KLINGER Schöneberg awarded EcoVadis silver status



Werner von Siemens, the founder of the German technology company, is at one time quoted to have said "I won't sell out the future for a quick buck." Today, this attitude is more important than ever. In order to counter the effects of global warming and to promote environmental protection, responsible companies are doing "their part" for a sustainable future. Knowing full well that words have to be followed by deeds, the German valve manufacturer KLINGER Schöneberg has undergone and passed an EcoVadis assessment to underline its commitment to a world worth living in.

Founded in 2007 and boasting a staff of more than 300 talented individuals from 40 countries, EcoVadis has a clear-cut mission: The agency firmly believes that companies should not only be measured by their financial and business-related success, but also by means of their contribution towards a sustainable future. As a consequence, its mission is based on three fields of action: First, making sustainability performance measureable and benchmarkable.

Second, according to EcoVadis, transparency should be transformed into a scalable and efficient process for both suppliers and buying organizations. And last but not least, the combined efforts of the agency and its customers should facilitate continuous improvement and innovation. So far, more than 150 leading companies around the globe, including "names" such as Verizon, Nestlé, Johnson & Johnson, Heineken, Coca-Cola Enterprises, Nokia, L'Oréal, Bayer, Alcatel-Lucent,

ING Bank, Air France-KLM, Centrica/British Gas, BASF, and Merck have taken up the sustainability challenge. And KLINGER Schöneberg of Germany has recently joined their ranks.

Responsibility matters

"As a company, we have always placed a great importance on values such as social responsibility, environmental awareness, ethics and sustainability," explains KLINGER Schöneberg's Managing Director,



The valve specialist KLINGER Schöneberg in Graben-Neudorf (near Frankfurt, Germany)

Manfred Gossmann, and adds: "We were very interested in finding out how much effect our initiatives were having, when compared, for example, to other companies within the industry." An audit by EcoVadis, however, is not for the faint-hearted: Even signing up for the assessment process proves you are fully committed, as the EcoVadis methodology, which is at the core of the agency's CSR (corporate social responsibility) system, covers 21 criteria across four topical fields – the environment, social aspects, ethics and the supply chain as well their individual subcategories.

Keeping score

Following the completion of an EcoVadis audit, companies are awarded a score and provided with a detailed report. It allows for the analysis of strengths and weaknesses and also gives insights into areas where improvement may either still be possible or, on the other hand, definitely necessary. According to the agency, around 20,000 companies – among them several of KLINGER's customers and business partners – have already been graded in accordance with their performance. So how did KLINGER Schöneberg fare? Based on information provided by EcoVadis, the

average sustainability score (as of October 2016) within the industry is 42.2. KLINGER Schöneberg, however, was graded significantly higher and can enter a score of 56 points into its corporate sustainability books and be proud of its newly acquired "silver status". Manfred Gossmann is quick to point out that while the company is satisfied, this only marks the beginning: "The result we have achieved is just the status quo. What we want to do now is continuously improve. As a consequence, corresponding measures have already been initiated."

Know your suppliers

In the sense of John Donne's famous poem, no company is an island within the business world. This is especially true when it comes to corporate social responsibility, which extends far beyond one's own company. Bluntly spoken, an entity that advocates environmental protection, but employs a subcontractor with a record of midnight dumping, is not acting responsibly. "Being

part of the CSR platform of EcoVadis, and using it, offers us multiple benefits," explains Manfred Gossmann, "on the one hand, it clearly shows the public, our customers, our suppliers and our partners that we are committed to sustainability. On the other hand, it enables us to ensure that our contractors uphold the high standards we expect from them. At the end of the day, this allows us to align our entire supply chain with the principles we firmly believe in." And while many improvements are sure to follow, one thing is already clear today: Transparency between business partners fosters trust. And trust allows companies to innovate together and come up with even more environmentally friendly solutions for the future. And this ultimately safeguards the world we live in. And the world our children will inherit from us.



VIENNA CALLING

FRANZ GYSI AG and KLINGER host 13th Swiss District Heating Conference



The Swiss delegation visits the KLINGER Holding

Vienna is a "classic" tourist destination for all those interested in the fine arts, opera and an abundance of baroque. Austria's capital, however, also attracts a very different kind of clientele every year: Those wishing to know more about its district heating network, which is one of the most extensive in Europe. And in this regard, two "old hands" in the field, the FRANZ GYSI AG and KLINGER, are more than happy to provide.

Franz Gysi, co-organizer of the Swiss District Heating Conference held together with his partner KLINGER, believes in offering his colleagues, his partners and his customers only the best. This is why, when it comes to the topic of district heating, he

annually invites his industry colleagues to a trip to Vienna and its periphery. While the various sights and landmarks are without doubt also very pleasing to the eye, Franz Gysi primarily comes here for a very different reason with his "Fernwärmetagung": Vienna's district heating network, operated by "Wien Energie" via its district heating arm "Fernwärme Wien", features state of the art technology, a transport network of roughly 1,100 kilometers and a wide range of environmentally friendly innovations in the field of district cooling.

Kick-off

Lasting from August 21 to 23 and comprising 25 participants, the 13th Swiss District Heating Conference officially started with a tour of the Spittelau waste incineration plant. Located in the very north of

Vienna's ninth district and situated close to a regulated former arm of the Danube, the "Donaukanal", the plant is Vienna's second largest district heating contributor with an installed capacity of 460 MW.

Erected in 1971, the waste incineration plant has been repeatedly modernized over the years to incorporate technological developments in the field of flue gas cleaning. It is interesting to note that the artistically rendered facade, which has in the meantime turned into one of Vienna's many landmarks, was actually not part of the original design: Following a major fire at the plant in the year 1987, Vienna's utility commissioned Fried-ensreich Hundertwasser to give the facility its "new look", which, according to the artist, combines technology, ecology and the arts. Today, the waste incineration plant burns around 260,000 tons of waste per year and can thus feed an annual average of 60 MW of heat into the district heating network for base load coverage purposes. Vienna's functional work of art is also used to help manage peak loads: Five additional gas and gas/oil-fueled high-temperature boilers can produce up to 400 MW of thermal power; the installed electrical capacity amounts to 6 MW. In total, the plant generates an annual amount of 40,000 MWh of electricity and 470,000 MWh of heat – more than 60,000 households in Vienna are provided for in this manner.



"Fernwärme Wien" is in charge of Vienna's district heating network

Coolaid

Taking into consideration that most of us desire the exact opposite on especially hot days in August, the 25 Swiss delegates were also treated to another service provided by the Spittelau plant: District cooling. According to "Wien Energie", the demand for district cooling in Vienna is increasing by an average of 15 percent per year, which corresponds to around 10 to 20 MW or, expressed by means of a different figure, between 200,000 and 400,000 square meters of climatized space. The energy utility's first district cooling center was established ten years ago. Today, a total of 13 such centers provide a total output of 120 MW. The Viennese industry colleagues, however, are quick to point out that the solutions employed at the plant are climate friendly: Compared to conventional methods, Vienna's district cooling efforts consume five to ten times less primary energy and result in similar CO₂ savings. District cooling generation is mostly carried out in so-called absorption refrigeration units, which are powered by heat as opposed to electricity. As the power generated in the waste incineration plant also leads to waste heat, this can immediately be used for refrigeration purposes. "Solutions such as this one show that district heating and district cooling can actually – literally – work hand in hand. It also proves that we have not reached the zenith of these technologies.

As a consequence, cases studies such as this one are of great interest to my Swiss industry colleagues," states Franz Gysi, giving one of the reasons why the "Fernwärmetagung" is still very much in demand in Switzerland after thirteen years of co-organizing the event together with KLINGER. The other reason for attending the annual event, and some colleagues have done so repeatedly over the years, is of course networking. "Think of science conferences. They are also attended by roughly the same circle of persons time and again. The reason is obviously to stay in touch and keep up to date with the latest developments. And in that regard, the 'Fernwärmetagung', with its many opportunities for knowledge-sharing and exchanging experiences, is no different," believes Franz Gysi. To round off the power generation segment of the conference, the participants also visited the "Arsenal" power plant in Vienna's third district. Featuring two boilers, which can be fueled with natural gas or fuel oil, it helps to manage peak loads. More than 70,000 households, almost a quarter of all private customers, rely on it for an uninterrupted supply of district heating.

From generation to production

Having visited those responsible for providing Vienna with energy, the second part of the "Fernwärmetagung" focused on those who ensure that the supply of

electricity and heat remains uninterrupted. Leaving Vienna for the Lower Austrian town of Gumpoldskirchen, the attendees were given valuable insights into the manufacturing processes at the plants of both KLINGER Dichtungstechnik and KLINGER Fluid Control, which span a total of 13,000 square meters. "We introduced our guests to our quality management system and our new products, KLINGER CompenSil, KLINGERtop-chem 2000 soft and KLINGER SLS Multiplus," explains Wolfgang Kohlbacher, sales manager at KLINGER Dichtungstechnik. And his sales colleague, Gerald Vasek, adds: "We also showed them a video detailing our gasket production and invited them on a tour of our redesigned labs." KLINGER Fluid Control, the Austrian valve manufacturer of the Group, presented the various departments involved in the valve production process. Europe's only testing facility for ball valves in full compliance with the EN 488 standard and the work of KLINGER Fluid Control's R&D team impressed the district heating, planning and pipe construction experts to no end. "For us, quality does not begin with the production process. It starts with valuing our customers. It was therefore a pleasure to have our Swiss colleagues here for a visit," states Manfred Stockinger, Managing Director of KLINGER Fluid Control.

Last call

Everything good, however, must at some point come to an end. In the case of the 13th "Fernwärmetagung", this meant a final get-together at the KLINGER manor house, which also serves as the KLINGER Holding's headquarters. Daniel Schibli, CEO of the KLINGER Group, and from Switzerland as well, personally thanked the participants for attending and wished them a pleasant journey home. Franz Gysi summarizes the event: "I believe the district heating conference was also a success in this year. We were able to show our attendees a wide range of technologies and solutions employed by our Viennese colleagues. Coupled with our tours of the KLINGER plants, this means that our guests got to see both sides: On the one hand, solutions in action, and, on the other hand, the products that help make these solutions successful."



Touring the KLINGER Fluid Control production area

HOME BASE

KLINGER Gebetsroither's new headquarters



KLINGER Gebetsroither, a full solutions provider for gaskets, valves, technical products and hot water units, is a venerable company whose history spans an impressive 99 years so far. Founded in 1918 in Amstetten, Lower Austria, the company soon moved to Wels in the Federal Province of Upper Austria, where it has put down firm roots and has thrived ever since. After joining the KLINGER Group in 1975, the steady growth of KLINGER Gebetsroither has necessitated a number of local moves to larger premises over the years. Now, the company has taken the next logical step in its evolution by commissioning new headquarters.

The company selected the town of Marchtrenk, located just outside of Wels, as the site of their headquarters and began construction on May 18, 2016, with a groundbreaking ceremony. Rather than adapting an existing structure, KLINGER Gebetsroither decided to erect new headquarters from the ground up, commissioning a building

that can fulfill all of the company's requirements in a single location. Doing away with separate buildings and multiple sites, the new headquarters unifies all divisions under one roof.

As architect Hermann Eisenköck explains, form follows function, but not at the expense of quality. "The newly constructed office, production, and warehousing facilities are



primarily functional buildings, but given the history and tradition of the company, the quality of materials, as well as the modern, contemporary design received special attention."

Regional ties

KLINGER Gebetsroither and Upper Austria have become inextricably linked and as such, the decision to locate the new headquarters in the vicinity of Wels was a foregone conclusion. Remaining in the area kills two birds with one stone: Close ties to important customers remain intact, while the company's staff – the majority of which is now employed in Marchtrenk – will not be

"The newly constructed office, production, and warehousing facilities are primarily functional buildings, but given the history and tradition of the company, the quality of materials, as well as the modern, contemporary design received special attention."

Hermann Eisenköck, Architect

inconvenienced by extended commutes to and from work. Additionally, the KLINGER Group values its principle of "Global Regionality". Thus, investing within the region specifically and committing to Austria



"Marchtrenk's growth and development requires strong economic partners from the private sector. As such it is gratifying that KLINGER Gebetsroither has chosen Marchtrenk, which has been voted Austria's most popular town of 2016, as the location of their new headquarters. I wish them lots of success and am looking forward to a great working relationship."

Paul Mahr, Mayor of Marchtrenk

as a business location is an important aspect of corporate philosophy. As a region, Upper Austria is an attractive business location for major industrial corporations and global players. The town of Marchtrenk, in turn, is enthusiastic to welcome KLINGER as a provider of jobs in the region and has done its utmost to facilitate and expedite the construction of the new headquarters with a minimum of red tape.

Marchtrenk's Mayor Paul Mahr is optimistic and believes that KLINGER Gebetsroither's presence will be a positive factor: "Marchtrenk's growth and development requires strong economic partners from the private sector. As such it is gratifying that KLINGER Gebetsroither has chosen Marchtrenk,

which has been voted Austria's most popular town of 2016, as the location of their new headquarters. I wish them lots of success and am looking forward to a great working relationship."

Efficiency

Less than a year after the groundbreaking, the facility went into use in December 2016, while the official opening celebration, was set to coincide with the 99-year anniversary in May 2017.

Markus Eder, Managing Director of KLINGER Gebetsroither sums up the advantages of the new building: "The former location in Wels had grown and developed organically over the years, but eventually

became incompatible with modern business processes and practices. This is why we decided to commit to the construction of our new company headquarters. The new location is made to measure and offers room for expansion and growth with 1,500 m² of additional development space."

The new headquarters certainly have room for growth and house not only offices, production, and warehousing facilities, but also offer space for a certification training facility. Furthermore, efficiency has become a key word at the new facility, since the building's design relies on the latest energy efficiency and resource conservation principles, which should lower operating costs in the long run. Designing and constructing a building has also given KLINGER Gebetsroither the opportunity to factor in all of their workflow requirements and processes, resulting in efficient communications and business practices.

With room for growth, strong regional ties, and efficient workflows, KLINGER Gebetsroither is set for another century of growth to the benefit of both new and existing customers.



HANDS-ON

KLINGER BV offers a unique customer experience



Technical expertise and industrial installations could be considered a tough sell by many, but KLINGER BV in Rotterdam has created a new and accessible approach to the subject. The KLINGER Practicum showroom is a state of the art facility, which incorporates numerous products in a simulated process environment, allowing customers to experience the myriad applications first hand.

Live situations

At a glance, the facility might be considered a showroom, with its shiny floors, neat pipes, its gauges, and bright switches, but it goes beyond presenting products and components in sleek surroundings. Rather, it is a fully functional system that incorporates a wide variety of products of the KLINGER catalog. Valves, vents, and process controllers, spray shields, custom hoses, joints as well as automation equipment, and gauges are simply items in a long list of products. Practicum places them all in context and makes them

come alive, demonstrating the functions, characteristics, and effects of individual components.

But the system can do much more; it can run diverse simulations of complex practical situations. After all, KLINGER BV's business is not merely the selling of components, but lies in providing advanced integrated solutions to its clients. Know-how and expertise are at the company's core, and this is exactly what the Practicum installation offers. The experts at KLINGER BV can give demonstrations of the various applications of process controllers, automation setups, and control valves in one place and explain the different uses for pneumatic and electrical control valves. At the same time, more complex or abstract concepts can be exemplified. Among other things, it is possible to illustrate the water hammer effect and its detrimental consequences within a system, while operational processes, such as pressure and flow adjustments, or the characteristics of different valves – including automation

capabilities and operating parameters – can be shown in practice.

Training

Practicum is more than just a showpiece. It provides scenarios and configurations for a multitude of theoretical and practical training situations, covering subjects such as mechanical seals, stuffing boxes, and flange assembly. In particular, the work area represents a training space for flange assembly and flange management situations, while also serving as a venue for various theoretical and practical training courses. The integrated conference area with seating and multimedia screens allows for effortless merging of theory and practice.

Education

The facility has also been utilized in higher education. A customer with a background in teaching at one of Rotterdam's universities became interested in Practicum after hearing about it from a KLINGER BV sales engineer and subsequently booked time at the venue for the benefit of his engineering students.

Teaching in a controlled environment offers distinct educational advantages. A commercial industrial plant in full operation must limit access to many of its components and areas, and at the same time provides relatively few opportunities for hands-on training. With Practicum, on the other hand, everything is easily accessible and the installation provides a safe setting, allowing students to work with numerous components and configurations in a compact space. Additionally, space and equipment for theoretical discussion and practical work is provided, and a product specialist's expertise is always on hand to answer questions and to clarify functions. Consequently, engineering students are provided with a varied educational setting that is conducive to an engaging learning experience.

Customer oriented

The Practicum setup is versatile and educational, but ultimately it has to benefit existing and potential customers, which it does in a number of ways. It showcases the wide range of applications for individual products, as well as the quality of said



Worktables for flange management and assembly training include, amongst others, a torque wrench calibration station and practice flanges



Left: Fully operational demonstration setup. Right: Meeting space with multimedia capabilities

components. Additionally, KLINGER product specialists can provide detailed information on the performance characteristics of valves in a production environment and help with the optimal selection of products. This in turn may reduce clients' expenses by keeping maintenance costs down and improving the integrity and durability of the systems. Essentially, Practicum is a personalized and interactive

means of imparting information, which is tailored to the client's requirements, highlighting KLINGER BV's commitment to integrated system solutions and highly qualified know-how. Sharing knowledge with customers is a vital step in building trust in the KLINGER brand and services, laying a strong foundation for an excellent relationship with every client.

PRACTICE MAKES PERFECT

Kempchen trains employees of Wacker Chemie AG



Kempchen Dichtungstechnik, a German member of the KLINGER family, fills multiple roles within the Group. On the one hand, it develops and produces gaskets, packings and compensators. On the other hand, however, the company, which has been around since 1889, is also one of Germany's premier trainers for all matters pertaining to the safe as well as the correct installation and handling of gaskets and valves. Next to E-Learning offerings and workplace aids for technicians in the form of Apps, the company maintains various training facilities in the country and also provides on-site courses for customers, which can also be booked to include the "KLINGER on Tour Truck". Kempchen Dichtungstechnik recently had the honor of training colleagues from Wacker Chemie AG. To be precise, a total of 601 employees.

The Wacker Chemie AG can look back on an impressive history. Formed over 100 years ago in 1914, the company with its headquarters in Munich has spread to all key regions of the world and boasts a staff of 17,200 employees. Wacker is organized into four business divisions – Silicones, Polymers, Biosolutions and Polysilicon – and operates a total of 23 production sites around the globe. Its global presence is further enhanced by representations and sales offices in 31 different countries. Wacker's business activities extend into virtually every industry branch and include, for example, products for the construction industry, for the healthcare sector and life sciences as well as for the automotive, the textile or the pulp & paper industry.

Maintaining the standard

As a producer of a wide range of chemical products that include, amongst others, silanes used for the creation of insulation layers in semiconductors, Wacker Chemie AG understands that two factors are

decisive for international success: Plant downtimes must be kept at an absolute minimum in order to ensure continuous production. Plant safety, on the other hand, must be maintained at a high level at all times in order to guarantee that no harm comes to employees, goods, plant infrastructure or the environment. As an active supporter and promoter of plant safety, Wacker Chemie AG co-authored a guideline on the correct installation of flange connections in process plants in 2011 together with other "names" such as BASF, Bayer and Merck, and subsequently used it as an internal standard. Bearing this in mind, it goes without saying that the German chemical company has welcomed the introduction of the EN 1591-4 (Flanges and their joints – Qualification of personnel competency in the assembly of the bolted connections of critical service pressurized systems), which offers a way to certify that bolting and process engineers are capable of carrying out their safety-critical work in a qualified, and above all, correct manner.

And in order to train a total of 601 employees at the business locations Burghausen and Nünchritz, Wacker Chemie AG contacted several training providers, among them Kempchen Dichtungstechnik.

Tailored training

"We were one of several companies asked by Wacker Chemie AG to submit a quotation regarding the training of more than 600 employees at two business locations in Germany," confirms Dirk Schmidt, Sales Director of Kempchen Dichtungstechnik, and adds: "According to the customer, we were able to win this project as a result of several factors that spoke in our favor. They included, amongst others, the mobile and flexible solution we were able to offer via our mobile training platform, the 'KLINGER on Tour Truck'. Furthermore, Wacker was also quite impressed by our proposed method of familiarizing the employees with the contents of the EN 1591-4." What Dirk Schmidt is referring to here is the fact that Kempchen Dichtungstechnik firmly believes that, next to know-how, the "know-why" is also of great importance. In other words, understanding what is actually occurring in a flange is just as important as teaching the approved installation and handling methods. "Our courses include special visualization methods such as for example digital photogrammetry. This enables our participants to see the effects of their work on a pipe system and really hammers home the effects of a sloppy installation or the application of an incorrect torque," explains Dirk Schmidt.

Good marks

As already stated, a total of 601 employees were trained in compliance with the requirements of EN 1591-4 at two business locations of Wacker Chemie AG. "591 of the participants successfully graduated from the course and were certified in accordance with the standard," reports Ulrich Dönges, Head of Training at Kempchen Dichtungstechnik, and adds: "Five participants were subjected to a re-examination of their acquired knowledge and subsequently certified. The remaining five participants, with the approval of their superiors, decided to abstain from taking the test a second time."



Applying the correct torque is imperative for plant safety

Personalized training

Next to obviously being able to train and certify large quantities of students in short periods of time – Kempchen Dichtungstechnik carried out a total of 38 training days in 2016 and has so far completed 28 days of trainings in this year – quality is also of great importance: "Companies with more than 300 participants attending our courses are not only generally taught in accordance with the of EN 1591-4, but also with regard to their company-own specifics," says Dirk Schmidt, "this covers the individual pipe classes, bolted connections and flange connections utilized by the corresponding company." Having completed their task

for Wacker Chemie AG, Kempchen Dichtungstechnik took a moment to reflect on the reasons for the successful outcome: "I believe that our flexibility, our mobility and our willingness to adapt to the on-site requirements are our key success factors," summarizes Dirk Schmidt, and adds: "We can offer trainings at the business locations of our customers, at our very own training facilities or wherever they are required – the latter is made possible by the 'KLINGER on Tour Truck'. Last but not least, our ability to integrate the specifics of a plant operator into our EN 1591-4 offering represents a significant value add for our customers."



Kempchen Dichtungstechnik trained a total of 601 employees of Wacker Chemie AG

MOBILE LEARNING

KLINGER on Tour Truck heading through Europe



E-Learning and the virtual classroom have brought a lot of changes to how we acquire knowledge in educational institutions as well as in corporate environments. If your job happens to be "hands-on", however, then your theory needs to be complemented by practice. Understanding this basic fact, KLINGER took the best of both worlds and introduced the "KLINGER on Tour Truck" in 2014: A mobile training platform that deploys to your business location.

Having technicians attend advanced courses critical to their work is without doubt a necessity in order to ensure that all safety, efficiency and operational excellence requirements can be met at all times. Being able to spare colleagues, who are de facto



The KLINGER on Tour Truck

not on-site when they attend their various trainings, however, may very well pose a problem – especially in cases where staff is continuously downsized to reflect the prevailing economic conditions. Aside from this fact, sending employees away for further education purposes is a costly endeavor, which also incurs additional costs such as travel and accommodation expenses. Very much aware of all these facts, KLINGER began offering a viable alternative three years ago: "The KLINGER on Tour Truck".

Coming to you

The major advantage of the "KLINGER on Tour Truck", which comes equipped with state of the art training workplaces, is that it can be deployed to virtually any business location of a customer. Everything that the to be trained employees need



Inside KLINGER's mobile classroom

in order to acquire, for example, the DIN EN 1591-4 certification (Flanges and their joints – Part 4: Qualification of personnel competency in the assembly of the bolted connections of critical service pressurized systems) is brought to the training location – including a wide assortment of flanges, valves and gaskets as well as trainers.

Touring Central and Eastern Europe

As of October, the "KLINGER on Tour Truck" will be on assignment in the heart of Europe. Its first stop will be a renowned oil, gas and petrochemicals company in Hungary, followed by an appearance at the Bucharest International Technical Fair in Romania. From mid to end October, KLINGER's mobile training platform will help to train and certify the employees of two major Austrian energy providers. "Our 'KLINGER on Tour Truck' has already made quite a name for itself in other parts of Europe," explains Gerald Vasek of KLINGER Dichtungstechnik, adding: "It is therefore gratifying to see that interest in this very attractive, cost-effective and flexible alternative to classic training offerings is also gaining momentum in Central and Eastern Europe."

Further information:

<http://ontour.klinger-international.com>

TRIED AND TESTED

KLINGER companies acquire new certificates



Responsibility & engagement manifests itself in multiple ways within our Group of companies. There is, for example, the Code of Conduct: It governs how KLINGER employees act and conduct business with partners, suppliers and customers. Internationally approved and recognized certificates are another way to underline that KLINGER does not cut corners when it comes to best practice, quality, efficiency and environmental awareness.

Certificates declaring compliance with the provisions of quality and environmental management systems such as ISO 9001, ISO 14001 or EMAS are important for all parties involved. Customers can rely on the manufacturer having achieved a high level of quality in the production of his products and can be certain that specific manufacturing standards and processes, which help to reduce the impact on the environment, are being executed and maintained. And although ISO or EMAS audits are intense and time-consuming, they also offer the companies that undergo certi-

fication a wide range of benefits: On the one hand, they are a form of "living proof" that the holder of such a certificate is fully committed to quality in his processes and ultimately in his products. On the other hand, they display a manufacturer's willingness to improve what has already been achieved: This is due to the fact that an ISO or EMAS certificate is not awarded once and is then valid forever. Instead, should the company wish to retain its ISO or EMAS certification after the designated period of validity, it has to undergo a reassessment in order to keep the coveted "high-quality" or "environmentally-friendly" title.



Certified

"We are proud to report that KLINGER Fluid Control of Austria has successfully renewed its ISO 9001, ISO 14001, its EMAS and its PED (Pressure Equipment Directive) Module 'H / H1' certificates," states a visibly proud Andreas Bunge, in charge of quality assurance at KLINGER's manufacturer of industrial valves. The Module "H / H1" of the PED, which signifies that a company is certified to provide pressure equipment within the assessed quality system, has also been awarded to Turkey's leading manufacturer of metal expansion joints, POLITEKNIK. The company joined the KLINGER family in 2016. Both POLITEKNIK and KLINGER Fluid Control are therefore entitled to add the corresponding "Notified Body Identification number" to their respective CE markings for metal expansion joints and industrial valves respectively.

BEST PRACTICE

The "Kempchen Praxistage" 2017



Klaus Schonebeck, Managing Director of Kempchen Dichtungstechnik, opening the Praxistage

Six years ago, Kempchen Dichtungstechnik of Germany launched an event that focuses on the challenges the various industries face in the field of sealing. Six years later, the so-called "Kempchen Praxistage" has evolved into a two-day event (the same program is offered on two separate days to ensure that everybody who wishes to attend, is given the opportunity to do so) that attracts more than 300 participants and features high-profile guest speakers from all fields, including authorities, universities and industry leaders. Held from June 21 to 22 at the Kempchen business location in Oberhausen, Germany, the sixth "Kempchen Praxistage" promised the attendees an interesting program and covered a wide range of topics.

Klaus Schonebeck, Managing Director of Kempchen Dichtungstechnik, has one timeslot and one official task in the course of the annual "Kempchen Praxistage": At 08:45 in the morning, he welcomes the attendees to the event, followed by a brief

overview of the program, which culminates in a final discussion starting at half past three in the afternoon. And according to Klaus Schonebeck, this is precisely how it should be: "The 'Kempchen Praxistage' is not a sales event where we try to convince our customers, suppliers and industry partners that our products and services are the best available on the market," he explains, adding: "It is a conference that focuses on developments within the industry, developments that affect us all." This statement by Kempchen's Managing Director is easily verified by a look at the program of the in the meantime sixth installment of the "Kempchen Praxistage": Not a single talk on the agenda is held by a Kempchen employee – and even if there were one, as has been the case in the past, then it would not focus on the company's portfolio, but rather on a topic vital to the industry in general. So who gets to hold a talk at the "Kempchen Praxistage"?

The right stuff

"I believe the event is so successful because we offer our guests the right mix," says Klaus Schonebeck, adding: "Our speakers

come from all walks of life: Some are active in academia, others have a background in engineering and are employed in areas related to plant operation. And we also invite members of the authorities responsible for the regulations within our respective industries to hold presentations." In other words, the conference gives stakeholders the opportunity to exchange views, insights and beliefs with an interested audience. Next to theory, the "Kempchen Praxistage", as the name already suggests, also focuses on actual practice and case studies. And the talk held by Olaf Stommel, plant engineer and Head of Maintenance at Arsol Aromatics, was no exception in this regard. The title of his presentation: "Flange management in the 2016 shutdown".

Detailed study

Arsol Aromatics is a German manufacturer of basic chemicals from crude benzene. These include styrene, cumene, cyclohexane, toluene, xylene and the company's own trademarked Arsol. All these chemicals are subsequently used in a wide range of consumer goods. In the course of his talk, Olaf Stommel detailed the steps necessary



The attendees also had the opportunity to tour Kempchen's production facilities

to carry out flange maintenance during a shutdown, including the necessary requirements and regulations that govern the process, examples of operating sheets for documentation and verification purposes as well as how corresponding valves should be marked. Furthermore, he discussed the material management aspects of his work and gave insights into the defects encountered. One such defect posed a special challenge: A gasket had to be removed from the top of the highest column of the refinery. The task at hand was made significantly more difficult due to the fact that the offending flange connection was located outside of the walkway, at a height of 68 meters. "In order to get to the flange, we had to install a suspended scaffold with the aid of a 180 ton crane," explains Olaf Stommel, and adds: "As you can imagine, this was neither a cheap nor a quickly achieved endeavor." Another thing the audience also highly appreciated about the talk held by Arsol Aromatics' head of maintenance was the open and to-the-point manner in which he also meticulously covered the details of an incident that another speaker would have possibly avoided: In the course of the

shutdown phase in September 2016, a fire broke out in one of the eleven columns of the plant. Around 60 firefighters were quickly on site, putting out the fire at a height of 50 meters nevertheless proved challenging and lasted from the early morning hours to around noon. Luckily for all participants, the column was no longer in operation at the time of the fire, meaning that neither the environment nor the periphery of the plant were negatively affected. Olaf Stommel concluded his talk with pictures of the fire and the subsequent replacement of the

column head. Klaus Schonebeck: "As the host of the 'Kempchen Praxistage', having colleagues such as Olaf Stommel on board makes us especially proud. They show us how much we can learn from each other and that, at the end of the day, we are all in the same boat: Our joint mission, next to the provision of excellent products and services, is to ensure that we can operate our plants in a safe manner. This is a responsibility we all have – towards both man and the environment."

A thank you to all the lecturers:

Dr. Sascha Grünbeck,
Evonik Technology & Infrastructure

Dr. Georg Wolfgang Karl,
Consultant

Dr. Gert Lau,
Lau Engineering Solutions GmbH

Prof. Dr. Alexander Riedl,
University of Applied Sciences Münster

Frank Stargardt,
PCK Refinery

Olaf Stommel,
Arsol Aromatics

GOING ALL THE WAY

KLINGER Argentina excels at customer care



 **KLINGER Argentina can look back on more than 45 years of business activity in the country. Formed in 1971 in the course of KLINGER's evolution from a local to an international manufacturer and provider of valve and gaskets, the company has in the meantime also evolved into a well-established player in the Argentinian market. Furthermore, its headquarters in Buenos Aires have recently been modernized to enable its employees to also remain ahead when future challenges arise. What has not changed over the decades, however, is KLINGER Argentina's unwavering commitment to go the extra mile for its customers.**

According to the World Health Organization, around 21 percent of the total population of Argentina does not have a direct house connection to water and 52 percent of the population living in cities must do so without sewerage. Ensuring a steady supply of water with minimal losses therefore remains a top priority for the 19 provincial water and sewer companies, the more than 100 municipalities and the local cooperatives, which are estimated to be in the 950-plus range.

And an emergency customer call from the state-run Aguas Santafesinas, which is in charge of the aqueducts that provide the province of Santa Fe with water services, is definitely something a responsible company such as KLINGER Argentina takes seriously.

Critical loss

Cristian Gonzalez, KLINGER Argentina's Sales Manager within the company's

Industry, Water & Sewage Division, clearly recalls the emergency: "Aguas Santafesinas informed me that two of their gate valves in the province – a ductile iron DN 1000 and a DN 600 valve – could no longer be fully closed and regulating the flow of water was therefore no longer possible. According to the customer, the loss of water had reached the several-liters-range and the supply of potable water to the province via the



One of the faulty gate valves that caused an emergency in the province of Santa Fe



” For us at KLINGER, responsibility does not end when we hand over a product or provide a service."

Cristian Gonzalez

affected aqueducts would have to be shut down to avoid further loss." Fully aware of the fact that Aguas Santafesinas provides around 60 percent of the population of Santa Fe, which is made up of 15 localities, with water, Cristian immediately understood that finding a solution had just become his top priority. After assuring the customer that help was on the way, he got in touch with the supplier of the impaired valves. "I explained what had happened and requested their full cooperation in order to remedy the situation," remembers Cristian. The technical information and the factory testing certificates submitted by the supplier enabled KLINGER Argentina's Sales Manager to eliminate his first suspect: According to the documentation, the gate valves had left the premises in perfect working order.

On location

Being committed to its customers is firmly embedded in KLINGER's company DNA and without doubt one of the reasons why the family-run enterprise is "trusted, worldwide." In corporate lingo, this attitude is frequently referred to as the "willingness to go the extra mile". In the case of KLINGER Argentina, however, the aforementioned extra mileage resulted in a total of 600

kilometers – the distance from Buenos Aires to Santa Fe. "Having, with a high probability, excluded the integrity of the gate valves as the source of the problem, we had to inspect the valves on-site," explains Cristian. His team, headed by Emanuel Brizuela, an experienced salesman with excellent technical expertise, arrived at their destination less than a day after KLINGER had been notified by Aguas Santafesinas to check the situation. Equipped with all the necessary tools, aids and instruments of the sealing trade, they were quickly able to remedy the problem and ensure the valves could be fully closed. "If the valve itself is not faulty, then the fault is most likely down to human error," knows Cristian, adding: "This is why trainings, which focus on the correct installation and handling of valves are so important."

In the case of KLINGER Argentina's customer, the team identified not one, but two causes: First, the valve had not been correctly installed and second, an incorrect torque had been applied. These two factors, literally working in tandem, had prevented the gate valves from fully closing. Needless to say, Aguas Santafesinas was overjoyed when they were told the good news by KLINGER's sales manager and praised the

professional and timely response to the their emergency call. For Cristian, however, keeping a cool head in a crisis and making a customer's requests his priority, are just part of his daily business: "For us at KLINGER, responsibility does not end when we hand over a product or provide a service. Instead, we are fully committed to supporting our customers wherever and whenever we can." And Alberto Pinter, KLINGER Argentina's Managing Director adds: "What makes KLINGER unique is the fact that it can bring the joint knowledge of an entire Group of companies to bear in order to solve any given problem. Coupled with our own decade-spanning, local expertise in the field of fluid control and the untiring efforts of our team, this means we are ready to face any challenge – even if the challenge does not involve our own products, and even if the challenge is hundreds of kilometers away."

PROPELLING THE FUTURE

Westad with new business in LNG industry



Taking environmental protection seriously is a must if we wish to keep our Earth habitable for future generations. Our seas, however, have been regrettably less addressed in this context over the decades. Instead, the motto has mostly been "the solution to pollution is dilution", implying that pollutants in our oceans would be sufficiently dispersed and/or dissolved within the massive volumes of water and should thus no longer pose a threat. With the upcoming launch of Aframax LNG-powered deep-sea vessels that no longer run on dirty, heavy fuel oil or other conventional marine fuel systems, responsible companies are now taking a firm stance with regard to conserving our oceans. And Westad is one of them.

Using liquefied natural gas to propel seagoing vessels is not exactly a new technology. The first ship to actually be powered by LNGs instead of simply transporting them from port A to port B was launched in the year 2000. Not surprisingly, taking into account where Westad itself is at home, the small LNG-powered ferry that

kicked off a minor technology revolution operates across the Norwegian fjords and serves to transport passengers. Since then, several hundred ships have had their conventional propulsion systems replaced by gas or dual fuel systems. What the retrofitted ferries, supply vessels, coastal tankers and container ships all have in common, however, is their relatively small engine capacity. For Westad, this meant only minor opportunities for new business, as other types of valves than those manufactured by the Norwegian colleagues are usually utilized for the surrounding piping systems. "Westad has been supplying butterfly valves to the Maritime and Oil & Gas industry for more than 40 years, in other words since the early days of transporting LNGs with tankers by sea," explains Jørn-Inge Throndsen, Managing Director of Westad, and adds: "At present we have an installed base on LNG tankers in the 200-plus range, meaning that between 40 to 50 percent of the world's fleet currently sails with valves from Westad." According to Jørn-Inge, Westad stands a good chance of not only continuing to supply valves for tankers transporting LNGs, but to also supply their products for those deep-sea tankers that will in the near future be propelled by them.

Enter Aframax

"The Russian operator Sovcomflot recently contracted the shipyards of Hyundai Heavy Industries in South Korea to manufacture the first LNG-powered Aframax-class deep-sea tanker," confirms Jørn-Inge Throndsen, "upon its completion in the third quarter of 2018, the vessel will be chartered to the major oil company Shell, which will use the Aframax to underline its strong focus on ensuring improved marine protection." The feature that clearly distinguishes the new vessel from conventional models is its dual fuel engine design: When running on LNGs, the ship will release 90 percent less sulfur oxide (SO_x), more than 80 percent less nitrogen oxide (NO_x), and over 15 percent less carbon dioxide (CO₂). As natural gas is used to power the engines, conservationists are quick to point out that the technology does pose its very own potential environmental challenges: Methane has a 20-year global warming potential, which is 86 times greater than that of CO₂. Should a so-called "methane slip" occur, i.e. the gas leaks through the engine in an unburned state, then the positive effects of an LNG-engine are, in the best-case scenario, effectively nullified. What all stakeholders can agree upon, however, is that the Aframax requires a

lot more power than previous LNG-powered vessels, which is where Westad comes into play.

Westad on board

"The piping systems in a ship with a deadweight tonnage (dwt) of 114,000 are obviously going to be significantly larger," states Jørn-Inge, explaining why the term

"Aframax" has become a synonym for new business at Westad: "All of a sudden, there is a demand for butterfly valves in LNG-propelled ships." And Westad's initial assessment has in the meantime proven true: The company was recently awarded a contract to supply cryogenic butterfly valves for the engine systems on a total of four Aframax tankers.

Look to windward

"LNG fuel system projects are admittedly smaller in terms of business volume," says Jørn-Inge, adding: "we are confident, however, that this market will grow and that the demand for LNG-powered propulsion solutions will significantly increase. Furthermore, various entities have already sent very clear signals that they are very much in favor of a further shift from conventional to LNG-powered engines." The entities hinted at by Jørn-Inge are, amongst others, the International Maritime Organization (IMO) as well as the governments of several major countries. Continuing the trend towards the adoption and expansion of eco-friendly policies and a focus on "green energy" in shipping should help to cement the importance of LNGs as viable alternatives to standard propulsion methods in the maritime industry. And when this happens, Westad, having already earned its spurs with the successful completion of the first four Aframax tanker orders, will be ready: "What we are doing here is actually applying two fields – our maritime as well as our LNG expertise – in which we both have an excellent track record," concludes Jørn-Inge, adding: "So yes, I believe we will be able to fully satisfy all present and future LNG requirements, no matter whether the task at hand is transportation or propulsion-related."



Aframax are medium-sized tankers with a deadweight tonnage between 80,000 and 119,999

WESTAD WELDS

Westad invests in laser technology



Westad makes use of powerful beam welding technology

Conservative industries are generally characterized by very precise product requirements and very little or no room for either improvement or innovation. While this may be true, it has certainly not kept Westad from seeking more efficient and cost-effective ways to provide the services its customers demand. The latest innovation: Following an investment of slightly less than 1 million euros, Westad now relies on powerful laser beam welding technology in its manufacturing processes.

Just as there are valves for just about every application in the process industry, individual industries also feature highly specific valve types and characteristics. In this context, the maritime industry is no exception: The disks of LNG valves, for example, have to be coated with an additional layer – typically Stellite, a cobalt-based material – in order to ensure that the sealing surface cannot be scratched or develop other defects. In the past Westad outsourced this part of the production process, also known as

"hard facing", to a subcontractor in Norway. "Contracting a third party to do this job cost a substantial amount of money every year," remembers Jørn-Inge Throndsen, Managing Director of Westad, and adds: "As a supplier of high-quality and critical valves, we came to the conclusion that it would make more sense to integrate this part of the manufacturing process into our

core business in order to achieve optimal control in terms of both quality and output." What followed was extensive research on the side of Westad into alternative solutions.

Marine 4.0

After identifying, discussing and subsequently dismissing several proposals, the Norwegian colleagues finally "struck



The control unit of Westad's new welding cell

gold" in the Industry 4.0-related field of additive manufacturing, which relies on 3D design data to build up a component – layer by layer – by depositing material on another surface. In the case of Westad, the technique is called laser cladding or laser deposition: A stream of the desired (metallic) powder is fed into a focused laser beam as it scans across the target, the disk of the LNG valve. Upon cooling, it leaves behind a coating of the chosen material, i.e. the laser-precision applied layer, which will in future protect the valve from damage and thus potential leakages. At the same time, the new technology also offers both Westad and its customers a wide range of benefits: Compared to traditional electron beam welding, laser welding is achieved at twice the speed but with significantly less heat to the base material. This also ensures that the additive mixes less with the base material, resulting in a cleaner surface, which again means less final machining. And thanks to the underlying high-precision additive manufacturing algorithms, the process is also indefinitely repeatable and requires significantly less additive material to complete.

Investment

"We have been the proud owner of a fully automated welding laser beam cell since October 2016," explains a visibly proud Jørn-Inge, "it features its very own 6-axis ABB robot which enables us to treat even the most complex surface structures." And the company has every reason to be proud: The first LNG discs manufactured with the new technology were delivered less than half a year later in March 2017. And Statoil, Norway's main oil company, has in the meantime revised its general specifications for cladding/hard facing to include Westad's innovation. At present, Westad is the only company to currently meet the requirements of Statoil's TR2000 standard.

New business for Westad

"We are continuously adapting the laser welding technology to meet the very specific requirements of the marine industry," confirms Jørn-Inge, adding: "For example, we have recently partnered up with another company to create a new type of butterfly valve that will require laser welding. Furthermore, we are also looking at



The 6-axis welding robot manages even the most complex tasks

related industries, which work on the basis of similar principles: Take, for example, the subsea field where a technique comparable to cladding is used to protect piping and connector products against corrosion and erosion." However, the laser welding technology should not be exclusively limited to the marine industry and Westad is also

looking beyond its own field of expertise: Surface-welding discs for metal-sealing double-offset valves, anti-corrosion treatment or wear coating inside of valve bodies are just a few of the likely scenarios that customers from related or other industries may find attractive.

REUNION

Thermoseal holds annual DRP Council Conference



This year's DRP Council Meeting was held in the mountains of Southwestern Pennsylvania

Once a year as the summer starts to wind down, Thermoseal hosts its annual DRP Council Meeting. The Distributor Relationship Program (DRP) is a partnership created to establish a mutually beneficial business relationship with a select Group of MRO distributor customers throughout the United States. The ultimate goal is to increase market share for all interested parties.

The 2017 DRP Council Meeting was held at Nemacolin Woodlands Resort in Southwestern Pennsylvania. At the 2,000 acre mountain lodge, guests enjoyed the

beautiful weather and breathtaking views of the Allegheny Mountains. The meeting was kicked off with a welcome reception and dinner where new members were introduced and all guests could network.

Scott Peters started the presentations with an overview of Thermoseal's certification to the new ISO standard 9001:2015. The standard – which underwent three years of revision work by experts around the globe – replaces previous versions and sets out the requirements for a quality management system. In the course of the conference, Scott also communicated the KLINGER Group's new management and operational

structure. The recent launch of Thermoseal's E-Commerce Internet-based web store was also part of the agenda.

Other presentations from Thermoseal's sales team included potential new products, creative partnerships, new offerings including the KLINGER Sentry Gasket and FlangeGuards spray shields, and how to gain credibility with the correct gaskets and proper installation in the field.

Honored tradition

"Thermoseal's DRP was created nearly 25 years ago," explains Scott Peters, Managing Director at Thermoseal, adding:



Scott Peters, Thermoseal's Managing Director (right) presents the DRP Top Performer Award to Stephen Abbot, President of Dooley Gasket and Seal



"The goal of the program is to develop and enhance a working partnership between our company and the distributor customer. These members are offered competitive pricing, consigned inventory with monthly usage reporting and invoicing and special payment terms in agreement of market communications, accounts development and continuous sales growth.

Before dinner in the Field Club's Lodge, Stephen Abbot, President of Dooley Gasket and Seal, a family-run fabricator located near Philadelphia, was presented with the DRP Top Performer Award for the considerable growth achieved in year over year sales.

Everyone's a winner

The Council Meeting concluded with a friendly sporting clays competition at the Field Club's Shooting Academy. Groups were challenged to shoot moving clay targets with shotguns from different shooting stations. Three trophies were given to shooters: Top Gun (first place), Runner Up (second place) and Most Honest (last place). And having successfully completed this year's annual DRP event, one can be very certain that both Thermoseal and its customers are already looking forward to the 2018 installment.

DRP'17



THERMOSEAL
A KLINGER Company

DRP Member Companies

» VSP Technologies,
Prince George, VA

» Dooley Gasket and
Seal, Broomall, PA

» GP&S Enterprises,
Parkersburg, WV

» Gallagher Fluid Seals,
Inc., King of Prussia,
PA

» KLINGER IGI, Inc.,
Wilsonville, OR

» Pioneer Industrial
Corp., St. Louis, MO

» Power Dynamics, Inc.,
Inver Grove Heights,
MN



The Field Club's Shooting Academy



Thermoseal and the DRP members

