

# World

# Klinger News

January/February 2005

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## Robco Inc Canada - Joint venture with Klinger UK

KLINGER Limited, Bradford, is pleased to announce a joint venture with ROBCO INC of Toronto, Canada.

*ROBCO has recently established a production facility for Maxiflex gaskets that incorporates two spiral-winding machines designed and manufactured by KLINGER Ltd. As a result, ROBCO can now refurbish and manufacture spiral-wound gaskets for the petrochemical and chemical industries across Canada. The partnership is the latest in a long line of successful KLINGER lead ventures with gasket suppliers and manufacturers from around the world.*



*ROBCO supplies a range of KLINGER products that include the KLINGERSIL® and KLINGER®top-chem range of sheeting gaskets, as well as KLINGER Maxiflex and Maxiprofile semi-metallic gaskets.*

*Since ROBCO was founded in 1911, the company has continued to expand and now has offices and warehouses across Canada. ROBCO supplies engineered plastics, compression packings, mechanical seals, greases, lubricants and*

*high temperature sealing products in addition to the KLINGER range of sealing products, and also provides customers with a full technical back-up service.*

*In the three years that KLINGER Ltd has been trading with ROBCO, the metallic products account has increased to CAD 800,000 per year. With the introduction of the winding machines, we expect growth to continue over the coming years.■*





## Milam PSS - a high performer

Klinger Limited, Australia

*In search for a gasket material, which would perform in very high temperature applications, the customer sought a material that is*

- Easy to handle
- Robust
- Easy to remove
- Resistant to extreme operating environments

*Milam PSS has exceeded the customer's expectations in these areas. Following strict gasket selection criteria, Millennium's Reliability Engineering group assessed the stated merits of Milam PSS and approved a trial, which by all accounts has been a resounding success.*

*3 mm gaskets were installed in flanges exposed to levels of high temperature and different media types for a period of 30 days of continuous operation.*

**KLINGER Australia's Technical Sales Rep Ray Stone (left) and Technical Support Engineer Thomas Szito inspect the spent Milam PSS gasket.**



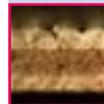
**South of Western Australia's Capital City Perth, Lyondell's pigment manufacturing facility, Millennium Chemicals recently trialed Milam PSS.**



*The spent gaskets (pictured) showed no signs of deterioration caused by media or high temperature and were acclaimed by mechanical staff for their ease of removal. Milam has also proved to be a robust material resistant to the ill effects of manual handling. The customer was said to be impressed by Milam's quality of con-*

*struction. After exposure to extreme operating environments, the gaskets were as easy to remove, as they were to fit.*

*Trials will continue with 1.5 mm Milam PSS and KLINGER will continue to work closely with the customer to find solutions and improvements for all of their industrial sealing requirements. ■*



## KLINGER® top-sil Multilayer

**A new performance standard for fibre-reinforced gaskets.**

*One year's operational experience in water at 225 °C.*

- Flange: PN40 DN100
- Gasket: DIN 2690 115 x 168 x 2 mm
- Bolts: 8 x M20 CK35 (1.1181)
- Tightening torque: 220 Nm
- Medium: Hot water, 25 bar, 225 °C continuous operation
- Installation: 29 October 2003
- Removal: 04 November 2004
- Installation location: Feed water pump (intake side) for a LaMont boiler, Chemischer Betrieb Linz, Austria



*The gasket remained tight throughout its entire working time and developed no functional problems. It was removed solely in order to document its condition after one year of operation. During removal, the gasket was easy to separate from the flange faces, with no sign of adhesion. In fact, it was still possible to discern the gasket's KLINGER® top-sil ML1 lettering. A new KLINGER® top-sil ML1 gasket was immediately fitted in its place.*

*The trial confirmed the superiority of this unique multi-layer concept over conventional, fibre-reinforced gasket materials. ■*





# KLINGER Germany wins a million-euro contract for its TEG valves

Klinger GmbH, Idstein/Germany

International contracts to reduce the world's arsenal of atomic and chemical weapons will expose valves and equipment to extremely dangerous chemicals.

Specialist German engineering company has been given the huge job of constructing plants to neutralise these highly toxic materials such as Lewisit.

The following pictures give some idea just what such dreadful chemicals can do to human beings.



*The skin is cauterised by the effect of chloric acid; the vinyl group polymerises and inflicts deep damage on the skin; and arsenic is absorbed to cause long-term poisoning that lasts a lifetime, with the wounds re-opening time after time.*



3

Drawing on the company's extensive know-how, TEG engineers were tasked to design the tightest stuffing box system currently available on the German market. They came up with a unique cone-ring arrangement with a 'spring function' of expanded graphite that creates a tightness unequalled by any competitor.

With 100,000 cycles from -40 °C PN 40 up to 220 °C (**acc. to German Clean Air Act VDI 2440**) and cycles requirements according to BASF, this system operates perfectly.



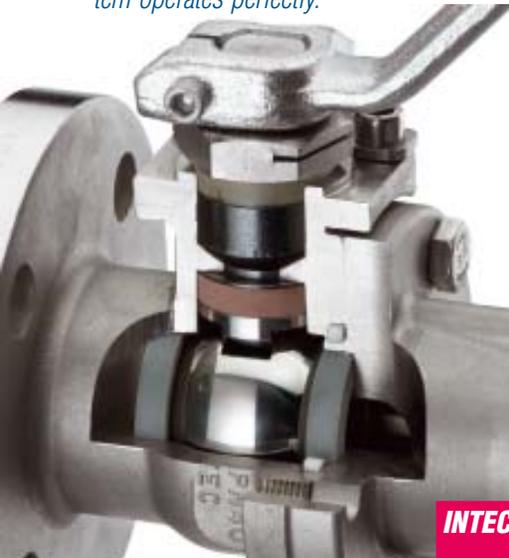
**INTEC K200 -K, DN 15 - DN 100, PN 16/40 with floating ball, soft seated**

Thanks to this quality-design work, KLINGER Germany's customers were confident about placing an order for more than 2,300 manual and pneumatically actuated flanged ball valves. To round off the technology, KLINGER Germany (KID) also won the order for more than 300 compact K200-K ball valves that will replace existing tight metal-to-metal, double-eccentric butterfly valves.

**For further information, please contact:** Division Manager Fluid Control  
Michael Wüllerich -  
Michael.Wuellerich@klinger-gmbh.de



**KID Sales & Logistics Team with the first lot of 5 delivery batches: [L to R] Volker Hupfer, Daniel Gugger, Jörg Müller, Elke List, Pedro Araujo-Gonzales, Verena Enold, Andreas Meudt, Katrin Zoremsky, Thomas Döring, Barbara Nigratschka, Michael Wüllerich**



**INTEC K200 - stuffing box system**



# 111 years KLINGER in Gumpoldskirchen

Family, friends and business partners - guests from all over the world together with the managing directors of all independent KLINGER companies, their wives and all current and former employees of KLINGER's local companies celebrated on 11th November 2004 111 years of KLINGER's presence in Gumpoldskirchen.

*The festivities offered an opportunity to look back at the company's long history which has been shaped decisively by four generations of the KLINGER family. The products and services provided by KLINGER over the years were visualised in a carefully researched series of exhibits and a richly illustrated commemorative brochure in which all major epochs and events were beautifully documented. In the symbolic act of cutting the birthday cake the Chairman of the Group of independent KLINGER companies Dr. Thomas Klinger-Lohr and Eng. Hans Penz, Third President of the Parliament of the State of Lower Austria opened at the same day 2,300 square metres of new office space, new research, development and production facilities for sealing materials and a new production and warehouse facility for large ball valves.*

## The ceremony



**Mr Erich Sauer, Managing Director of KLINGER Fluid Control, Austria, led in a very eloquent way through the programme of the official ceremony.**

*In the following speeches Mr Maximilian Winter, Managing Director of KLINGER Dichtungstechnik GmbH, Aus-*

*tria, emphasized the importance of all environmental aspects in KLINGER's development and production policies.*

**Mr Maximilian Winter, Managing Director of Rich. KLINGER Dichtungstechnik GmbH & CoKG, Austria.**



**Dr Thomas Klinger-Lohr, Chairman of the Group of independent KLINGER companies gave his own very personal account of the KLINGER history right from its beginning to its actual position in the world market and key strategies.**



# A birthday party to remember

*The 4th und 5th generation of the Klinger Family*



*Dr. Richard Göd, Mayor of the Town of Gumpoldskirchen emphasized the excellent relationship between KLINGER and the Town Authorities.*



**Dr. Richard Göd**

*Mr Emil Schabl, Minister of the Parliament of the State of Lower Austria, stressed the importance of not only boosting industry in the State of Lower Austria but also of encouraging people to excellent performance, and thus securing the well-being of the whole community of the State of Lower Austria.*



**Mr Emil Schabl**

*And Eng. Hans Penz, President of the State of Lower Austria put the importance of a financially sound and innovative company into the larger context of the economic well-being of the State of Lower Austria. ■*



**Eng. Hans Penz**





# Trust is good, testing is better

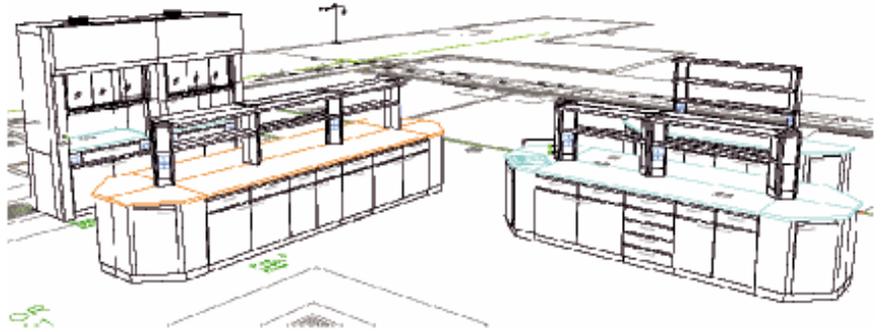
Rich. Klinger Dichtungstechnik GmbH & Co. KG, Austria

The opening of the new building on the 111th anniversary of the Gumpolskirchen plant was also an opportunity for KLINGER Dichtungstechnik to present its new materials-testing laboratory. The new facilities have been specially designed to meet contemporary requirements, and come fully equipped with all the latest fixtures and fittings.

**State-of-the art laboratory to meet the highest demands in quality, research and development.**

*At the inauguration of the new building on 11 November 2004, visitors were given a tour of the new laboratory, which is the result of a long and intensive design and development phase.*

*Key considerations during planning and realisation were the wide range of different test procedures - separate media islands were designed for chemical-analytical and high-temperature testing - and the high priority given to user-friendliness and workplace safety for laboratory staff.*



6

### Tightness:

- Test rig (room temperature)
- Test rig (load, internal pressure, temperature adjustable)
- Direct flange testing after treatment

### Specific tests:

- Chloride content
- Shore hardness
- Flexibility
- Sticking properties
- Tensile testing

### Media resistance:

- Oils, fuels, acids, bases, etc.
- Free immersion
- Immersion in assembled joints
- Steam test rig

*The new image further underlines the role of the laboratory and the R&D department as a centre of expertise at Gumpoldskirchen, which represents a focal point for all matters relating to gaskets. ■*

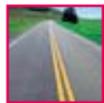


*The main areas of activity for this laboratory are split between the quality inspections that accompany production, and R&D-related activities. The wide spectrum of individual testing options includes:*

### Deformation:

- KLINGER hot compression
- Compression set
- Stress relaxation
- Creep relaxation
- Compressibility





## The road to success

Apprentice training has been a tradition at KLINGER since 1938. Currently, eleven mechanical engineering technicians are going through a 3.5-year apprenticeship.

Training in the workshop is divided into a practical and a theoretical section, as defined in the company's internal training schedule. One training supervisor and one assistant are in charge of its implementation.

### Theoretical training

One four-hour works training session is carried out each week, using practical examples to reinforce basic principles and supplement trade-school classroom sessions. Key learning aids are provided by a number of interactive learning programmes, which come with individual target controls.

One additional hour per week is devoted to training-related tasks such as:

- Technical drawing
- Practical calculations, and
- Special subjects

### CAD training

AutoCAD Mechanical and Pro-Engineer 3D software (student version) are available for CAD training.

### CNC programming

In addition to standardised DIN 66025 programming methods, NC programs are also created using Keller Q-plus Milling and

Q-plus Turning programming software. This software allows the user either to create the workpiece geometry in a graphic dialogue on the PC, or import it from a CAD drawing. Each NC program is created by compiling a work schedule on the basis of a technology database and predefined tools.

The machining steps are simulated on the PC, and the virtually machined workpiece can then be displayed for inspection in 3-D.

The program is converted into the required machine language using post-processors for the Deckel FP4MA milling machine and TRAUB TND 360 lathe. This program is then transferred online to the machine, and used to machine the workpiece.

### Pneumatics training

FESTO FluidSIM3.5 didactic training software is provided for pneumatics training, as well as a dedicated workstation with practice panel.

### Practical training:

The first year of the apprenticeship commences with the 'Multispan - Machine Vice' project. From the outset, apprentices are expected to work independently, with value being placed on sourcing technical information in textbooks.

The actual working steps follow group discussion, under supervision by the in-



structor, of the key issues for the qualification modules. Implementation is self-assessed in the initial stage, and is then awarded marks by the instructor.

In the second half of the first apprenticeship year, simple components are produced for the manufacture of fluid control devices.

As training progresses, jig components and tools (incorporating heat treatment) are among the items produced, along with sectional models of fluid control devices, spare parts for maintenance, fluid control device prototypes, and individual components for standard fluid control devices, etc.

Here, it is important to define clear objectives, and apprentices are required to work out the separate process steps for themselves.

From the third apprenticeship year onwards, apprentices are assigned to the individual production-related technical departments for set periods.

In the fourth year, apprentices are normally assigned to production, unless time is allocated for trade-school classroom sessions and revision for the final qualifying examination.

General teamwork, order in the workplace, and a quality- und customer-oriented mindset are an integral part of apprenticeship training.

## Klinger Fluid Control GmbH, Gumpoldskirchen

- 1 DECKEL engraving machine
- 2 Batch furnaces (annealing/hardening/tempering)
- 1 Tempering furnace
- 1 FRONIUS WIG and electric manual welding unit
- 1 Gas welding torch
- 3 Drill presses
- 1 Pneumatics practice workstation

The aim of apprentice training at KLINGER is to secure highly qualified, skilled workers for the company. As a result, we now employ approximately 65 % of the skilled workers trained over the last 14 years. And thanks to further education (evening classes, foremen's courses, etc.), there is a long line of KLINGER managers who began their careers in the apprenticeship workshop.

Once a year, the KLINGER Fluid Control apprentice workshop is made available to the Chamber of Commerce for the final apprenticeship exams.

Thanks to the company's policy of providing varied and intensive training to young people, KLINGER makes a significant contribution to Austrian industry. ■

**For further information, please contact:** Siegfried Pfeiffer, Training Manager

The following machines and equipment are available on an area of 200 m<sup>2</sup>:

- 1 CNC DECKEL FP4MA milling machine
- 1 CNC TRAUB TND360 lathe
- 1 DECKEL knee-type milling machine
- 1 FERRARI knee-type milling machine
- 1 PRVOMAJSKA knee-type milling machine
- 1 ABA face grinding machine
- 1 KELLENBERGER circular grinding machine
- 1 TUM centre lathe
- 1 HANSEAT centre lathe



## Commitment Excellence

**It's official! After winning the Fit for the Future 2004 award, KLINGER Fluid Control training workshop can take its place as one of Austria's best training centres.**

When it comes to a steady rise in quality, employee qualifications are important. And the demands placed on our technicians are always rising, too. Furthermore, technology has undergone a rapid change in recent years. Accordingly, under the supervision of Mr Siegfried Pfeiffer, the training programme in KLINGER's internal apprenticeship workshop attaches great importance to state-of-the-art technology and IT.

KLINGER's exceptional training activities have now been recognised in a competition organised jointly by the Department of Trade and Industry and the Austrian Chamber of Commerce. This is fitting confirmation of the high technical ability and theoretical know-how possessed by KLINGER apprentices.

We are extremely proud that, during the past year, many of our apprentices have achieved outstanding results during their theoretical training at the College of Mechanical Engineering. Of special note here is the fact that the innovative training programme run by KLINGER Fluid Control GmbH offers the best possible start to a career. The next generation of highly qualified professionals is thus assured.

This success, and the continuous readiness of young professionals to take on additional work both internally and externally, is further confirmation of the path taken by apprenticeship training at Gumpoldskirchen, and promises that many committed young people will be working at KLINGER Fluid Control in the future. ■





## The benefits of a top venue

Rich. Klinger Ind e Com Ltda, Brazil

For the first time, Richard KLINGER, Brazil, has taken part in the ISA Show South America - the South American Automation, Systems and Instrumentations Fair. Staged on 23, 24 and 25 November, this is the sector's No. 1 trade-show and attracted the main control valves manufacturer from Brazil, the rest of Latin America, the United States and Europe.

For a market that is estimated to grow by 18 % and generate sales of R\$ 2.4 billion in the coming year, the ISA Show South America 2004 could not have been better. With more than 15,000 visitors from the steel, chemical, paper and cellulose, oil and gas, petrochemical and pharmaceutical industries, exhibitors were rewarded with a wealth of contacts. As a result, business prospects for the coming months are looking good. During the three days of the show, industry representatives were able to learn about state-of-the-art technologies, and were thus spurred on with their modernisation plans. All participants agree that the ISA Show

South America 2004 attracted a highly qualified public.

The congress organised to run parallel with the show was attended by a total of some 1,250 specialist participants - professionals, technicians and academics - from the automation industry in countries such as Brazil, Argentina, Chile, Russia, the United States and China. Richard Klinger was pleased to welcome representatives to its stand from a number of customers, including BASF, Clariant, Petrobras, Unilever, Elekeiroz, Vicunha, Ripasa, Yokogawa and Voith. The company also took the opportunity to step up mar-



10

keting and promotional work for its range of actuated control and stop valves. Major selling points are easy maintenance and the Class-VI seal. Another important factor acknowledged by customers was the ease of automating a system based on the manually operated valves initially purchased by the simple substitution of their bonnets and lanterns. ■



## Customer focus is the way forward

Rich. Klinger S.A.A.C.yF./Tecnoflow S.A., Argentina

Your success is our success.

To make that happen, KLINGER Argentina took part in the International Machine Tools Exhibition from 14 - 19 September 2004 at the La Rural exhibition centre in Buenos Aires. The show was an opportunity for KLINGER Argentina to present their products and services to the entire industry, and they were joined by TECNOFLOW Argentina, a company with the synergies to complement these products and solutions. The sealing products featured in Buenos Aires included industrial gaskets of all kinds but also a whole range of fluid control products. TECNOFLOW Argentina products included control valves, air valves and fittings, as well as services like engineering and network

calculations - in other words, the know-how that enables KLINGER to achieve their ultimate aim: namely, to help their customers.

As well as appearing at the show, KLINGER were able to present the ISO 9001-2000 certifications awarded to the two companies during the year - a convincing demonstration to the industry of their commitment to quality not only when it comes to products but also processes.

In line with KLINGER Argentina's business philosophy, they have also added a new service truck to their equipment as yet another way to improve the care and support that they deliver to their customers.

The provision of the best possible response to the needs of their customers

is a difficult task. But for them at KLINGER Argentina and TECNOFLOW Argentina, it is a challenge they are always ready to take up. ■



# Connect with Quality



# The Global Partner for Global Players

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