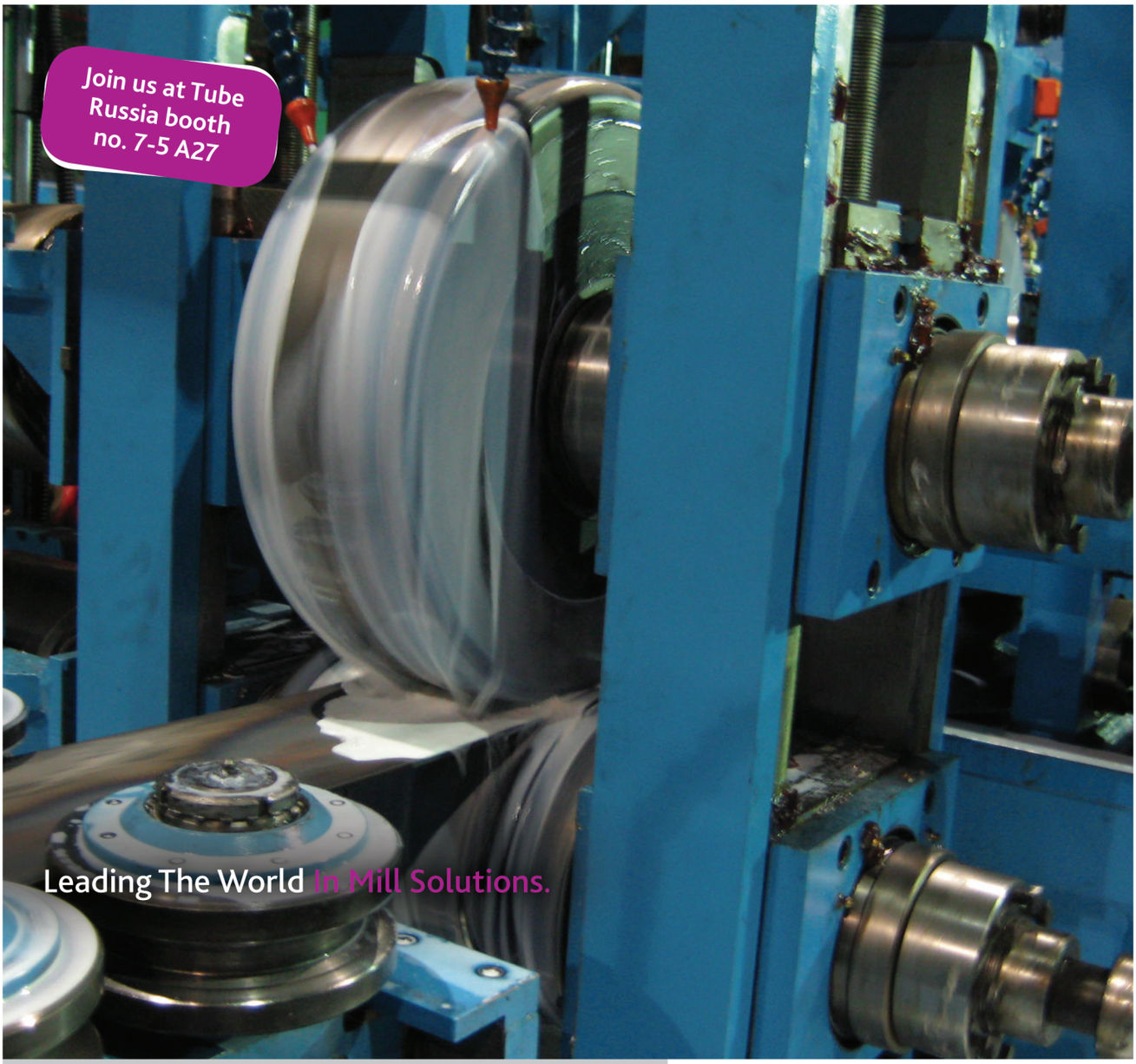
The international magazine for the tube and pipe industries

TUBE & PIPE TECHNOLOGY

May 2011 | Vol 24 No 3 | US$33



The tube & pipe mill installation history of Fives Bronx – formerly known as Abbey International – in the OTC global marketplace is unmatched. With the Abbey Technology and it's long history of small to large mill installations in almost every corner of the globe, Fives Bronx boasts the largest O.D. range in the industry – up to 914MM (36") O.D. Fives Bronx engineers have developed mill innovations like our patented Quick Change technology for changeovers in as little as 15 minutes. The system can be retrofitted and reduces downtime, improving overall production efficiency while reducing costs. In addition to Tube & Pipe Mills, Fives Bronx manufactures Entry Systems, Rotary Cutoffs, Draw Benches and Slitting lines.

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Editorial Index

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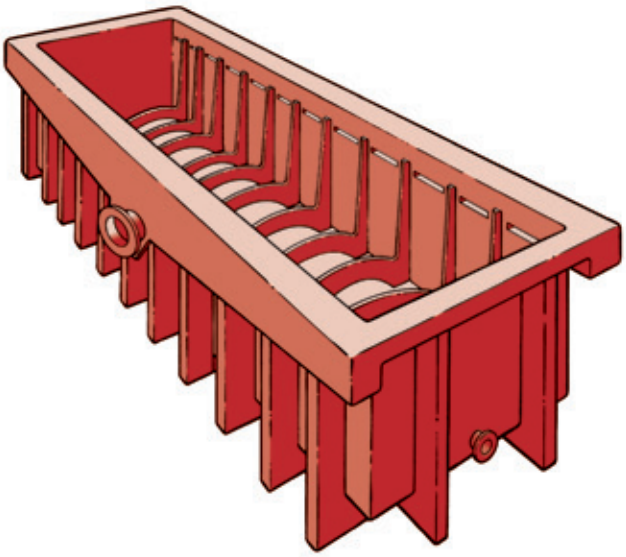

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The May Issue

Welcome to the latest issue of Tube & Pipe Technology magazine, which includes features on OCTG & Pipeline manufacturing and Tube Mills & Roll Forming Machinery – two particularly important and interesting areas of the industry.

Naturally, our best wishes go to the people of Japan, particularly those working in the many tube-related industries located close to the areas that have been worst hit by the horrific earthquakes.

Clearly it will take many years of repairs to help rebuild the infrastructure and industry in the country and to come to terms with the consequences of the radiation leaks and the many lost lives. I am sure that if any country can cope and rebuild after a disaster like this then it is Japan – in fact I hear that after a short break many orders are already being completed.

Next issue we have features on coating, pickling & galvanizing and cutting, sawing & saw blades so please do get in touch with your latest product information.

Rory McBride – Editor

Editor • **Rory McBride**

Features editor (USA) • **Dorothy Fabian**

Editorial assistant • **Christian Bradley**

Production • **Lisa Benjamin**

Sales & marketing
- **Catherine Sayers** catherine@intras.co.uk *English speaking sales*
- **Giuliana Benedetto** giuliana@intras.co.uk *Italian sales*
- **Hendrike Morriss** hendrike@intras.co.uk *German speaking sales*
- **Doug Zirkle** doug@intras.co.uk *US & Canada sales*
- **Linda Li** linda@intras.co.uk *Chinese sales*
- **Jeroo Vandrevala** jeroo@intras.co.uk *Indian sales*

Advertising co-ordinators • **Liz Hughes** • **Andrea McIntosh**

Subscriptions • **Liz Hughes**

Accounts manager • **Richard Babbedge**

Publisher • **Caroline Sullens**

Founder • **John C Hogg**

Published by: **Intras Publications**,
46 Holly Walk, Leamington Spa, CV32 4HY, UK
Tel: +44 1926 334137 • **Fax**: +44 1926 314755
Email: tpt@intras.co.uk
Website: www.read-tpt.com

Indian Office: Intras Ltd,
Subarna (Ground Floor) P21/N, Block A
New Alipore, Kolkata 700 053, India
Tel: +91 33 2407 0701 • **Fax**: +91 33 2407 0700

ISSN 0953-2366

US Copies only: *Tube & Pipe Technology* (ISSN No: 0953-2366) is published bi-monthly by INTRAS Ltd and distributed in the US by DSW, 75 Aberdeen Road, Emigsville, PA 17318-0437. Periodicals postage paid at Emigsville, PA. POSTMASTER: send address changes to *Tube & Pipe Technology*, PO Box 437, Emigsville PA 17318-0437.

CONTENTS

VOL 24 NO 3 MAY/JUNE 2011

Tube Mills & Roll Forming Machines

The roll forming process in a state-of-the-art tube mill not only incorporates the best of what stamping, extrusion and press brake bending deliver: it also accommodates so-called secondary operations so smoothly as to obscure the distinction. Welding. Hole punching. Embossing. Trimming to length. The roll former folds them all in. It does so while producing high-toleranced parts in long lengths and high volumes; continuously; without missing a beat.

OCTG & Pipeline Manufacturing

Oil Country Tubular Goods may be the broadest category in the tube and pipe industry, covering as it does a span from sensitive instrumentation tubing to petroleum pipeline but physical size is only one factor among many across this spectrum. A section of pipeline in which a man can stand upright, with his raised arms touching only air, is a marvel. The companies reviewed here are aware that, from this behemoth of the desert down to the narrowest drill string, the integrity of that piece of OCTG is wholly dependent on the quality of its manufacture.

RingSaw machine makes impressive debut

GERMAN machine tool enterprises Reika and Gräbener Maschinentechnik of Gräbener Group have been attracting positive attention recently after unveiling their RingSaw® premiere to the machine tool world – a revolutionary design for cutting of tubes, profiles and bars – and with the latter recording a big order with delivery of seven machines to a new pipe mill in Saudi Arabia.

Reika's RingSaw® Avantgarde has the potential to become tomorrow's classic, the company said. Detailed test runs together with leading manufacturers of roller bearings have confirmed and even exceeded expectations. It also offers remarkable savings thanks to the new technology of the saw head that orbits the stationary workpiece: cost savings of 50 to 80 per cent, compared to conventional carbide saws at 30 to 60 per cent faster capacity have been experienced leading to the initial investment quickly being paid back.

Meanwhile, new test runs with bars, smaller (40mm diameter) and bigger (600mm diameter) tubes, reported impressive results. The team at Reika stated that it is proud of the machine, which has been performing almost every day since its launch but the company, based in Hagen, Germany, is still anxious to keep the tool technology up to date. High-tech tools are constantly being developed to optimise the already outstanding results.

Continuous development is also the keyword at Gräbener Maschinentechnik. Among hydroforming and hot-stamping-presses and plate edge milling machine sfor the manufacture of ship deck sections, there is a particular attention to machine tools for the manufacture of longitudinal welded pipes. Milling machines, pipe forming presses, 3- and 4-roll bending machines, post-bending presses, continuous root tacking machines, end facing machines and so on. All machines will be updated to the latest technological standards with special care to ensure the usual Gräbener reliability.

The most recent example is Gräbener's pipe forming press delivered to a pipe mill in Malaysia, being among the fastest in the world. Gräbener engineers reduced the real pipe bending time to three minutes which was an outstanding achievement.

Reika GmbH & Co KG – Germany
Fax: +49 2331 969036
Email: info@reika.de
Website: www.reika.de

The Reika Ringsaw in operation

Underwater tube robots scoop award

WATER quality engineering firm Panton McLeod has celebrated another boost to its UK water industry credentials after winning a specialist innovation award. The firm has been announced as the winner of the Pipeline Industries Guild's innovation award, after impressing the judges with its innovative underwater cleaning robots.

The robotic technology, which is used to clean and inspect water storage facilities and tanks, as well as inspecting pipelines and boreholes across the UK, was highlighted as one of the star attractions at the Pipeline Industries Guild's innovation day – a major showcase of state-of-the-art technology from across the water industry.

A team from Panton McLeod promoted the robots as part of the event and, after giving an impromptu presentation about the benefits of the machines, were unanimously announced as winner of the coveted innovation award.

Paul Henderson, operations director of Panton McLeod, said: "We're absolutely delighted to have won this award. There was some very strong competition at the event from a number of established names in the water sector, so it was a great testament to our services to emerge as the winner.

"The robotic work is a major part of our work in the water sector and the results we have achieved with them speak volumes about our expertise. It wasn't difficult to show how impressive they are and how important the service they offer for the water industry. We demonstrated how our ROV robot is able to inspect and clean live potable water pipelines, using video footage we have collated from some of our most high profile work in the water industry to date."

Panton McLeod uses two robots in its specialist cleaning and inspection work across the UK, and has deployed them during high profile projects for some of the country's biggest water firms.

The larger of the two machines – the VR600 – is a special tracked robot that is manoeuvred along the floor of any water storage structure and removes any sediment build up. It can also be used to inspect the condition of water tanks and structures.

Panton McLeod – UK
Fax: +44 1835 822 919
Email: info@pantonmcleod.co.uk
Website: www.pantonmcleod.co.uk

FivesBronx completes China deal

FIVESBRONX's six roll series machine is very versatile and will process the full range of API grades pipe as well as the speciality alloy tube market. The six roll straighteners can be found in all the leading seamless and ERW pipe mills worldwide. This can only be done with a knowledgeable and fully committed staff of engineers, designers and project managers. Its staff are continually searching for that next innovation that will make the FivesBronx straighteners better than before.

FivesBronx has recently completed a deal for a Series 6CR11 hot straightener to China's Wuxi Valin. The new 258mm hot rolling seamless mill will produce the tubes 60-244.5mm OD with 30mm wall and 15m long tubes. The steel grades are for casing, casing coupling, tubing coupling, drill tube, line pipe, high pressure boiler tube, low and medium pressure boiler tube, gas cylinder tube, seamless hot-rolled steel tubes for hydraulic pillar service, structure tube, tubes for liquid service and other high alloy tubes. The annual production will be 500,000 tons. The machine will process plain and upset API pipe with temperatures ranging from ambient to 750˚C.

The new installation is coupled with the patented FivesBronx Computer Aided Setting System (COMPASS), utilising the latest in industrial electrical and electronic technology to provide the customer with consistently high quality product and throughput capacity. With the COMPASS system, machine setup times for a size change are reduced to less than three minutes, while its data collection and storage is vital to the producer when processing such sensitive and critical components.

Other design features include incorporating all of the upset movements into the top passes of the machine, eliminating the need for maintenance access to hydraulic cylinders in the base of the machine, an area typically flooded with scale and water.

FivesBronx – USA
Website: www.fivesgroup.com

Diary of Tube Events

2011

MAY

23-26	**Tube Russia 2011** *Moscow, Russia* **Exhibition**	→	**Email**: ryfischd@messe-duesseldorf.de **Website**: www.metallurgy-tube-russia.com

JUNE

13-15	**Yokohama Pipe & Tube 2011** *Japan* **Joint Symposium ITA/JSTP**	→	**Email**: info@itatube.org **Website**: www.itatube.org

SEPTEMBER

13-15	**Tube Southeast Asia** *Bangkok, Thailand* **Exhibition**	→	**Website**: www.tube-southeastasia.com
19-24	**EMO** *Hanover, Germany* **Exhibition**	→	**Website**: www.emo-hannover.de

OCTOBER

4-6	**Tubotech** *São Paulo, Brazil* **Exhibition**	→	**Email**: cipa@cipanet.com.br **Website**: www.cipanet.com.br

NOVEMBER

7-9	**Pipe & Tube World Conference** *Düsseldorf, Germany* **Conference**	→	**Email**: info@itatube.org **Website**: www.itatube.org
14-17	**Fabtech** *Chicago, USA* **Exhibition**	→	**Email**: information@fmafabtech.com **Website**: www.fabtechexpo.com
15-18	**TOLExpo** *Paris, France* **Exhibition**	→	**Website**: www.tolexpo.com

2012

FEBRUARY

28 Feb – 3 March	**METAV 2012** *Düsseldorf, Germany* **Exhibition**	→	**Email**: metav@vdw.de **Website**: www.metav.com

MARCH

26-30	**Tube / wire Düsseldorf 2012** *Düsseldorf, Germany* **Exhibition**	→	**Email**: infoservice@messe-duesseldorf.de **Website**: www.tube.de www.messe-duesseldorf.de

OCTOBER

30 Oct – 1 Nov	**Tube India** *Mumbai, India* **Exhibition**	→	**Email**: dughl@md-india.com **Website**: www.tube.india.com

Bossi–Macchine secures finishing order

BOSSI–Macchine Finitura Metalli has secured an important order from the company Nimet Srl Romania for surface finishing of tubes and bars, before and after chromium plating of hydraulic cylinders with diameters up to 200mm.

The supply consists of two lines, model F1, complete with automatic loader/unloader and inlet/outlet roller conveyors for working a maximum length of six metres.

These two lines, together with the one already supplied, complete the working cycle, assuring the increasing demand and the required quality, which make Nimet one of the leading companies in this field.

"Nimet Srl Romania specialises in the production of precision bars, hard chrome plated bars and tubes, nickel and chrome plated bars or tubes, hydraulic cylinders. The activity and development is concentrated on creating high quality products in order to follow the customer needs and to be a reliable partner," said Nimet president Samy Numan.

Bossi – Macchine Finitura Metalli operates all over the world, with a leading position in the manufacture of machines for metal surface finishing, having more than 40 years of experience in this field. The wide production range includes machines that can solve any problem of grinding, satin-finishing, polishing or de-burring of any kind of ferrous and non-ferrous materials.

Bossi Srl – Macchine Finitura Metalli – Italy
Fax: +39 02 9466265
Email: info@bossi-srl.com
Website: www.bossi-srl.com

The supply included two lines of model F1

Industry support grows for ITA conference

PLANS are well advanced for the ITA's next major technical conference in Europe later this year. The conference will focus mainly, but not exclusively, on four main topics: OCTG, large diameter line pipes, pressure tubes and precision tubes, embracing both welded and seamless technologies. In addition there will be essential market overviews of each of the main topics as well as a stimulating keynote speech.

The 7-8 November 2011 will be devoted to conference sessions with a late afternoon optional visit to the SMS Meer plant on 8 November. Other features of the event that offer excellent networking opportunities are table top exhibits on both conference days and a drinks reception immediately after the end of the first day.

SMS Meer has agreed to be the main sponsor and a number of other organisations will be sponsoring elements of the event, including Messe Düsseldorf, Reika GmbH, Gräebener GmbH and IMS Messsysteme GmbH. Following discussions between officials of the European Steel Tube Association (ESTA), the German Steel Tube Association (Wirtschaftsvereinigung Stahlrohre eV), the European Metallurgical Equipment Association (EUnited Metallurgy) and ITA President Dr Gunther Voswinckel the ITA is pleased to announce that these three trade organisations have agreed to support the conference. Also supporting the conference is the Europaischer Blech Verband (EFB).

The International Tube Association – UK
Website:
www.itatube.org/dussconference.php

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Dr. Siegmar Lampe, Head of R&D Department,
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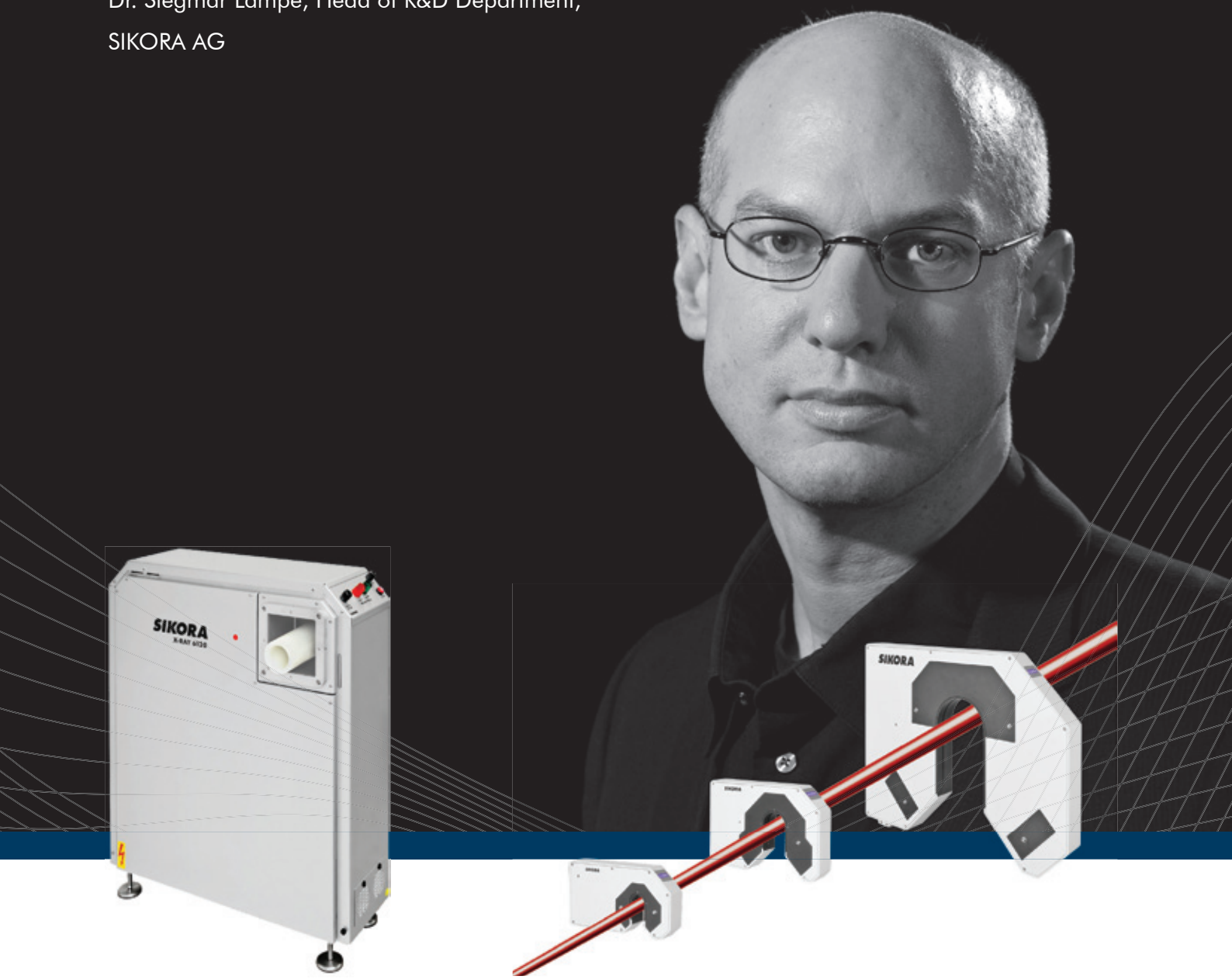

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Baoji Petroleum chooses Thermatool

BAOJI Petroleum Steel Pipe, a division of China National Petroleum Corporation (CNPC), an API producer located in the Shaanxi Provence of China, is currently installing the world's largest Thermatool HAZControl Technology™ (HCT) high frequency welder. Thermatool has developed new technology specifically for this HF Welder, building an 800kW welder with stabilised frequency adjustment in 1kHz increments between 275 and 375kHz.

This welder is the first in its class on multiple fronts. It is the world's first true variable frequency welder with output of 800kW, providing precision HF welding control to the API market. It operates at the highest frequency (up to 375kHz) for a solid state HF welder at 800kW. Thermatool has found that higher frequencies are necessary for welding some of the most demanding materials like P110, N80, and stainless and duplex steels. It is the first high-powered welder to be controlled with Thermatool's patented HAZControl Technology™.

More and more customers are selecting HCT as their welder of choice. The new welder is the first to be capable of achieving full power output over the frequency range (275–375kHz) in either induction or contact welding mode.

Dual welders add flexibility for producers who need to minimise kilowatt hours/ton cost in their HF welding equipment. It is the first high-powered HCT welder fitted with Thermatool's new contact welding system using the QuadContact™ design. Four contact tips reduce marking on pipe during HF welding and increase the life of the contacts, once again adding differentiation to Baoji's product offering.

Control of the Heat Affected Zone (HAZ) is essential for ensuring repeatability of HF welder performance. As new high performance steel alloys are introduced into the OCTG pipe and tube (API) market, the process windows for achieving the best weld are tightened. HAZControl Technology™ provides a means by which these new materials can be welded with consistency.

The tube producer benefits with stronger materials and stronger welds, produced with less scrap. This new welder allows Baoji to produce product up to 219.1mm OD with 13.72mm wall while maintaining tight control over the HAZ.

With its 800kW Thermatool VF Welder, Baoji is breaking new ground and helping bring oil and gas tubular product to a new, higher standard.

Hypertherm designs and manufactures the world's most advanced plasma cutting systems for use in a variety of industries such as shipbuilding, manufacturing and automotive repair.

Its product line includes handheld and mechanised plasma cutters and consumables, as well as CNC motion and height controls. Hypertherm systems are trusted for fast, precision metal cutting and reliability that results in increased productivity and profitability for tens of thousands of businesses.

Hypertherm – USA
Website: www.hypertherm.com

First UT rotary system successfully installed

RESPONDING to the need for more test channels to detect smaller and smaller defects without sacrificing speed, Magnetic Analysis Corp engineers developed a new multiplexed ultrasonic transducer design for the way transducers send and receive signals. MAC's new multiplex 180mm Echomac® ultrasonic rotary system was recently installed in a Russian plant that produces oil country tubular goods.

The unit is part of a test station that inspects welded ERW line pipe and casing tube up to 168mm diameter and 7.5mm wall thickness for lamination, wall thickness, and transverse/longitudinal defects. Using the new, fully multiplexed 32 transducer elements that feed 20 channels, results were excellent even when testing to 5% threshold, meeting API standards.

The new multiplexed ultrasonic transducer design

MAC's ultrasonic unit is mounted on a triple drive roll bench installed as part of the customer's in-line test system. MAC's bench provides constant centring, which reduces vibrations and allows for leading and trailing upset ends to be accommodated. The entire plant's production passes the test station, which has integrated the MAC ultrasonic system with an existing magnetic flux leakage test unit. MAC's bench was synchronised with the customer's conveyor test speed, height, and logic controls. A new multi-collector computer receives data from all testing stations and presents a single traceable report for each tube. The multiplex feature will also be extended to other ultrasonic rotaries in MAC's product line. MAC also offers flux leakage and eddy current systems for testing tube, bar, wire and parts.

Magnetic Analysis Corp – USA
Email: info@mac-ndt.com
Website: www.mac-ndt.com

SG/711 Carbon & Stainless Steel ERW Pipe Line

SG/40 Precise Titanium & Stainless Steel Welded Pipe Line

SG/25 Precise Titanium Welded Pipe

SG/40 Precise Titanium Welded Pipe Finishing Line

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shear & welding m/c
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Hydraulic tester
Automation
Wall Thickness 50mm End Facing & Beveling MC
58 Patents

ERW711 Carbon & Stainless

Steel pipe line' the world's largest

T&H Lemont completes commissioning of welded carbon pipe mill in Brazil

T&H LEMONT has commissioned a complete Model WU40-11 high frequency welded structural mill at Acos Groth in Brazil. The tube size range of the WU40 mill is from 63.5mm to 168.3mm OD round tube at yields up to 550MPa. The mill is designed and tooled to make hollow structural shapes from 50.8mm x 50.8mm to 127mm x 127mm and related rectangular shapes at yields up to 350MPa. The mill will produce material at speeds up to 80mpm.

The design of the mill includes four individually powered sizing/shaping stands to ensure efficient production of both round and shaped products. Shaping is accomplished by pre-forming in the sizing/shaping stands and completing the forming process in two 8-roll turkshead units.

A T&H Lemont seam orientation stand is included in the mill to ensure that the weld seam is maintained at top dead centre for round pipe and shapes. However, if the specification calls for the weld seam to be moved from top, dead centre this unit will give Acos Groth the flexibility to move the weld seam. This option opens markets to Acos Groth for customers who require the weld seam to be moved for fabrication or bending.

Acos Groth is one of only six companies in Brazil that can produce tubes up to 168mm in diameter with wall thickness to 6.35mm. It is a major producer of carbon steel tube products in Brazil and is the parent company of Brazil's Tubos Naçional.

In addition to complete production systems, T&H Lemont provides a variety of components and services to the tube and pipe industries. Services include tube and pipe roll design, mill alignment and operational consulting. Components offered by T&H Lemont include welders, cut-offs, entry equipment, accumulators, seam orientation stands, weld boxes, edge conditioner, bead scarfing systems, straightening systems, single point adjustment systems, dedimplers, rolls, blades, jaws and shafts.

T&H Lemont is one of forty companies making up the Inductotherm Group. As a multi-technology, global organisation, Inductotherm Group serves the thermal processing industry by manufacturing and marketing a diverse range of products and services, some of which include Inductotherm induction melting systems, Inductoheat and Radyne induction heating equipment, Thermatool pipe and tube welding equipment, Bricmont furnaces for steel and Consarc vacuum melting.

T&H Lemont – USA
Email: sales@thlemont.com
Website: www.thlemont.com

The T&H Lemont Model WU40-11

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US pipe demand to reach $38.6bn in 2015

US demand for pipe is forecast to advance 6.6 per cent per year to $38.6bn in 2015. Gains will represent a substantial turnaround from the declines of the 2005-2010 period, during which pipe demand was hampered by an economic recession and a sharp drop in building construction spending.

Going forward, however, strong increases in pipe demand will be fuelled by a number of factors, including a rebound in construction activity, an improved outlook for state and municipal infrastructure spending, an expansion of oil and gas exploration and transmission activity, and the continued need to replace and repair the country's aging water pipe networks. These and other trends are presented in US Plastic & Competitive Pipe, a new study from The Freedonia Group Inc, a Cleveland-based industry market research firm.

Plastic pipe will be the fastest-growing pipe material through 2015, continuing to steadily take share from competing materials in a range of markets. Rising demand for plastic pipe will be driven by resin improvements that enhance pipe performance in more demanding environments, while processing improvements will allow plastic pipe to be more cost-effective compared to other materials.

Polyvinyl chloride (PVC) will remain the leading resin used in plastic pipe through 2015, due to its dominant position in small-diameter applications such as potable water distribution, sanitary sewer and agricultural markets. High density polyethylene (HDPE) pipe, however, has the best long-term growth prospects among major plastic pipe resins it seems.

HDPE will continue to gain plenty of ground on concrete, steel, PVC and other similar competing pipe materials, particularly in drainage, storm sewer and the water distribution markets.

Steel pipe will remain the leading pipe material in the US through 2015, accounting for 44 per cent of the market in value terms (though only six per cent by linear footage). Steel pipe will continue to be the dominant product used in the large oil and natural gas market, while retaining strong positions in applications such as storm sewer and industrial processing pipe.

However, steel pipe demand will rise at a pace well below the overall average, restrained by a high degree of market maturity and competition from plastic pipe.

Faster growth is forecast for concrete and ductile iron pipe. Copper pipe will also see above-average gains in demand, benefiting from a rebound in building construction and refrigeration equipment production. Plastic & Competitive Pipe, (317 pages) is available from Freedonia.

The Freedonia Group Inc – USA
Fax: +1 440 646 0484
Email: pr@freedoniagroup.com
Website: www.freedoniagroup.com

Breakthrough for energy efficiency pipe technologies in China

THE Logstor Group has signed a five-year agreement valued at more than 3bn Danish krone with the city of Harbin in the north-eastern part of China.

Logstor is to increase energy efficiency in Harbin by replacing and expanding its existing district heating networks. More than 2,000km of pre-insulated pipes are expected to be installed over a five-year period, and Logstor will build a new state-of-the-art manufacturing facility in Harbin employing more than 200 people. The first installations are expected to be carried out during 2011. To meet this requirement, Logstor's facilities in Harbin are scheduled to become operational in the first half of 2011. Logstor's new mobile spray technology will enable quick production set-up.

With 10 million inhabitants, Harbin is the tenth largest city in China and the capital of the Heilongjiang Province in the north-east. Located in one of the fastest growing regions in the world, Harbin serves as a key political, economic and scientific hub in the region. The city works actively to position itself as a leader within environmentally friendly heating and to improve its energy efficiency, where heating and cooling of residential and commercial buildings constitute a large share of its energy consumption. Therefore, the city's government has decided to replace as well as extend large parts of the district heating distribution network and bring it to the highest possible standard.

The scheme is a result of China's recent five-year plan, under which overall energy efficiency is to be significantly improved. By using Logstor's technologies, energy efficiency in existing transmission systems is expected to increase by at least 30 per cent, while at the same time reducing CO^2 emissions by the same amount. As evident in planning and long-term investments, Chinese authorities at all levels dedicate strong focus and political resolve to counter environmental and energy efficiency issues.

Logstor will help to improve energy efficiency

"This opportunity is very exciting for Logstor as we are expanding our market scope significantly by entering the Chinese district heating and cooling market," commented Logstor CEO Preben Tolstrup. "The potential for Logstor's products and technologies in China is huge. We are capable of delivering technologies that can significantly assist China in reaching its ambitious energy saving targets. The Harbin contract will serve as our district energy starting point in China."

The properties of Logstor's pre-insulated pipe systems provide efficiency gains by minimising the heat loss during distribution through the district heating networks. The company has been present in the Asian region since 2003 with its subsidiary company Logstor Insulation Co (Wuxi) Ltd, located in Wuxi, west of Shanghai, manufacturing pre-insulated pipe systems for marine applications. During 2009 and 2010 Logstor intensified its efforts to expand and strengthen its foothold in this fast-growing region, including the newly established subsidiary Logstor Green Technology Co Ltd, in the city of Lang Fang, located just east of Beijing.

Logstor – Denmark
Email: logstor@logstor.com
Website: www.logstor.com

Steady sales boost tube and pipe manufacturers

MST Seamless Tube & Pipe, based in South Lyon, Michigan, has increased its workforce to near-record levels after a three-month period of strong sales. The manufacturer of seamless cold-drawn pipe and tube has had a recent hiring surge that brings its total number of hourly and salaried employees up to 250, near where it was before the state's economic downturn.

A decrease in sales volume nearly two years ago necessitated a slight downsizing. As South Lyon's largest non-governmental employer, the downsizing weighed heavily on MST's executive management, who immediately went to work to minimise the impact. "Because of the decreased sales, we have worked diligently over the past year to manage costs, and we've been successful keeping profits in check," said Les Whitver, vice president of operations.

In 2010, MST experienced a 36% increase in tonnage booked and has seen a marked increase in distributor and OEM sales of mechanical tubing. Boiler and pressure tube sales have been steady, with notable increases in pipe sales. MST's recent addition of a UV coating line has positioned the manufacturer to sell pipe into the distribution market.

Current demand for pipe and tube from MST is so strong, lead times for products have been moved from four weeks to seven or longer. The company is still able to maintain a steady 98%+ on-time shipping performance each month.

"The overall economic recovery has helped fuel MST's increased business levels, but I believe a lot of the credit is owed to our dedicated and determined sales group," said Ted Fairley, vice president of sales and marketing. "They stay on top of every opportunity and provide stellar service. Their efforts are backed by the best operational group in the industry, and together they ensure our quality products are delivered on time and every customer is completely satisfied."

MST – USA
Fax: +1 248 437 2779
Email: info@mstube.com
Website: www.mstube.com

Arc Machines relocation reinforces commitment to UK market

AS an expert in automated orbital welding technology, Arc Machines Inc (AMI) recently confirmed its intention to consolidate all UK sales activity, including customer support, operator training, equipment maintenance and repair and spares supply, in a single, purpose built facility in the centre of the country.

Located in Daventry, Northamptonshire, the new 7,000ft² building will be the only one of its kind in the UK to accommodate the full AMI product range along with a state-of-the-art demonstration area, full maintenance and service support, a comprehensive spare parts inventory plus a dedicated operator training facility to meet both current and future market needs.

In addition to providing a faster service to clients across the UK and Ireland, the relocation and centralisation of its UK operations reinforces AMI's position as the market leader in automated orbital welding and sets the foundations for further growth and expansion, including the introduction of a wave of new products the company will be announcing over the coming months.

AMI has been setting the standards for automated orbital welding technology since it was first established in 1976. The company now has the largest product range on the market and a reputation for the highest manufacturing standards, technical strength, customer service and quality of materials that has made it the first choice in industries ranging from oil and gas, petrochemicals and power generation to food and beverage, pharmaceuticals, and semi-conductors.

In nuclear and aerospace applications, where weld integrity and the ability to adapt to exotic materials are critical, the accuracy and consistently high quality welds achieved by the AMI weld heads, power sources and control systems provide the quality and reliability essential to these industries.

At the new premises, AMI will be able to demonstrate the full range of its products, from the industry standard, Model 15 large diameter pipe weld head to the compact Model 81 small diameter weld head which can weld as small as 0.5" diameter pipe with minimal clearance for restricted access and can be mounted or dismounted in just 30 seconds.

Alongside these will be shown an extensive portfolio of weld heads, including pipe, fusion, tube sheet, internal diameter and ID spiral cladding weld heads. Also on display will be Models 205, 207, 227, 307 and 415 power supplies which have the capability of storing weld schedules in a microprocessor based control system, with the option of real-time data acquisition, in order to maintain weld integrity with precise tolerances over hundreds of repetitive welds or when an identical weld is required at a later date.

AMI regional director, Michael Allman, sees the move as an essential step in the development of the company. "Arc Machines has been at the forefront for a long time," he commented, "but orbital welding is still a growth industry and we are determined to maintain that position. Although we have a solid reputation for technical expertise, reliability and customer support we do not plan to sit on our laurels and are committed to improving our products and service."

The new facility at Daventry gives AMI the room to demonstrate its determination to provide a better service to both existing and new clients, as well as the opportunity to expand into new markets.

Arc Machines – UK
Email: mike.allman@arcmachines.co.uk
Website: www.arcmachines.com

Modernisation at Volzhsky Trubny Zavod Production output doubled

THE Russian steelworks, Volzhsky Trubny Zavod (VTZ), has significantly strengthened its competitiveness thanks to a major modernisation by SMS Meer, SMS Siemag and SMS Innse. The production capacity of the works is now 630,000 tons of tubes per year, and hence twice the capacity prior to the modernisation.

While SMS Siemag was replacing the four-strand continuous round caster in the steelworks, SMS Meer and SMS Innse took care of the modification of the 16¾"-Multistand Pipe Mill (MPM). These measures resulted in shorter cycle times of the rolling line and the use of higher billet weights, and hence to a significant improvement in productivity.

The piercing process was changed over to a process with round instead of square billets. A crucial advantage of this is the saving of a whole forming step and minimum eccentricities in the finished product. Furthermore, modern transport facilities ensure that the rolled stock passes rapidly through the mill. Tool wear is reduced, less problems occur during rolling – and all this has a positive impact on the productivity.

With the new MPM process it is now possible to insert the mandrel bar in-line. This results in a shorter contact time between shell and mandrel bar, and hence in a smaller temperature loss in the rolled stock.

SMS Meer has also modernised the automation and measurement technology. Among other things the team replaced the operator panels in the control rooms and upgraded the sensors. A new measuring system records the diameter, wall thickness, length and temperature of the hot finished tube. The wall thickness is measured online using the LASUS® (Laser-Ultrasonic) measuring system developed by SMS Meer. Integrated into a quality assurance system (QAS), this enables the product quality to be monitored and the mill settings to be adapted. With the measures undertaken, OAO Volzhsky Pipe Plant has been able to strengthen its leading position among the tube manufacturers in Russia.

The company now has the world's most modern MPM plant in this size range on the international market.

SMS Siemag – Germany
Fax: +49 211 8817 74127
Website: www.sms-siemag.com

The capacity since the installation of the SMS Meer works has risen to 630,000 tons

Expansion of onshore China plant

TECHNIP has been awarded a services contract by BP Zhuhai Chemical Company Limited, a joint venture of BP and Zhuhai Port Co Ltd, for the expansion of the Zhuhai 2 Purified Terephthalic Acid (PTA) plant at their site in Guangdong Province, China. This execution contract will be developed by an integrated Technip-client team.

The expansion of the plant represents an incremental capacity of 200,000 tons per year and will bring the total capacity of the Zhuhai 2 unit to 1,100,000 tons per year.

It will employ BP's latest technology and is expected to come on stream during quarter one of 2012 to meet China's growing demand for PTA.

PTA has the form of a white and crystalline powder primarily applied as raw material in the production of polyester fibres and plastic materials.

Technip's operating centre in Rome, Italy, will execute the contract, which falls within the framework of the on-going alliance between BP and Technip for PTA and follows Technip's completion of the original Zhuhai 2 unit and of the subject expansion front end engineering design.

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AWST 2011 will be held in Turkey

AFTER the successful completion of the 63rd Annual Assembly of the International Institute of Welding (IIW) in Istanbul in July 2010, Gedik Education Foundation (GEV) and Turkish Welding Technology Academy (TKTA) now invite welding scientists, engineers from industry and academia to take part in IIW International Congress AWST 2011 in Antalya, Turkey on 21-22 October.

AWST 2011 aims to bring leading scientists and engineers to share recent advances in welding and joining sciences and technologies to achieve cost-effective, environmental friendly, safe and long-lasting welded systems in construction, energy and transportation. The Congress will be chaired by TKTA president Dr Mustafa Koçak and will take place at one of the most beautiful locations of Turkey, Antalya.

Papers are invited to cover, following topics where parallel oral sessions and poster exhibition will also be organised.

Recent developments at the show include: advanced steel and Al-Alloys and their weldability; development of welding consumables, advanced welding processes, FSW, laser; welding, design and simulation approaches and their industrial applications; testing and characterisation of welds; analysis of fatigue-fracture-corrosion-creep mechanisms of welds; and fitness-for-service (FFS) procedures, applications and standardisations.

AWST 2011 – Turkey
Website: www.awst2011.com

Elcometer acquires Dakota Ultrasonics

ELCOMETER Limited, a supplier of inspection equipment to the coatings, concrete and metal detection industries, is pleased to announce the acquisition of Dakota Ultrasonics Incorporated of Santa Cruz, California. "Dakota's commitment to high quality products and service to the non destructive testing community is second to none," stated Michael Sellars, managing director of Elcometer Limited. "The similar ideals and beliefs of our two organisations will allow us to work together to further enhance our commitment to the global inspection community. We look forward to going from strength to strength."

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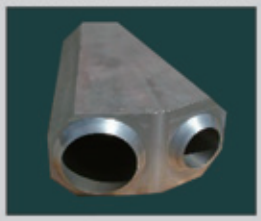

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Fax:+86-317-6216662 6392682

Mobile phone:+86-15833271188

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Msn:wenlong@hbtenghao.com

Alibaba account ID: wenlongpe

website:www.tenghaope.cn http://tenghao.en.alibaba.com

GYS expands with four new appointments

GYS Ltd, the French welding equipment and battery charger manufacturer, has appointed four new personnel, as its operations continue to expand in the UK market.

Neil White has been appointed area sales manager, East Midlands. He brings with him considerable experience in sales and sales support within the tooling and automotive sectors. Jenny Nightingale has been appointed area sales manager, South West England, and she also brings experience working with distributors in the industrial sector.

Both of these important appointments will be responsible within their respective regions for introducing GYS to new distributors and working with them to increase sales in the tool shop, welding, agricultural and automotive equipment distributor sectors for the complete range of GYS welding and battery charger products.

Laura Howell has been appointed marketing assistant and will be responsible for the company's marketing activities, enhancing all communication materials through traditional and new media, building the GYS brand and supporting distributors' sales advertising, literature production, exhibitions and media relations.

Jack Rombach has joined as warehouse operator with responsibility to run the warehouse operations, ensuring high levels of logistics service to GYS distributors.

Neil Pulsford, UK commercial director, commented, "These four appointments come at a crucial time, as we continue to expand into the UK market, and will be very important for our future growth. We have only been in the UK for a relatively short period but the GYS brand is being received very well.

"We are of course delighted to be expanding at the rate we are, having recently moved into new larger premises in Warwick and added these four people to our team."

GYS Ltd – UK
Fax: +44 1926 429 764
Email: uk@gys.fr
Website: www.gys-welding.com

GYS – France
Fax: +33 2 43 68 35 21
Email: contact@gys.fr
Website: www.gys.fr

GYS's new UK premises

Hexagon in Dormer deal

HEXAGON Metrology Ltd, the supplier of dimensional metrology systems, has entered into a partnership with Dormer Tools based in Sheffield.

At their new facility in Waverley, near Sheffield, there is a concentration of high technology cutting tool solutions. Alongside these will be various solutions from Hexagon Metrology's arsenal of high-tech dimensional metrology systems.

One application of particular relevance will be the inclusion of PC-DMIS NC and M&H Machine Tool Probes, these Hexagon Metrology products allow for in-process metrology on CNC machine tools.

"A partnership like this allows us to demonstrate that bringing metrology and cutting tool technologies closer together can offer benefits for the end user," explains David Brown, general manager of Hexagon Metrology Ltd, UK. "Having our products on hand at the Dormer facility will allow users to learn and understand how metrology is truly an integral part of the production cycle."

Hexagon Metrology UK
Website: www.hexagonmetrology.co.uk

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STELLAR

Rental programme for fusion machines

PIPE fusion expert McElroy has introduced the Certified McElroy Rental programme, a partnership between the company and participating distributors to supply customers with reliable fusion machine rentals.

Participating distributors will use a comprehensive checklist created by McElroy to check machines after each rental. By participating in the programme distributors have pledged to provide greater continuous care of McElroy rental machines, creating a premium rental option in the marketplace. If a repair is needed, participating distributors are committed to using genuine McElroy parts installed by factory-trained mechanics.

"We believe the Certified McElroy Rental programme answers a need in the market," said Chip McElroy, president of the company. "Our customers have options. They can buy a new machine, buy a used machine or rent. We want all of these experiences with McElroy to be great for the customer. It was important for us to create a McElroy rental experience that offers superior security and reliability."

A new website, www.certifiedmcelroy.com, allows contractors and pipeliners interested in a premium rental to search by state or province to locate McElroy distributors that carry Certified McElroy Rental machines. Each designated rental machine has a sticker on the fusion unit that signifies that it is part of the Certified McElroy Rental programme.

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A McElroy tube machine that is part of the rental programme.

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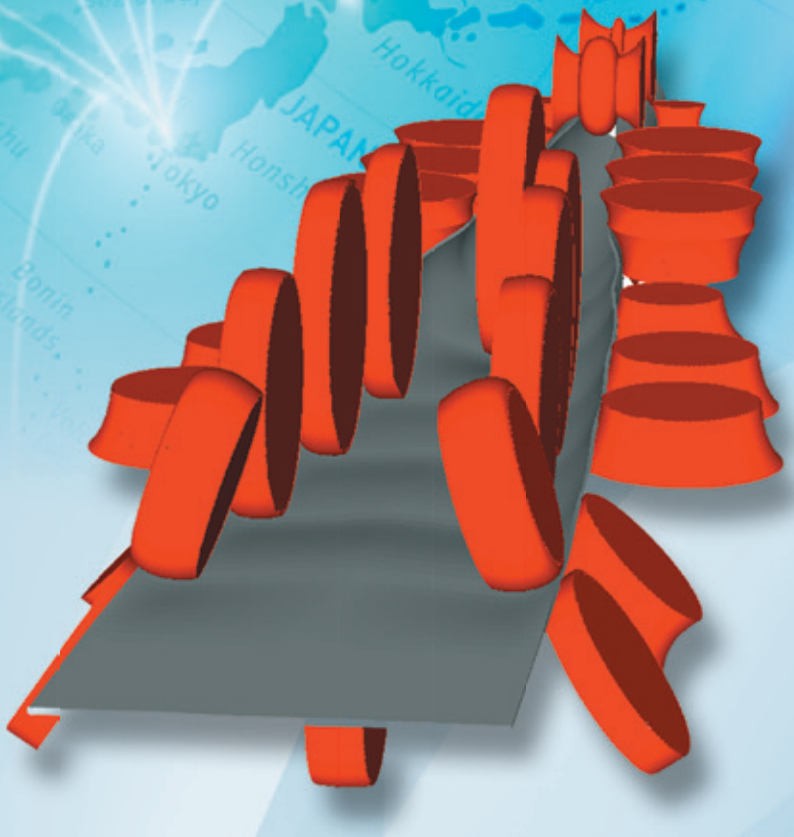

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Yokohama Tube & Pipe 2011 Symposium

ONE of the International Tube Association's most acclaimed technical events in recent years, Nagoya Tube 2007, was a collaborative symposium, organised jointly by the Association and the Japan Society for Technology of Plasticity (JSTP). After a gap of four years the two organisations will work together again on another symposium in Yokohama, Japan.

The JSTP will be celebrating its 50th anniversary during this period and the Yokohama event will be a major feature of the celebrations.

Technical sessions will be held in the Pacifico Yokohama Conference Center over two days on Monday 13 and Tuesday 14 June 2011. 15 June will be devoted to plant tours.

Professor Manabu Kiuchi, honorary life president emeritus of the ITA and JSTP board member, leads the organising team, supported by other JSTP colleagues as well as by the ITA's Asia Pacific Management Board (APMB), which is headed by ITA chairman Mr Tsutomu Nakata.

A number of core themes have been set as the background to the technical sessions:

- Emerging technologies for innovative tube and pipe manufacturing
- Leading edge core competency in tube/pipe manufacturing
- Advanced laser technologies for high performance tube and pipe processing
- Robotic technologies for productive tube and pipe manufacturing
- Evolution of high strength steels for tubes and pipes, present and future
- High functional tube and pipe for drastic energy saving and CO_2 reduction

The technical papers will include a number from academic and research institutions in Japan, from major Japanese producers and equipment suppliers as well as from suppliers of leading technology from around the world. In addition there are several keynote papers from specially invited speakers. Table top exhibits will be available to interested parties. A conference banquet will be offered to delegates on one evening.

All Japanese colleagues interested in finding out more about the symposium should contact the JSTP Secretariat and those from outside Japan should contact the ITA or visit the website, from where a conference brochure can be downloaded: www.itatube.org

Professor Makoto Murata (chairman of Roll Forming Committee of JSTP)
The University of Electro-Communication – Japan
Phone: +81 42 443 5408
Email: kaji@mce.uec.ac.jp

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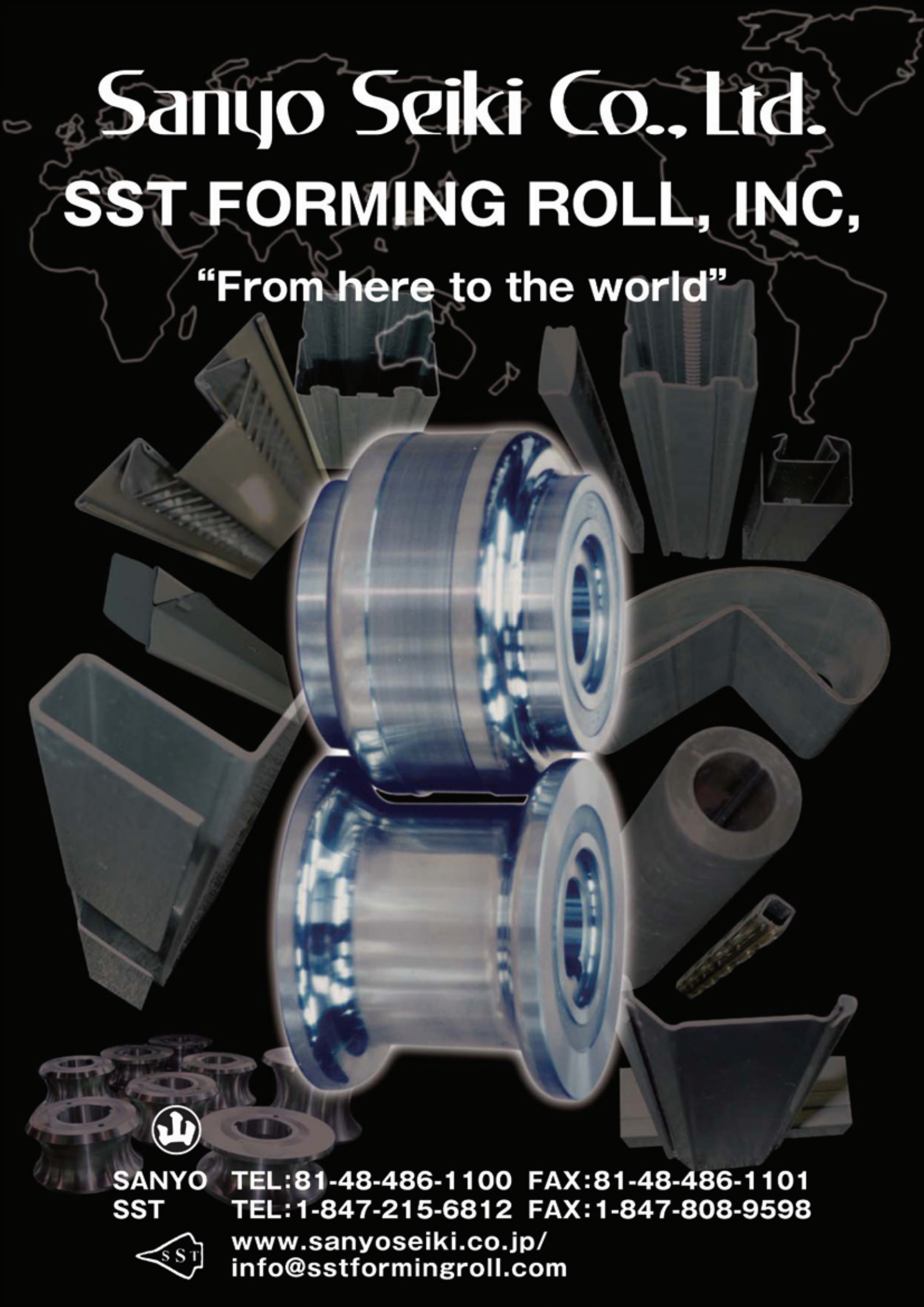

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Specialised Sandvik tubes help to preserve 17th century Swedish ship

THE Vasa Museum and Sandvik have announced a research and development cooperation agreement for an essential bolt replacement project to commence on the famous Vasa ship, in order to preserve the 17th century vessel's structural integrity well into the future.

The cooperation will see the replacement of 5,000 iron bolts, originally installed in the 1960s, with unique bolts in highly advanced stainless steels from Sandvik, normally used within the demanding oil/gas-industry. It was brought about by the discovery that the original bolts were reacting with the atmosphere and consequently causing chemical erosion, which was damaging the historic woodwork of Vasa. The project is the culmination of two years' cooperation with Sandvik Materials Technology's R&D specialists to devise a replacement strategy and identify and evaluate suitable materials for the very specific application.

To mark the cooperation there was a symbolic exchange of one of the original wrought iron bolts and a new stainless steel bolt, between Robert Olsson, director general, Statens Maritima Museer, and Peter Gossas, president of Sandvik Materials Technology.

"Working with Sandvik ensures state-of-the-art technological expertise within the area of materials technology," commented Dr Marika Hedin, Vasa Museum director. "Since the warship Vasa is a Swedish national treasure, we can only use the very best materials available in our quest to preserve her, which we aim to do for 1,000 more years.

"Only Sandvik has the material, the equipment and the technical know-how to help us with this. They have already been resourceful and innovative in helping us develop the re-bolting process, a cooperation which will continue to evolve over the next five years. It is interesting that Vasa in her time, the early 17th century, was an example of maritime engineering at the forefront of human knowledge. In fact, the engineering was so advanced that she was extremely difficult to sail – one of the contributing factors to her sinking. Salvaging her in 1961 was also something of an engineering triumph.

"And now, we put Sandvik and their extremely advanced materials technology to work on the ship – so in a sense the story of this ship has always been tied in with current state-of-the-art technology."

During the first year the cooperation will see 1,000 bolts replaced, and these will all be carefully monitored to assess and evaluate the movement and stresses within the vessel. The new bolts are assembled from seven different parts, with the major component being a 28x2mm SAF 2707HD tube.

Peter Gossas commented, "Being able to play such a significant role in helping to preserve an irreplaceable national treasure such as Vasa is a privilege for us. It showcases the extensive material engineering expertise that we, as a Swedish company, have at our disposal.

"It is fitting that we are able to supply today's leading edge materials technology to help preserve innovative marine technology from the 17th century. It is a tribute to Swedish technology through the ages and will be a lasting one for years to come, for all to enjoy." Coincidentally, the announcement of the cooperation comes just before the 50th anniversary of when Vasa broke the surface in Stockholm harbour in April 1961. This anniversary will be celebrated from April and throughout 2011. In 2012, Sandvik will also celebrate its 150th anniversary.

Sandvik – Sweden
Website: www.smt.sandvik.com

Vasa Museum – Sweden
Website: www.vasamuseet.se

(Above) Over 5,000 bolts were positioned in Vasa after the ship was salvaged 1961. They were all fixed in the ship's existing bolt holes, where the original bolts had rusted through

Ove Olsen hammers out one of the old bolts, while communicating with carpenter Monika Ash via radio in the hearing protection headset

Monika Ash inserts one of the new bolts into an old hole, using a specially built machine

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Key promotion for water pipe firm

UK WATER quality engineering firm Panton McLeod has promoted civil engineer Barclay Smart to operations manager, as part of an ongoing strategy to increase the firm's repairs, cleaning and inspection presence in the UK water sector over the next 12 months.

Mr Smart joined Panton McLeod in 2009 and has already managed many of the firm's projects across Scotland over the past year. In his new role, the 30-year-old Dundee University graduate will work closely alongside Panton McLeod's operations director Paul Henderson to coordinate a range of specialist cleaning, inspection and repair work on service reservoirs and water storage facilities throughout the UK.

Mr Smart commented, "The last year or so has been a very important time for Panton McLeod. The company has been growing steadily and is now offering even more services than ever before to the UK water sector, so it has been very rewarding to have been part of the team responsible for driving forward that growth.

"However, I'm delighted to be promoted as operations manager and to have the opportunity to help grow the company's influence even further across the UK. I'm now looking forward to taking a bigger role in managing Panton McLeod's operations and projects throughout the whole country."

In his previous work as a civil engineer for construction firms Mowlem Plc and MJ Gleeson, Mr Smart was involved with a number of high-profile projects across the UK, including a new training area for the Ministry of Defence in Northumberland, the construction of the new Kelso Bowmont service reservoir and an upgrade of the Melrose Sewage Treatment Works.

During his tenure as a civil engineer with Panton McLeod, he has been a central member of the team responsible for managing the firm's high-profile projects throughout Scotland.

Panton McLeod – UK
Fax: +44 1835 822 919
Email: info@pantonmcleod.co.uk
Website: www.pantonmcleod.co.uk

General manager appointed

CENTRAL Tube & Bar has named Gary Garbelman as general manager of its Tulsa Oklahoma facility.

Dustin Ward, president of CTB, said: "Mr Garbelman has displayed a remarkable understanding of our markets and capabilities, as well as a keen ability to motivate and lead his team in Tulsa."

Central Tube & Bar is a wholesale distributor of tube and bar products with a focus on value-added services. CTB operates service centres in Arkansas and Texas.

Central Tube & Bar Inc – USA
Website: www.centraltubeandbar.com

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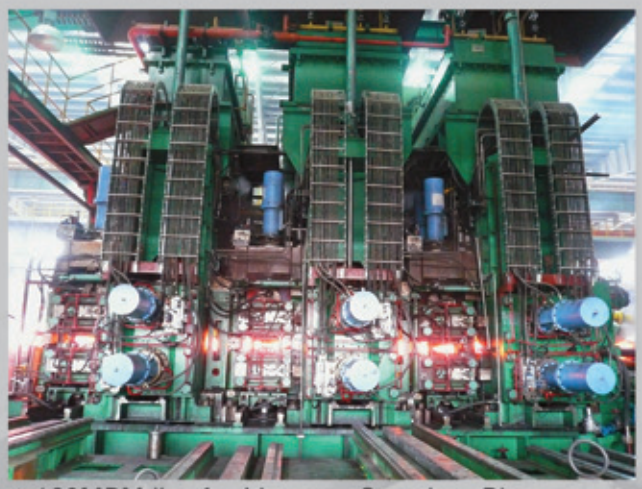
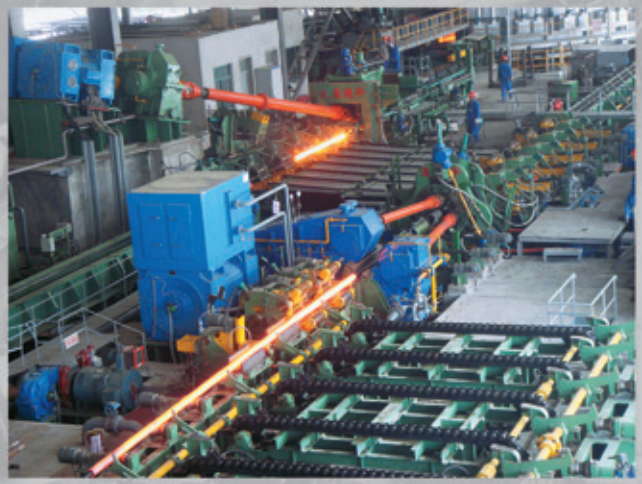


Φ180MPM line for Liaoyang Seamless Pipe



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Sixth Tubotech 2011 returns to São Paulo

TUBOTECH holds its ground as the largest trade fair of the pipe and tube industry in South America. The sixth international trade fair for pipes, valves, fittings and components will open its doors from 4 to 6 October 2011 in São Paulo, Brazil.

The focal product categories are raw materials for tubes, tube manufacturing and processing, tubes and connecting pieces, machinery for producing tubes and pipes, and measuring and monitoring instruments.

In 2009 over 300 exhibitors from 15 countries showcased their products and innovations to 16,500 trade visitors. Tubotech offers Brazil and the surrounding countries an excellent opportunity to gather information in their own continent and also offers international exhibitors a gateway to the major South American market.

The supporting organisation is the International Tube Association, and Messe Düsseldorf will again be the co-organiser. A number of other trade fairs will take place simultaneously: Expovalvulas (motor pumps and pumps), Expobombas (valves), Termotech (thermal technologies), Metaltech (metalworking), and Feigas (a gas industrial fair). For the first time the trade fairs WICAB (wire and cable), Petrotech (oil, gas and bio-combustible industry) and Febraman (material handling, transport, storage and maintenance) will also be part of the event.

Tubotech 2009 had 16,500 visitors

Further information, conditions of participation, and application forms for the event can be obtained from http://tubotech-online.com/tubotech_2011_application_forms

Messe Düsseldorf GmbH
– Germany
Email: wynhoffu@messe-duesseldorf.de
Website: www.messe-duesseldorf.com

Beijing International Steel Tube Expo 2011

THE 8th China (Beijing) International Steel Tube Industry Expo 2011 will take place from 16 to 18 June 2011, at the China International Exhibition Center, Beijing.

The exhibition scope for steel tube products includes petroleum casing pipe, large-diameter oil delivery pipe, gas pipeline, seamless steel tube, welded pipe, stainless pipe (square, rectangular, circular stainless steel tube), cone-shaped seamless steel tube, profiled seamless steel tube, metal bellows, industrial welded pipe, carbon steel pipe, and fittings. The event will also feature steel tube equipment, seamless steel tube units, and steel tube accessory equipment.

The event is sponsored by China Beijing Metal Material Circulation Association; China Cold Roll-Forming Steel Association; China Hebei Steel Tube Trade Association; China Association of Plant Engineering; and Beijing Hiven Exhibition Co Ltd.

Beijing Hiven Exhibition Co Ltd (organiser)
– China
Miss Zuo, organising committee
Email: zuojuan17908@163.com

Sailing the Atlantic pipe dream

IF you think that polyethylene pipes are suitable only for water or gas transportation, think again. A crew of four are sailing across the Atlantic Ocean on a raft made of plastic pipes.

On 30 January, Anthony Smith, David Hildred, Andrew Bainbridge and John Russell set out to fulfil the pipe dream of their lifetime to make a 3,000 mile voyage across the Atlantic in about 70 days. Captained by 84-year-old Mr Smith, who is a former presenter of BBC television's science and technology programme Tomorrow's World and made the first balloon crossing of the Alps, the crew departed from La Gomera in the Canary Islands towards Eleuthera in the Bahamas, all on a raft made from PE pipes.

Four large blue pipes, each approximately 39ft long, form the basis of the raft. These are 710mm diameter Excel (PE100) pipes, designed to operate at a pressure of 8 bar. Sealed at both ends, they act as buoyancy chambers, whilst their thickness will ensure the raft's ability to survive, whatever it meets during the Atlantic voyage.

Fourteen smaller 315mm cross pipes serve as the support for the deck. Positioned at either end of the raft are yellow gas pipes, sealed with air. Seven blue pipes in the middle are filled with 2,000 litres of fresh water for the journey. Polyethylene was chosen due to its strength, resistance to cracking and low density (951kg/m^3 compared with 1,000kg/m^3 for water). This density makes PE pipes so buoyant that they will float even if full of water.

GPS PE Pipe Systems' technical team assisted the rafters throughout the design process to ensure optimal PE products for this unusual application. One of the many design solutions was to use electrofusion tapping tees fittings to fusion-weld stanchion supports onto the deck pipes.

Trials of a smaller raft were made at Melbourne, Australia. After this, pipes were extruded at the GPS factory in Huntingdon, UK, and all the equipment and materials for the raft were assembled and loaded into a 40ft container, and shipped to the Canary Islands in November.

The crew of four have a combined experience of 258 years and all are eager to show that advanced years do not forbid adventures for those who embark on them.

They also aim to raise funds for WaterAid and help draw attention to the work they do in providing the world's poorest communities with access to safe water, sanitation and hygiene education. To see how the voyage is progressing or to sponsor the team, visit www.an-tiki.com

WaterAid
Website: www.wateraid.org/uk

GPS PE Pipe Systems – UK
Website: www.gpsuk.com

The raft is constructed from plasic water tubes

Kenny awarded oil export pipeline design

WOOD Group's JP Kenny has been awarded a contract to perform detailed design for Amberjack Pipeline Company LLC's Jack/St Malo deepwater oil export pipeline in the Gulf of Mexico. Amberjack Pipeline Company LLC is a joint venture between Chevron Pipe Line Company and Shell Pipeline Company LP. Chevron Pipe Line Company will construct and operate the pipeline for Amberjack.

The one-year contract follows JP Kenny's successful completion of the front-end engineering and design for the project. The approximately 136-mile 24" pipeline will originate in a water depth of 2,100m (7,000ft). It will start at the Chevron USA Inc-operated Jack/St Malo hub production facility in Walker Ridge Block 718, approximately 280 miles south of New Orleans, and connect to the Shell Boxer 'A' fixed platform at Green Canyon Block 19. The design must allow for technical challenges that include routing of the pipeline to minimise spans, design for pre- and post-installation vortex-induced vibration and stress spans, collapse testing of the pipe to verify wall thickness design, and installation of in-line valves and sleds.

JP Kenny's sister companies, MCS Kenny, MSi Kenny and Wood Group Integrity Management (WGIM), will support the project, providing subsea span analysis, flow assurance and materials engineering, respectively.

"We are extremely pleased to continue our support of Amberjack as owner and Chevron Pipe Line Company as operator of the Jack/St Malo pipeline project," said Steve Wayman, Wood Group Kenny chief executive officer. "The full experience and demonstrated capabilities of the Wood Group Kenny organisation will enable the project to safely and effectively support the future production from the Jack/St Malo hub production facility."

Wood Group Kenny comprises four companies:

JP Kenny, one of the world's leading independent subsea and pipeline organisations provides solutions that range from the planning stage through to procurement, fabrication, construction management, commissioning and operations support.

MCS Kenny is an engineering and software services company working in the offshore oil and gas subsea sector.

MSi Kenny is a flow assurance and process optimisation company; and Wood Group Integrity Management is an independent engineering and management company, specialising in all-of-asset integrity assurance with materials engineering resources, service life prediction and inspection.

Wood Group – UK/USA
Website: www.woodgroup.com

The biggest tube and pipe fair in Korea

INTERNATIONAL Metal Industry Technology Exhibition in Korea (Korea Metal Week 2011) will be held from 28 September to 1 October 2011 in Kintex, Korea.

Korea Metal Week 2011 is described as the first 100,000m^2 scale fair simultaneously held with machinery, tool, printing, plastic and electric fairs. It is expected that more than 200,000 professional visitors will visit during the fair.

The show integrates all metal production technologies, and comprises five established events under the same canopy: tube/pipe and cable; fasteners and wire; machine parts and mould manufacturing; foundry/ forging and furnace; and die casting. The latest technologies of tube and pipe, such as products, machinery and equipment, will be presented during the fair.

Korea Trade Fairs Ltd – South Korea
Fax: +82 2 784 6810
Email: info@ktfairs.com
Website: www.korea-metal.com

The Metal Industry Exhibition attracted 200,000 visitors

The largest plate roll machine in Ecuador

THE expansion of Davi in Latin America counts as a new success for the company in a new region with the sale of a large variable-axis plate roll. As well as being the largest plate roll in operation in the country and capable of rolling 10" wide and 3" 1/8 thick plate, this machine has been sold to the largest pressure-vessel manufacturer in Ecuador. Its newest South American customer is reacting to the sector's trend towards using high resistance steel. An aspect that is making it imperative to update fabricating equipment locally with higher rated machines. The purchase of this machine confirms the trend.

"Once again our innovative variable axis plate roll has been chosen in due to the flexibility obtained by horizontal movement of the side rolls and to the upper roll which also moves vertically. The result for the customer is virtually perfect flat ends making it suitable for pressure vessels manufacturing at a very high quality and productivity," said Orazio Davi, president of Promau.

Davi – Italy
Email: marketing@davi.com
Website: www.davi.com

One expert for heavy gauge tube mill

KUSAKABE is a specialist in small diameter extremely heavy gauge tube mill plants. It has delivered nine complete lines to Japan, the USA, Germany, Taiwan and Turkey.

It has been producing OD 31.8mm tubes with 8mm, 38.1mm tube with WT 8mm, OD 42.7mm tube with 8.6mm and OD 50.8mm tube with WT 10mm. The tubes manufactured from those especially designed mills are processed and mainly applied to the automotive industry. As a consequence, it can be said that small and thick welded tube will be more focused on when various industries will find the possibility to lower the cost or reduce the weight and so on. The company are now undertaking an independent investigation of welded tubes to satisfy the quality standards and safety seen in seamless tube.

Kusakabe – Japan
Email: sales@kusakabe.com
Website: www.kusakabe.com

A-D Technologies acquires Bore Flex

A-D TECHNOLOGIES, a portfolio company of Audax Group, has acquired the assets of Bore Flex Industries. Based in Mountain Grove, MO, Bore Flex manufactures HDPE pipes and conduits serving the telecom, power, and pressure pipe segments. Bore Flex has facilities in Mountain Grove, Missouri; Tennille and Sandersville, Georgia; and a distribution centre in Fort Myers, Florida.

A-D Technologies will integrate Bore Flex into its current US regional operations with headquarters in Knoxville, Tennessee. A-D Technologies was formed in March 2007 through the merger of Dura-Line and Arnco. The company operates worldwide under its flagship Dura-Line brand. "This will broaden our product offering for the pressure pipe market," said Paresh Chari, president and CEO of A-D Technologies.

A-D Technologies – USA
Email: moreinfo@adtechnologies.com
Website: www.arncocorp.com

www.otomills.com

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New steel pole plant built

AMERON is a producer of water transmission lines and fabricated steel products such as wind towers; fibreglass-composite pipe for transporting oil, chemicals and corrosive fluids and specialised materials; and products used in infrastructure projects.

The company has announced plans to construct a new steel pole plant in Tulsa, Oklahoma. The capital investment for the 75,000ft^2 facility is expected to total approximately $35mn, and the plant should be operational within two years.

The facility will include a proprietary manufacturing process and when fully operational the facility will have an annual sales capacity of up to $75mn. The manufacturing capabilities provided by this investment will allow the business to effectively compete in a broad range of product applications for the national transportation market.

The strategic initiative focuses on the national transportation infrastructure market for applications such as highway lighting, traffic signal control structures, light rail, high mast and smart grid structures, and highway signage. These are large national markets that generally benefit from federal and state funding and that are forecast to experience long-term, steady growth to support the necessary expansion and upgrade of the US transportation system. The broad steel pole product line would complement the company's line of decorative concrete lighting poles used in commercial and residential markets. In addition, it is expected that offering a full steel pole and concrete pole line would provide synergies throughout the distribution network.

James S Marlen, Ameron's chairman, president and chief executive officer, stated, "This investment represents a significant strategic growth opportunity in a market with which we have experience. With the new plant, we will have a cost-efficient, state-of-the-art manufacturing process and the capacity to grow the business."

Ameron International Corporation – USA
Website: www.ameron.com

New diameter measuring systems for Korean mills

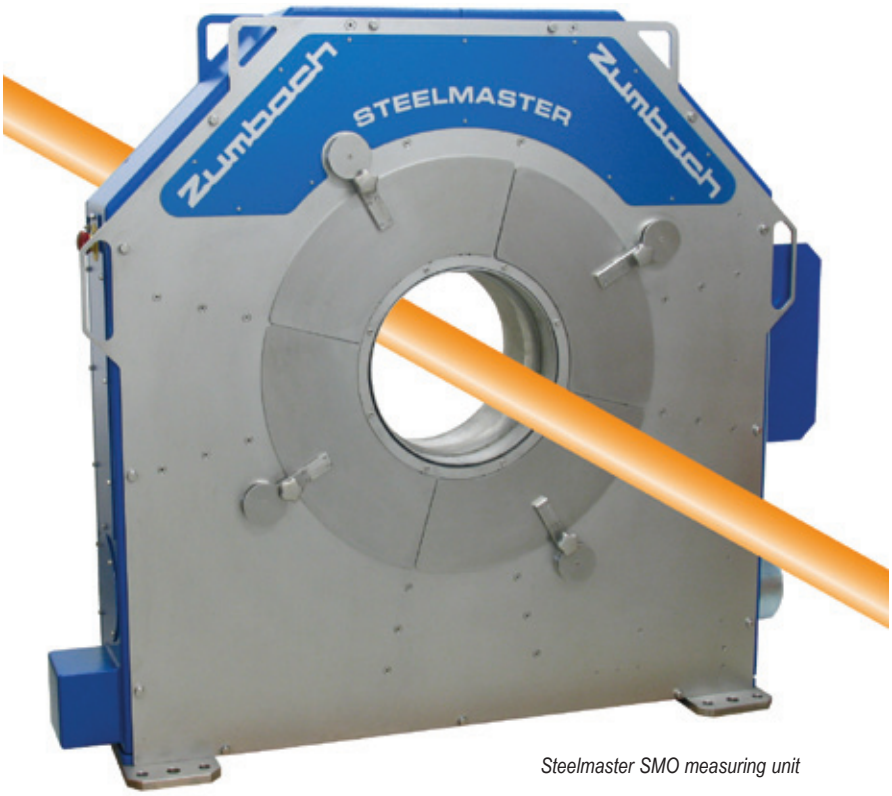
ZUMBACH Electronic has won a contract from POSCO Pohang works in Korea for ten Steelmaster diameter/profile measuring systems. The new systems will partially replace existing gauges or complete unequipped locations in the finishing sections of the company's #1, #2 and #3 rod mills.

All gauges are equipped with six Odac high speed laser scanners (in six axes), delivering 6,000 calibrated measurements per second, as well as with the latest hardware and software concept. The systems will be fully networked over Ethernet with POSCO's material flow and QC control system.

Delivery of the compact gauges, which require close-to zero maintenance, was scheduled for early 2011. POSCO has operated a number of similar Steelmaster gauges in the intermediate sections since 2008.

Zumbach Electronic is one of the leading manufacturers of in-line measuring, monitoring and control systems for the wire and cable industry, (from wire drawing to fibre optics, including extrusion of insulation and jackets), for plastic extrusion lines (mono filaments, catheter, tubing, pipe or profiles) and for the metal industry (hot and cold rolling, continuous casting, turning, grinding, polishing to QC inspection stations).

Zumbach Electronic AG – Switzerland
Fax: +41 32 356 04 30
Email: sales@zumbach.ch
Website: www.zumbach.com



Steelmaster SMO measuring unit

Global Standards

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E-mail: frvuser@gmail.com frvemail@gmail.com Web: www.frv.cn

Rise in production quality at Huaigang

HUAIGANG Special Steel Co Ltd, a company of the Chinese Jiangsu Shagang Group, has placed an order with the German company Friedrich Kocks GmbH & Co KG in Hilden for the modernisation of their existing rod and bar mill. The target of this modernisation, which will be reached to a high degree by implementing a Kocks 3-roll reducing and sizing block, is to raise the product quality in order to strengthen the market position.

The new reducing and sizing block is dimensioned to operate with four 3-roll stands and a nominal roll diameter of 215mm. It will be implemented as finishing block in the 600,000 t/a rolling mill behind an existing ten-year-old Danieli Morgårdshammar roughing and intermediate mill consisting of 18 2-high HV stands. The 3-roll block will roll straight bars from 13mm Ø to 22mm Ø onto the cooling bed.

The RSB allows rolling out of only one pass series from the roughing and intermediate mill and thus significantly reduces the number of required feeders. Any desired finished dimension of the complete dimensional range can be produced in any desired sequence with a minimum number of roll sets and just a few stand changes.

The Kocks scope of supply includes the 3-roll reducing and sizing block with automatic quick stand changing system, remotely controlled adjustment of passes and guides as well as the roll shop equipment with quick roll change and CAPAS – the computer aided system for accurate adjustment of rolls and roller guides of 3-roll stands.

Friedrick Kocks GmbH & Co KG – Germany
Fax: +49 2103 54028
Email: v.d.heiden@kocks.de

Largest ever Australian polymer lining drinking water project takes shape

SWAGELINING Limited specialises in the control and prevention of internal corrosion in new and existing pipelines.

The company uses polymer lining technologies developed from a concept originally created by British Gas and United Utilities.

The company's official Australian partner, ITS Trenchless, has announced that it has secured a $4mn contract with South Australia's water utility corporation, SA Water, to perform the largest polymer lining drinking water project to be undertaken in Australia.

The £2.5mn contract, which is now underway, will take approximately four months to complete. The project involves lining 4,630m of existing 24" nominal diameter water main that runs beneath one of the busiest roads in Adelaide. Stephen Barnes, managing director at Swagelining Limited said, "Our patented Swagelining™ technology was originally developed specifically for rehabilitating utility pipes in challenging locations, such as beneath busy roads.

"The Swagelining system is highly versatile with liner thickness varying from project to project. In the case of the Adelaide project a 594mm polyethylene (PE) 100 liner with a wall thickness of 56mm is being used to meet the client's requirement for a liner with full structural capability.

"This is in contrast to another water project recently completed in the UK where the requirement was for a thin semi-structural liner, which saw us install a 1,016mm PE100 liner with a wall thickness of only 20mm." Swagelining Limited's bespoke software package, which enables the optimum liner size to be selected to achieve maximum pull length, established that pull lengths of over 600m can be achieved for the Adelaide project, further minimising excavations.

Mr Barnes continued, "Unlike open trenching methods, Swagelining has minimum impact not only on the community, but offers significant environmental benefits as well. These include a reduction in raw material usage, less waste to be disposed of, lower noise levels, less dust, and the ability to complete the project within a short time frame."

Swagelining Limited – UK
Email: enquiries@swagelining.com
Website: www.swagelining.com

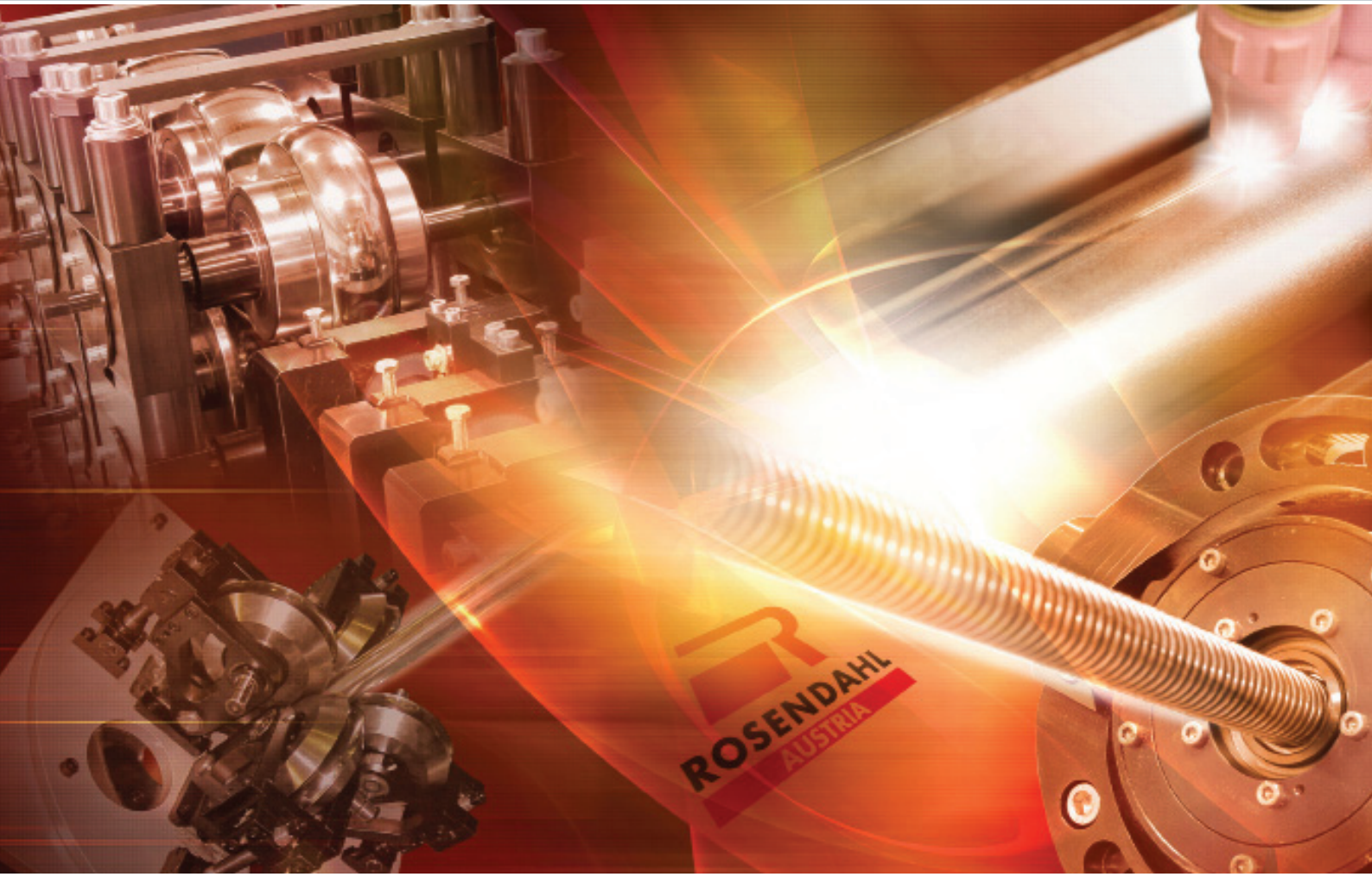
Order for 12,000 rolls in Northern India

PROLIFIQUE Rolls Pvt Ltd is a roll and tooling manufacturing company based in Northern India, with experience of manufacturing rolls over a period of 15 years. Around two years ago the company's brand name was changed to Prolifique Rolls when new management took charge of the manufacturing facility.

The company provides quick delivery and uses high quality material imported from Europe. Over the last two years the company has received numerous orders from reputed international firms based all over Europe, North America, Africa and South East Asia. Its manufacturing facility uses the latest CNC turning centres, imported from Germany, to deliver high quality and precision end products that are used in various sectors, including auto and bicycle industry, construction, engineering, petroleum, boiler and heat exchanger and conveyor industry. Prolifique Rolls recently received a large order of approximately $3.5 million to manufacture more than 12,000 rolls for an Indian OEM for one of the largest steel producers in the country, currently on a massive expansion. Prolifique Rolls has seen a robust growth of 100% in the last two years and as a result is expanding its manufacturing capacity to maintain the growth pattern.

Prolifique Rolls Pvt Ltd – India
Email: tchaudhary@prolifiquerolls.com
Website: www.prolifiquerolls.com

Tape Forming • Welding • Calibration • Corrugation



Tube Mills for Welded Tubes

Rosendahl tube mills for austenitic and ferritic stainless steel, nickel basic alloys, titanium-, copper- and aluminium-alloys.

www.rosendahlaustria.com

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Hall 7
Booth 5C01

Tube Russia

KNILL Gruppe

Appointments to services and sales management team at Beta LaserMike

BETA LaserMike, a global provider of precision measurement and control solutions, has appointed four key management to further the company's focus in delivering customer service and product solutions to the markets and customers it serves.

Ken Bornhorst joins the company as director of global service and business development; Ian Warren is appointed Europe, Middle East, and Africa (EMEA) service manager; Charles Wrinkle is named district sales manager for the Southeast US region; and Mike Cooley assumes the South Central US region.

As director of global services and business development, Ken Bornhorst has overall responsibility for structuring and developing a high-performance global service organisation to deliver services and technical solutions to customers. He will also drive the company's service expansion strategy and growth objectives through next-level relationships, technical consultation and tailored, comprehensive customer-value implementation programmes.

As EMEA service manager, Ian Warren will oversee the overall customer service and support operation in this region as well as play a key role in optimising best practices in service delivery. He will work closely with Mr Bornhorst to execute strategic service and support programmes in line with the company's mission.

As district sales manager Charles Wrinkle will have overall responsibility for the growth and development of the Southeast US sales territory, as well as the management of Beta LaserMike's agents and representatives in this region. He will play a key role in delivering Beta LaserMike's complete portfolio of solutions to all industrial markets.

Beta LaserMike also announces expanded sales responsibilities for Mike Cooley, district sales manager for the Central US. His new responsibilities include the addition of the South Central region, which consists of Arkansas, Oklahoma, Texas and Louisiana. Mr Cooley is presently responsible for managing sales activities in the North Central region, which includes Nebraska, North and South Dakota, Iowa, Kansas and Missouri. In addition to account management, Mr Cooley will be responsible for managing the network of agents and representatives in this new region.

Beta LaserMike – USA
Website: www.betalasermike.com

Ken Bornhorst

Charles Wrinkle

Mike Cooley

Insituform expands India operation

INSITUFORM Technologies Inc has announced that its Indian joint venture, Insituform Pipeline Rehabilitation Private Limited (Insituform-India), has been awarded a contract valued at US$5.6mn to rehabilitate 16,000ft of medium diameter sewer pipelines for the Indian water utility Uttar Pradesh Jal Nigam, located in Northern India.

The contract strengthens Insituform-India's position in the Indian market with the expansion into Uttar Pradesh. The project marks the first contract for Insituform-India outside Delhi, where it has been awarded approximately $42mn in work to date.

Daniel E Cowan, Insituform's vice president for the Asia-Pacific area, said: "We are proud to partner with M/s IVRCL, the project's general contractor, and are confident in our unique capabilities as a global leader in pipeline protection to meet the demands of this project."

Insituform-India was expected to begin the project in February, installing Insituform® CIPP (cured-in-place pipe) product and iPlus® Composite, with the work to be completed in approximately 15 months. Insituform-India is a joint venture formed in 2007 between Insituform Technologies and SPML Infra Limited.

Insituform Technologies Inc – USA
Website: www.insituform.com

Comet Roll & Machine Co.

rollforming

Using spring loaded top rolls

Rollforming using spring loaded top rolls is a viable, practical and economical option for many applications. Since the rolls are not held perfectly rigid as other types, their design offers advantages depending on their use. It will be very forgiving to minor changes in material thickness and have less potential for damage if accidentally misfed.

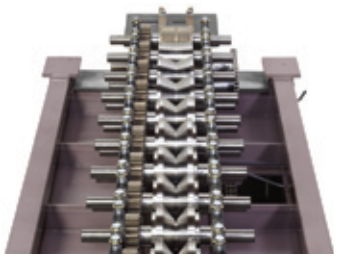
Using this type of arrangement the machine can compensate for varying material thicknesses without manual adjustment. Roll grip is set for minimum material thickness and the springs allow the rolls to lift for heavier gages to enter and maintain drive on the material. Since they can be adjusted to have a very light grip, they are well suited to forming very cosmetic materials such as prepainted, embossed or polished.

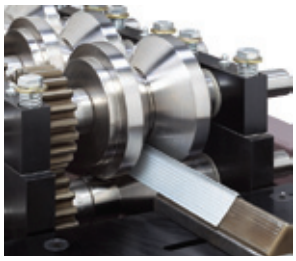
Spring loaded rollformers are proven in a wide range of custom applications from mirror frames to garage doors. They are common in the shelving and storage industries, appliance, wall and roof panels. A dedicated machine, making a family of products for an OEM in the sheet metal industry is where this machine is a top performer.

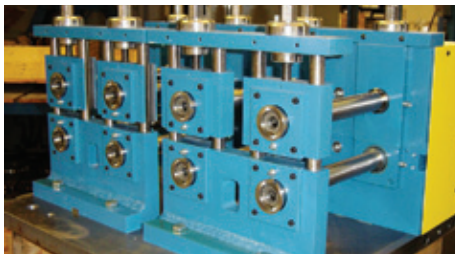
Many times there will be up to four rollsets mounted on one rollformer and the operator will simply feed material into the correct rollset to make the part required. If this type is installed in an automatic line, it will have provision to traverse perpendicular to line, direction to line up rollsets with other line equipment, ie uncoiler, and cut-off.

Another variation is the panel or duplex rollformer. This machine will have two rollformers mounted parallel to each other on one base to form two opposing edges of a wide sheet simultaneously. One or both sides are made moveable to adjust for the desired width range of the product.

Best applications will meet most of the following criteria:
1) Rollsets are rarely or never changed on the machine.
2) Material thickness changes are frequent and common
3) Operator have little knowledge of machine adjustments.
4) Product to be formed is 2" tall or less
5) Expected production cannot justify cost of rigid, micrometer adjust roll mill.







Initial investment can be a significant cost saving over more traditional rollformers, usually about **40%**, so payback time can be significantly reduced. A well maintained machine will run in production for **15 to 20 years**. Many have been in service **for 30 or more**. Those who look beyond the initial perception will see a time proven design, **as dependable as it is economical.**

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CONTACT

Comet Roll & Machine Co.
405 Stone Drive
St. Charles, IL 60174
USA

Phone: (630) 268-1407
Fax: (630) 268-1425
Email: sales@cometroll.com
Web: www.cometroll.com

Technological integrated solutions for tube mill systems from Austria

ROSENDAHL supplies complete tube mill systems for the production of welded metal tubes. These lines are capable of producing tubes and pipes with a diameter from 6 to 1,024mm and wall thicknesses from 0.1 to 20mm. All the lines are individually customised focusing on the needs of the final product application: solar tubes and hoses; heat exchanger tubes; hygienic and process tubes and pipes; and automotive applications. Rosendahl Tube Mills process materials of different grades of ferritic and austenitic stainless steels, nickel basic alloys, titanium, aluminium, copper and its alloys.

The company states that it possesses a fundamental understanding of technological interactions, which makes it possible to offer a widespread product portfolio from a thin walled metal hose for continuous production to a thick walled, heavy weight pipe up to 1,024mm. To offer turnkey solutions Rosendahl applies an integrated engineering database, which covers the process steps: initial tape treatment, tape forming, tube welding, welding seam cold working, tube heat treatment, tube sizing and tube corrugation.

Initial Tape Preparation process steps have a direct influence on tube forming

Rosendahl supplies complete tube mill systems

results, wedge quality for welding and tube surface quality. Aligned with the needs of further process steps Rosendahl supplies solutions for tape handling, tape cleaning, cross cutting and welding, tape accumulation and tape edge preparation for tape widths from 15 to 3,200mm and wall thicknesses from 0.1 to 20mm.

Different applications require a specific kind of forming principle used in the tape forming process. Rosendahl offers static forming by using non-movable toolings, roll forming by using rotating toolings, hybrid forming for large tube diameter to wall thickness ratios and cage forming systems for pipe production up to 1,024mm.

Besides the forming principle for the production of longitudinally welded tubes, an exact preparation and guiding of the tape edges is required. Rosendahl secures this preciseness by considering material properties, the design of the forming stations and forming tools.

Different materials and applications require different welding technologies. With regard to economic efficiency, Rosendahl mainly provides solutions with TIG, plasma and laser welding technologies. The method used in the welding process Rosendahl evaluates the potential influences on the metallurgical structure, hardness value of the welding seam, corrosion resistance of the material, shape and formability of the welding seam, ability for continuous operation and welding speed.

Standards and applications recommend cold working of the welding seam for a lot of tube applications. In many cases the goal is to get a smooth and plain outer surface and inside root of the welding seam like for hygienic tubes.

The single most important aspect in this context is the influence of the welding seam microstructure due to cold working during bead rolling, heat treatment and final calibration. For this purpose Rosendahl offers inline bead rolling equipment for line speeds up to 12m/min and working pressure up to 200 bar for TIG and laser welding mills.

Rosendahl inline tube heating systems are applicable for full body annealing of smooth and corrugated tubes and also for particular heat treatment of welding seams. Induction coil support, containment of the annealing and cooling section, protection gas management unit and water cooling system belong to the in-house engineered and manufactured Rosendahl annealing system. This provides the opportunity for serving adequate heat treating solutions for different materials and tube sizes like bright and black annealing.

To reach dimensional accuracy and product properties in special applications Rosendahl offers static and dynamic tube calibration. This comprises solutions for inline cold drawing for instrumentation tubing, driven turks head systems for heavy walled tubing and multi step roller based tube calibration for heat exchanger tubing.

Corrugated tubes combine mechanic stability and bending flexibility. The corrugation profile significantly influences the product characteristics. Depending on the demand Rosendahl offers efficient solutions for the tube production.

The Rosendahl product range is supplemented by adequate auxiliary down stream equipment including solutions for metal tape handling and preparation, tube coiling and cutting and much more in order to support customised solutions.

Rosendahl Maschinen GmbH – Austria
Fax: +43 3113 5100 59
Email: office@rosendahlaustria.com
Website: www.rosendahlaustria.com

Two-stage honing efficiency

SUNNEN'S new HTG series tube hones are designed as oil field workhorses with high-volume throughput and increased part capacity. The standard HTG-10000 is capable of handling standard part lengths up to 9.14m (30ft) and weights up to 8,000kg (17,600lb).

The HTG's ID range is 50.8 to 609.6mm (2" to 24"), double that of previous generation machines, with an OD capacity of 660.4mm (26") standard, and up to 1,219.2mm (48") as an option. The machine is suitable for instrument piping and down hole equipment applications, such as pumps/motors and hangers, and large hydraulic cylinders like those found on offshore oil platform stabilisers.

A new proportional load control hydraulic system enables maximum utilisation of hydraulic power, delivering power where needed during operation for maximum efficiency. The system can deliver up to 40hp (29.83kW) to the spindle and up to 18hp (13.42kW) to the tool stroking system, for metal removal rates of 3,500cm^3/hr (200+ in^3/hr) using super-abrasives in steel as needed.

For increased speed and accuracy, the HTG uses a new precision hydraulic feed system that combines the brute force of hydraulics with the finesse of a sophisticated control. This includes servo position control of the feed system actuator, electronic pressure control, closed loop feedback and ability to operate both standard tooling as well as two-stage tooling. The machine features a 30.48m/min (100ft/min) maximum stroke velocity, 0-300rpm spindle, and a tool feed force of up to 11,200N (2,500lb). The new servo system on the feed axis provides increased accuracy, as well as improved maintenance, service and setups with no tuning required.

Another upgrade is a next-generation two-stage hone head capable of roughing and finishing without changing abrasives. The two-stage hone head is available with conventional abrasives or super-abrasives. The US-made HTG is available in two standard model sizes: the HTG-4000 with 4m (13.12ft) stroke length and the 10m (32.81ft) stroke HTG-10000. Built-to-order machine sizes include 6m, 8m, 12m and 14m stroke lengths, and custom-length designs can be quoted.

To save floor space, the HTG's electrical panel is mounted with the hydraulic power unit. The power unit is designed for ease of maintenance with accessible components, an easy-to-clean tank, cleanable air filters on the oil heat exchanger, and oil temperature/level indicators on the machine and on the control. A new work base has an improved design sloped to the centre of the machine for removal of honing mud, and includes standard full-time coolant flush. This means operators spend less time shovelling out the base of the machine during high production runs.

The HTG features a new easy-to-use Siemens PLC touch-screen control system with zero shutoff, feed pressure control, cross hatch angle calculator and a joystick to allow the operator to move the honing tool over the stroke length. The new control system features complex software to maximise process efficiency in the background while providing easy-to-use, intuitive touch-screen operation.

The power of the hydraulic system is controlled with precision, enabling better control for tough parts such as blind bores and shoulders. A load meter enables detection of tight bore conditions, and the bore profile is included on the display. Other features designed to increase productivity include feed system soft start, and integral load meter and recommended settings based on part dimensions and material.

The HTG series

Sunnen Products Company – USA
Fax: +1 314 781 2268
Email: sales@sunnen.com
Website: www.sunnen.com

New and second hand machinery

EUROMAQUINA is committed to the steel processing industry, focusing on sheet, profiles and tubes, and bars. The company has supplied new and used machinery, and also the handling and integration with its own engineering and service, in more than 25 countries.

The main special feature of Euromaquina is the combination of its own workshop for assembling and revamping machines and the representation of leading machine manufacturers. The company is more than an agent and more than a machine dealer: it has the back-up from its partners for upgrading and spares, and can revamp – mechanically and electrically – first class European machinery. The company also offers set-up assistance with its service team, and the design of foundation drawings, layouts and modular developments.

Euromaquina's wide range of machinery includes: for sheet – slitting lines, CTLs, levellers, plasma and laser cut; for profiles and tubes – profiling lines, tube mills and revamped tube mill components (uncoiler, welder, cut-off, packaging machine); finishing lines – straightening, bevelling; and for bars – finishing bar lines (peeling, polishing).

The company has also developed the following products and services: modular and customised handling devices (entry tables, roll-ways, outlet cradles, storage systems); revamping or integration projects; and upgrading and automation of used machinery (straightening, peeling).

Euromaquina SA – Spain
Email: comercial@euromaquina.com
Website: www.euromaquina.com

Measurement of round and flat profiles

FOR the online measurement of flat and round profiles in hose and tube extrusion lines Sikora offers the Laser Series 2000 Profil. The gauge heads provide accurate measurements of the height and width, even when the profile twists by ±5°. The technological background of the devices is a state-of-the-art CCD-line sensor technology, combined with laser diodes as light sources and an intelligent powerful software.

The outstanding feature of the non-contact measuring technology is the extremely high single value precision, which is an important aspect for the calculation of the standard deviation. The short exposure time assures reliable readings at all common line speeds. Product vibrations have no influence on the measurement. A benefit of this technology is that no guide rollers are needed to dampen frequency and amplitude of vibration.

A special feature of the systems is the swivelling gauge head that can be easily moved up out of the extrusion line. The measuring axes are arranged in such a way that the gauge is open at the bottom so that it prevents dirt and water from falling into the measuring area.

The gauge heads of the Laser Series 2000 Profil have no moving parts, which results in an almost unlimited operating time. The 'mean time between failures' – the statistical average time after which a device of that series shows a repairable defect – is 15 years.

The devices also do not require calibration or routine maintenance.

Sikora AG – Germany
Fax: +49 421 4890090
Email: sales@sikora.net
Website: www.sikora.net

The Laser Series 2030 Profil

Replaceable carbide tip saw blade

LINSINGER produces sawing and milling technology and has recently unveiled the new LINCUT® replaceable carbide tip saw blade. Linsinger said it has made another technical break-through: screw-on cutting tips made of coated carbide metal, which are very easy to change, and revolutionise the cutting of steel billets – which the company said are a much more economic solution than the old conventional brazed saw blades.

The essential hallmark of the patented LINCUT System is that the carbide inserts are not brazed but screwed on the base body of the saw blade. So, if required, the inserts can be easily changed by the sawing machine operator. Linsinger has even developed a complete tool changing system, from the screwdriver up to the transport carriage to keep the changeover work quick and simple. The special screws, which fix the inserts on the base body, have also been purpose engineered by Linsinger.

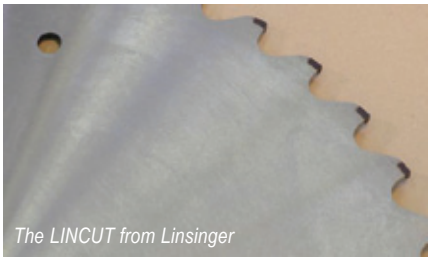
It is now possible for the operator to quickly and cheaply replace worn and broken saw teeth directly on or at the sawing machine. The old cumbersome method of dismounting the conventional billet saw blade, transporting it to the resharpening shop for repair and resharpening is now obsolete. This means less machine idle time and higher availability. The more stable LINCUT blade allows the cutting capacity to be increased by 30%. LINCUT reduces simultaneously resharpening, transportation, storage and operating costs.

Further points that make LINCUT attractive are that the carbide tip coating greatly enhances lifetime, and the saw blade body is more robust. One saw blade body can be re-fitted onto the sawing machine up to 60 times. Altogether the lifetime of LINCUT tools is up to four times higher than the brazed saw blades for standard steels. For especially tough steels, LINCUT's lifetime advantage is even greater.

The rail-wheel example has large Linsinger inclined bed circular sawing machines producing full capacity for over a year with LINCUT replaceable carbide tip saw blades. That totals an impressive 65,000 cuts with a 500mm diameter material, and an overall trouble-free cutting surface of 12,800m². All five sawing machines require just one operator, who also replaces the carbide tips. The example illustrates the possible savings with LINCUT® technology: with five machines, conventional saw blades and 3-shift operation, 170 saw blades have to be repaired every fortnight. Total transportation weight 23 tons net = one truckload to the blade repair centre. With LINCUT technology one small postal package of replaceable carbide tips is sufficient.

LINCUT replaceable carbide tip saw blades are available with diameters from 1,000 to 2,500mm exclusively for Linsinger sawing machines. The combination of machines and tooling from a single, reliable source is the competitive trump card exclusively available to Linsinger customers, who benefit from Linsinger's sawing technology founded on the world's largest sawing machine manufacturer Wagner Germany. Linsinger now extends this role as the number one global player in the field.

The inclined bed circular sawing machines type KSS, available exclusively from Linsinger, have already been mentioned in connection with LINCUT. The new generation of KSS inclined bed sawing machines combine all the benefits of vertical and horizontal sawing: The KSS 3-point clamping system ensures more secure clamping while allowing for greater material deviations. Cutting forces are directed into the foundations, the sawing machine is more rigid and the chips flow straight down to the conveyor. The 45° inclined bed circular sawing machine is especially suitable for large billet diameters of up to 780mm, and allows blade costs to fall below €2 per cut. The inclined bed circular sawing



The LINCUT from Linsinger

machines are the ideal solution for a wide range of applications, including steel and tube mills, forging plants, rail-wheel manufacturers and automobile suppliers. All the leading names can be found on Linsinger's customer reference list. For example, one leading automobile supplier is now benefitting from over 20 inclined bed circular sawing machines from the company.

A leading customer originating from India has ordered eight Linsinger sawing machines for one of the largest tube mills in the Gulf. A further 13 large carbide tip circular sawing machines are now being installed in a Brazilian tube mill. Almost 60 machines are now operating in Russia, where Linsinger is the clear favourite.

LINCUT combined with inclined bed circular sawing machines is now recognised as a "must have" for Linsinger customers to maintain their own competitive advantage.

Linsinger also reports that new sawing technology developments are proving successful in ongoing trials. Linsinger CEO Mr Hans Knoll said: "Groundbreaking sawing machine developments are already exceeding expectations under production conditions. In close cooperation with our customers, Linsinger continues to develop solutions that offer the deciding competitive advantage to customers. Linsinger's successful relationships with customers are founded on comprehensive customer service throughout the extensive lifetime of the machine."

Linsinger – Austria
Website: www.linsinger.com

Connections for offshore operation

SPECIALISTS from TMK, a global producer of pipes for the oil and gas industry, took part in lowering a tubing string with premium-class threaded connections into a well more than 2.5km deep, situated on Lukoil's Yury Korchagin oil deposit in the Caspian Sea.

The pipes were produced at TMK's Sinarsky Pipe Plant, and the finishing threading operations were carried out at the TMK-Kaztrubprom manufacturing facility.

After the running-in, the tubing string was subjected to an air-tightness test pressure of 200 atmospheres for 30 minutes. During the testing, none of the TMK pipes was rejected as defective by the customer.

TMK – Russia
Website: www.tmk-group.com

API standards with seam annealing

EMMEDI seam annealing equipment is based on IGBT technology, and it normalises the welding zone (which has a modified metallurgic structure, like grain coarsening) generated during the induction welding process in order to comply with the American Petroleum Institute (API) standards and American Society for Testing and Materials (ASTM) requirements.

The metallurgical modified area named Heat Affected Zone (HAZ) can generate failures in flattening and flaring tests, if it is not treated correctly. Therefore, the HAZ needs to be normalised in order to remove the unwanted martensite and thus to regenerate the metallurgic structure of that area.

Emmedi's new seam annealing equipment is furnished with inductors with a 40mm width including the new flux-concentrators that ensure performance (process temperature 950 to 980°C at 1 to 3kHz as typical working frequency).

In addition, the manual or automatic seam tracking system keeps on track the inductor on the HAZ in tilted conditions (±15° respect the vertical axis) of the bonding line, and the smart process control system enables control of both equipment and process.

The smart control desk is equipped with a touch screen industrial PC from where operators can download production data and store recipes. The seam annealing equipment also features pyrometers at each seam head, which are the process temperature/power guards of the medium frequency IGBT converters. The pyrometers are connected to converters by the Proportional-Integral-Derivative Controller (PIDC) feature, so the process is always guaranteed.The analogic signal coming from the pyrometer (which reads the temperature of the pipe) is compared to the previous value read-and-stored by the specific software of the PLC, which determines if there is an incremental or decremental tendency of the temperature of the pipe.

The PLC determines, through the PIDC analysis, an increment or decrement of the discrete predeterminate values of the MF voltage/power of the converter and it takes a voltage/power correction of the MF in order to guarantee the process temperature.

If the HAZ of the pipe cannot reach the process temperature within the set range, the PIDC stops production only after several attempts of correcting the MF voltage/power.

Saet Group – Italy
Fax: +39 011 99 74 328
Email: info@saetgroup.com
Website: www.saetgroup.com

Continuous filament winding lines

VEM SpA, an ISO 9001 certified company through the British Standards Institution (BSI), has become a world leader in the supply of innovative continuous winding technology and engineering services, specialising in the continuous filament winding of GRP/GRE pipes.

VEM focuses not only on aspects which ensure the highest level of quality and competitiveness for its clients in terms of finished product, but also on technology which withstands the test of time. In so doing, they are able to overcome current and future environmental impact limitations.

VEM SpA's constant investment in R&D lately has lead to innovations in areas such as: styrene emission control, reduction and recovery, raw material and finished product waste cutback, recycling and reduction in energy consumption.

Some of VEM SpA's innovative applications in pipeline manufacturing are: online pipe diameter measurement device, innovation in mass flow meters and temperature control system of resin and sand, sand and resin premixing system and IR curing stations with optimised wavelengths.

The range of services supplied by VEM SpA covers all phases of an industrial execution, from the system analysis to the engineering, up to the construction and start-up on site. VEM offers theoretical and practical training to the customer's personnel and after-sale skilled assistance, making VEM Spa one of the most competitive companies operating in the field of GRP production plants.

VEM SpA – Italy
Website: www.vem.eu

VEM's continuous winding technology

High-tech for tube, bars and wire straightening

VIOLI Srl specialises in the design and production of industrial machinery dedicated to the manufacturing of tubes and wires, typically used in the processes of drawing, winding, straightening and cutting.

Founded in 1992, Violi Srl offers a range of comprehensive and reliable straightening machines able to process cold and hot metal profiles. The full line includes equipment for straightening tubes or bars made of steel or other metals having a circular, cross or complex profile.

The MRT Series for tubes and bars is equipped with straightening groups consisting of hyperbolic pairs of rollers obliquely mounted and having an inclination opposed to each pair. The orientation of the axes, combined with the hyperbolic geometry of the rollers, allows the profile to rotate forwards. All the rollers are mounted on motorised and independent supports flowing within bushings that allow the operator to modify the height and the angle of the system.

Acting on the vertical axis, it is possible to adapt the straightening machine to different diameters and to correct the line of the advancement of the profile in order to create a process of metal stressing and to get products perfectly straight. Two motors with inverter and switch to reverse the direction of the motion allow the operator to control and adjust the speed of advancement of the profiles under process. The MRT line includes three models with different capacities:

MRP60D straightening machine for complex profiles

MRT5 for tubes and bars with diameter from 3 to 11mm; MRT5M for tubes and bars with diameter from 10 to 30mm; and MRT5M50 for tubes and bars with diameter from 25 to 50mm.

The range of Violi straightening machines is completed by the MRP Series, a family of products for square or rectangular profiles to process hot or cold drawn bars of different thicknesses and widths. The devices consist of motorised rollers adjustable in height, with decimal display system. Acting on the vertical axis, it is possible to correct the line of the advancement of the profile in order to get perfectly straight products. Simply replacing the traction rollers makes it possible to process almost all profiles included in the working range.

Violi Srl – Italy
Fax: +39 0575 815903
Email: sales@violimacchine.it
Website: www.violimacchine.it

Tube prepping machines

BSA Tube Runner Ltd, a UK-based tube and pipe bevelling equipment manufacturer, has announced the introduction of two new pneumatic tube prepping machines: the BSA Thunderbolt and the BSA Lightning.

These rugged, high powered machines can face, internal bevel, external bevel and weld remove on a wide range of materials including stainless steel and other exotic alloys. The Thunderbolt is designed to machine tube and pipe work from 12.5mm to 89mm outside diameter. The Lightning extends this range up to 115mm.

Drawing on its vast experience in the production of tube bevelling equipment BSA Tube Runner has engineered these machines to offer several improvements over their previous equivalents.

Completely new pneumatic motors are smaller and lighter without sacrificing power or torque and have the added benefit of being quieter in operation.

The machines are fitted with a hand wheel feed mechanism, which allows the skilled operator to 'balance' his cut to obtain the best possible finish in the minimum time.

BSA Tube Runner – UK
Website: www.tuberunner.co.uk

Girth weld scanning

AGR Field Operations, UK, has launched a new girth weld scanning system for pipelines. The TD Pipe-Runner was developed in collaboration with industry experts and provides a robust and versatile platform for overland pipeline ultrasonic inspection.

The scanner accommodates pipe diameters from 6" to flat, and its propulsion is fully automated but may also be manually propelled, if necessary. The TD Pipe-Runner is suitable for the zonal discrimination technique of weld evaluation using a combination of phased array and time of flight diffraction.

The TD Pipe-Runner utilises the latest AGR technology, using the TD Focus Scan with built in motor drive capability.

AGR Field Operations – UK
Fax: +44 1606 591253
Email: utsales@agr.com
Website: www.agr.com

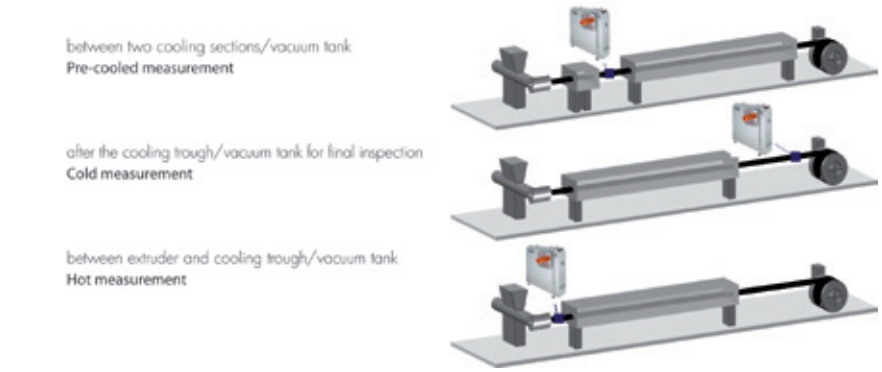
The TD Pipe-Runner

The X-RAY 6000 for measuring at different positions during extrusion

DURING the production of hoses and tubes it is necessary to measure quickly specific parameters such as wall thickness, eccentricity, inner and outer diameter and ovality with high accuracy, to analyse and to control to the nominal value. For this application Sikora has developed the X-RAY 6000, an online-X-ray measuring system for quality control in hose and tube extrusion lines. The X-RAY 6000 is used to increase quality of the end product and simultaneously to save material through avoidance of over wall thicknesses.

The X-RAY 6000 is installed for the measurement of the cold wall thickness after the cooling trough, between two cooling troughs or optionally at the beginning of the line to display hot measuring values directly after the extruder. It is suitable for diverse product diameters from 0.65 to 650mm. Single layer or multi layer hoses, aluminium composite tubes, pressure hoses with textile reinforcement, small or large diameter hoses made of PE, HDPE, PVC, EPR as well as foamed products, products made of EPDM, nylon, rubber, silicone are reliably measured by the X-RAY 6000.

The X-RAY 6000 can be installed in different production zones:



Moreover, it is suitable for quality control of medical or cosmetic tubes.

The used measuring principle is based on the latest X-ray technology, where the hose or tube is transilluminated by X-rays. The image of the product is directly projected on high-resolution X-ray image sensors and analysed. Directly from the X-ray image the measuring values of all product dimensions are calculated by means of specific algorithms. The measuring values are available within seconds. This technology allows for a continuous measurement and control of the line under consideration of the minimum values.

Outstanding features of the X-RAY 6000 are a high accuracy, which permanently ensures precise measuring values as well as a selectable measuring rate from 1 to 3Hz (optional 10, 100Hz). The device is equipped with XLL (eXtra-Long-Life) X-ray tubes for highest reliability and life time. Moreover, the system has a universal power supply, which covers all common

The X-RAY 6000 measures for example the cold wall thickness when installed after the cooling trough

supply voltages and frequencies. Even in regions with unstable mains supply precise measuring values are continuously achieved. The X-RAY 6000 product range offers a variety of 2-axis models for product diameter from 0.65 to 650mm.

Besides 2-axis measuring devices Sikora offers the 3-axis-measuring system X-RAY 6070 TRIAX. The X-ray device is specifically tailored to the requirements during the manufacture of composite tubes. It measures the wall thickness and ovality at six points and detects also faults on the product surface as well as on the inner tube. Even small, punctual faults are reliably detected with a measuring rate of up to 100Hz. The X-RAY 6000 provides a serial interface for the Sikora-display and control device Ecocontrol 6000 as well as a diagnosis interface. With the Ecocontrol 6000 there are additional device options available such as the automatic control, Profibus-DP, NetDDE, OPC, statistics and evaluation as well as the connection of a report printer.

Sikora AG – Germany
Fax: +49 421 489 0090
Email: sales@sikora.net
Website: www.sikora.net

Complete seamless pipe production system

TAIYUAN Heavy Machinery Group (TZ) was the first large-scale and innovative heavy machinery enterprise designed and built entirely by Chinese technology and expertise. The company's complete seamless pipe production system is one of its major products.

Over 60 years of development, TZ has become a leading manufacturer of engineering hot rolling equipment, specialised processing lines and complete pipe production equipment. The company has created many original products that were granted technological patents.

In the last 30 years TZ has produced 50 different sets of pipe production equipment, and claims to have captured 70% of the seamless pipe machinery market in China, as well as entering into the international market.

TZ's complete seamless pipe production lines, such as the 3-roll hot rolling line, the 2-roll high accuracy hot rolling line, the TCM continuous hot rolling line and the big calibre seamless pipe production line, have become a popular product series. They have catered for requirements from different clients by allowing for a variety of types and parameters of use.

TZ's complete seamless pipe production line can produce pipes of different steel grades in diameters from 48.3 to 1,200mm, with thickness from 4.83 to 100mm, which meets purposes such as oil pipes, energy transmission pipes, high pressure boiler pipes and nuclear power pipes.

Taiyuan Heavy Industry Co Ltd – China
Fax: +86 351 6367005
Email: janiceemail@163.com

New flexible extrusion lines designed for the modern squeeze tube market

BOSTON Matthews has announced the launch of the new range of medium-speed 'squeeze tube' extrusion lines.

The medium-speed line forms part of range of extrusion lines designed by Boston Matthews specifically for the production of thin walled polyethylene tubes used within the packaging industry.

The capability to extrude a wide range of tube sizes, configurations (1,2,3,4,5 layers) and polymer blends and to quickly change from one tube specification to another allows the squeeze tube manufacturer to react quickly in order to meet with the ever changing demands of their customers.

The new lines have been developed by Boston Matthews through a very close association with a large number of squeeze-tube manufacturers from around the world since the successful introduction of its high speed-squeeze tube lines six year ago.

Observing that the ever changing consumer markets have placed greater pressures and demands on tube makers to manufacture a more diverse range of tube sizes, specifications, blends and colours, Boston Matthews has reacted to this by developing the medium-speed line. Boston Matthews sales director Simon Brookes said: "We are always listening to our customers and constantly monitoring market trends. This enables us to develop and design our equipment to meet with the specific requirements and demands of today's markets and also for the future."

The medium speed line has been extremely well received by tube manufacturers around the world with orders successfully completed and in full production within several of the industry's leading tube producers. Interest at the K'2010 was also very high with tube manufacturers specifically visiting the Boston Matthews stand to discuss their extrusion requirements.

Flexibility and the importance of quick change-over have been designed into every element of the line. The die head has the ability to change colour or polymer faster; to produce different tube layer configurations without adjustment; simple disassembly on the extrusion line eliminating the need for heavy lifting equipment; and shorter flow passages for higher quality production.

The die head incorporates a combination of technologies to ensure the successful processing of the wide range of blends, masterbatches and additives associated with squeeze tube production takes place in order to achieve a high standard of surface finish which is essential for the tube decorating operation.

These advancements in die head technology are in combination with the development of calibration, cooling and cutting technologies that provide the processor with more flexibility whilst making improvements in production quality.

The tube calibration system has been designed for easy, damage-free removal incorporating quick and easy size change and also for quick and easy cleaning when required.

The unit is designed in such as way so that identification of a tube scratch/contamination issue can be quickly identified and recertified without involving heavy lifting equipment which can potentially cause further damage.

Line control and operation is made simple via the SMART 15" colour touch-screen operating system. Features include automatic line start-up; recipe storage; constant performance monitoring and diagnostics, language selection, process data access, and password protection.

Boston Matthews – USA
Fax: +44 1905 763101
Website: www.bostonmatthews.com

Special tube cold bending machines for the production of piping systems

SCHWARZE-ROBITEC, Germany, a manufacturer of tube cold bending machines, has recently sold several special bending machines for the production of piping systems to different countries.

For the production of tight radii tube serpentines and tube systems for the boiler and power station manufacturers the production of high capacity boilers in smaller dimensions was possible. This can be used in the most modern (fossil fuelled and nuclear) new power stations, or to refurbish existing ones.

The machines with PC CNC control for highly accurate movements of all axes can be equipped with different special options, for example with flip-over table for synchronous rotation of large flat serpentines. The control features and the use of up to eight different boosting pressure curves in one program also satisfies the requirement for different bending angles in different materials in one product or serpentine. The bending results comply with the latest EN 12952-5 European Standard for water-tube boilers and auxiliary installations approved in 2000.

The shipbuilding market is always looking for producing piping with a reduction in tool change times. Schwarze-Robitec anticipated this several years ago by developing machines up to Ø 219.1 x 12.7mm in multi-stack design for bending steel, stainless steel, copper, and CuNiFe tubes, as well as flanged and flared tubes and pipes. No more adjustments must be done before starting a new bending operation with a different tube size. With the "SpringMatic" function the spring back can be automatically measured and compensated.

A permanent cycle of innovations ensures continuous technical progress and proves the engineering potential of Schwarze-Robitec. The latest PC CNC control offers all kind of features to enter the necessary values, either manually or from a database, to obtain highest quality products in the shortest possible time.

Schwarze-Robitec GmbH – Germany
Email: sales@sch-r.com
Website: www.sch-r.com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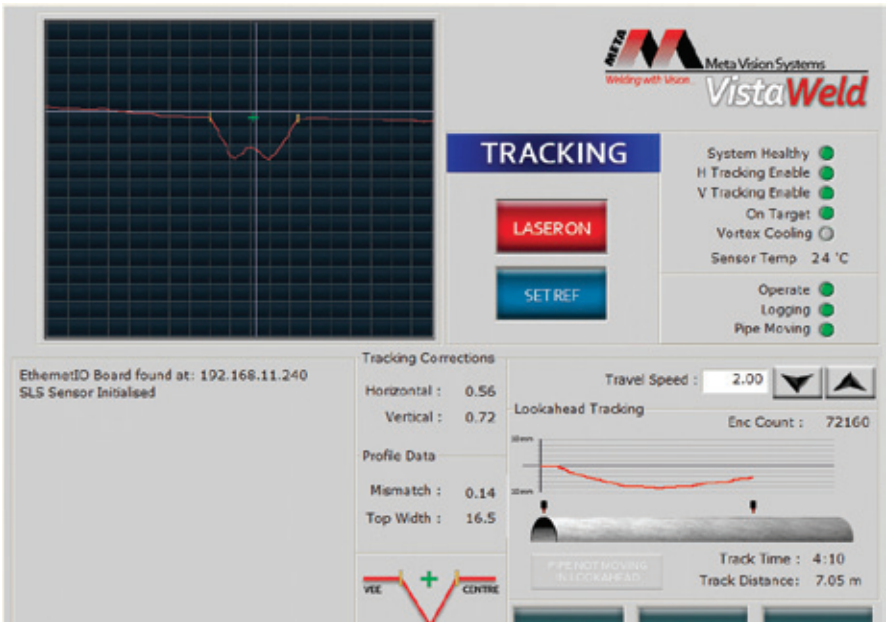
STCTOOL@aol.com

Laser guidance system for automated welding in longitudinal pipe mills

META Vision, a supplier of optical seam tracking systems for tube and pipe mills, has announced a new version of its VistaWeld system aimed specifically at increasing the speed and accuracy of submerged arc welding (SAW) in longitudinal pipe mills.

Based on a review of typical longitudinal SAW mill operations involving tack and outside diameter (OD) welding, the new system addresses some well-known issues. In particular, the latest VistaWeld includes accurate, non-contact tracking of the true root position and built-in look-ahead compensation as standard features.

The system harnesses the power of Meta's recently introduced smart laser sensor (SLS) technology. It integrates a high resolution, high performance SLS sensor head within an updated VistaWeld architecture based on an Ethernet backbone and Meta's new, flexible Ethernet IO board. The combination has made it feasible to include the desired features while reducing system complexity and improving ease of use.



The screen of Meta's new SLS-based VistaWeld system for longitudinal SAW pipe mills

TruRoot tracking finds the actual root of the joint for OD SAW, even though the root may be covered by the tack weld. The software uses the higher resolution and quality of the SLS sensor, together with image analysis algorithms from Meta's well-known multipass welding system, to detect the edges of the tack weld in the bottom of the joint.

From this and the overall joint profile, the true root position can be computed. Tracking the actual root derived in this way improves penetration for the OD weld itself while also improving ID/OD weld interpenetration. OD SAW on longitudinal pipe mills typically uses a multi-torch configuration with as many as five or six individual wires welding in one pool. The weld head is therefore large, taking into account the number of torches and need for flux delivery and recovery.

As a result, the laser sensor has to be positioned a relatively large distance in front of the weld area. This so-called look-ahead distance can be 250mm or more. Depending on the shape of the pipe, tracking inaccuracies can result if simple algorithms are used.

The standard tracking feature within the new VistaWeld uses the look-ahead distance, welding speed and other information to determine the correct position for the welding head at all points along the pipe. It is particularly beneficial if the pipe forming method has given rise to geometric distortion, as is often the case. Tests on one series of longitudinal pipes showed that, in some cases, look-ahead tracking was four times more accurate than conventional tracking, significantly enhancing production by improving weld quality and minimising defects.

For example, the superior vertical tracking accuracy maintains the correct stickout (distance from contact tip to work) over the complete length of the pipe, improving weld quality and eliminating weld defects. The improvement in horizontal axis tracking precision combines well with the TruRoot feature to give a double accuracy benefit.

Meta Vision Systems Ltd – UK
Fax: +44 1865 887901
Email: sales@meta-mvs.com
Website: www.meta-mvs.com

New linear cage forming

THE linear cage forming by Olimpia80 is the technical answer to the main requirements of today's welded tube market and allows rapid production, minimised stock of finished product and cost reduction. This is mainly achieved by maximising flexibility, reduction of set up time and the reduction of roller costs.

The innovation consists in the possibility of producing any tube size, included in the mill range, without any roll change and in few minutes with an extreme reduction of set up time.

Advanced linear cage forming (LCF) is the result of many years of experience and development work and can be applied to the production of rounds and sections. For production of round pipes the new LCF has been applied to complete forming section of mill, including fin pass stands. It is a unique compact system consisting of 11 stations: six stations operating as breakdowns, two stations operating as pre-fin passes, and three stations operating as final fin passes. An almost complete closure of the tube (360 degrees) is achieved.

Olimpia80 Srl – Italy
Email: olimpia@olimpia80.com
Website: www.olimpia80.com

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Tube processing in hydraulics systems

SPECIAL solutions are always in demand when special requirements must be met, such as in tubing systems for hydraulics. Bends are allowed to be only slightly ovalised and tubes are usually manufactured in small batches. Accurate fit ensures safe, leak-free sealing systems and optimal cleanness ensures a functioning system. Manufacturer's instructions for connecting systems have to be followed accurately. New, cost-effective solutions for these challenges are developed by transfluid Maschinenbau GmbH.

The specially developed software T-control provides transfluid's best conditions for efficient tube processing. The customised software allows the user to import co-ordinates and process data directly from the respective CAD program online and start the process.

In the teamwork with the quick-changing system for tooling transfluid bending machines (T-bend) allow short tool changing times in the lower one-digit minute area. Besides, the excessive lengths which are needed – for example to be able to attach an end forming at the pipe – are automatically considered. From the outset gross contamination is avoided in the system and cuttings are made up to a pipe diameter of 30mm exactly and chipless.

The transfluid Maschinenbau benders (above and below)

The further procedure depends on the choice of the particular connection system. If cutting rings are used they can be mounted easily while the CNC bending machine bends the following tube. The transfluid cutting ring pre-assembly machines are constructed so compactly that all bending geometries can be processed.

"If as a connection system tube end formings are used, it makes sense to start with forming on both sides of the straight tubes before the bending process. That means first forming and then bending," explained transfluid managing director Gerd Nöker.

Here transfluid sees significant benefits, because these end forming machines are less compact and require longer clamping area. "When forming first for the forming machines clamping jaws without saw teeth can be used. The coating of the tubes will not be damaged in this way," said Mr Nöker.

The difference of the bending machines is in the drives. In general, servo-electric or hydraulic drives are used. transfluid also offers a special feature: power-controlled variable-speed hydraulic drives. Here constant pumps are used in conjunction with variable speed motors. The volume flow can be adjusted for each cylinder. This reduces the energy consumption, the hydraulic dissipated power, which is introduced into the oil, and the noise level dramatically. This type of drive is highly efficient and reduces life-cycle costs significantly.

To be able to bend already formed tubes as well as straight tubes, the bending tools for transfluid bending machines are equipped with a double clamping system, for the collets as well as for the bending tools. With this they are able to take up either formed tubes, or the straight parts as required.

transfluid Maschinenbau GmbH –
Germany
Email: info@transfluid.de
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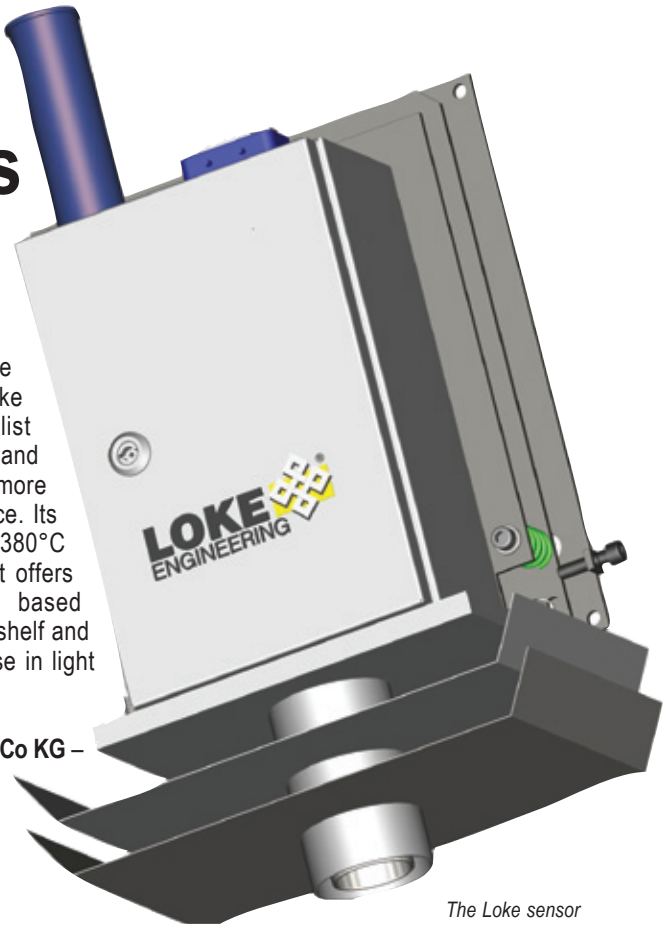
Length and speed measuring on hot tubes

LOKE's new laser Doppler LMC-L Series offers higher accuracy, speed and lifetime with an more attractive price. The series performs up to 25,000 real measurements per second, which it states is faster than other similar devices on the market. All major interfaces (such Analogue, Pulse, ProfiBus, DeviceNet, EtherNet IP) are available and integrated in the sensor. In addition, it is also possible to log data and configure the sensor via a Bluetooth connection.

A special stainless steel housing equipped with combined technologies of water and pressured air cooling ensures an optimum laser lifetime in very hot environments. The housings also include a spring cushioned fine adjustment on all necessary axes in order to satisfy the installation alignment requirements, which guarantees the laser Doppler measuring accuracy. In February 2010, these unique features convinced the famous Spanish seamless tube manufacturer Tubus Reunidos Industrial, SLU to order the system for hot tube length measurement. Loke Engineering is a specialist in contactless dimension and speed measurement with more than 10 years of experience. Its gauges can work up to 1,380°C surface temperature and it offers a wide range of laser based sensors as well as off-the-shelf and customised systems for use in light and heavy industry.

Loke Engineering GmbH & Co KG – Germany
Fax: +49 6227 822044
Email: udo.kempf@loke.de
Website: www.loke-engineering.com



The Loke sensor

“Based on our experience with T&H mills, we expect to see increased production, profitability and competitiveness.”

- Joao Groth, Director of Production

T&H Lemont

An Inductotherm Group Company

When Joao Groth, Director of Production at Brazil’s Aços Groth needed a new mill, he interviewed five companies before choosing the WU40-11 High Frequency Structural Mill from T&H Lemont. “I was impressed that the T&H mill not only had the capabilities I was looking for, but also included the tooling,” said Joao. The mill significantly increases their competitiveness, making Groth one of only six companies in Brazil that can produce tubes up to 6” in diameter and ¼” thick. Established in 1987, Aços Groth is a major producer of carbon steel tube products in Brazil and parent company of Brazil’s National Tubes. Now in the process of purchasing WU20M-11 High Frequency Mechanical Mill for National Tubes, Joao said, “Based on our experience with T&H mills, we expect to see increased production, profitability and competitiveness.”

For more information, call 708-482-1800 or visit www.thlemont.com, fax 708-482-1802 or email: wheller@thlemont.com

T&H Lemont
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Countryside, IL 60525 USA

INDUCTOTHERM® GROUP

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Facing competitive challenges with expert process fluid technologies

TODAY'S tube and pipe producers face increased competition, price pressures, and increasing demands for higher quality and productivity. At the same time, they must protect worker health and safety, meet environmental standards and ultimately return a strong financial performance.

Working with Quaker Chemical, the leading expert in process fluids and speciality chemicals, can make a significant difference in not only meeting marketplace expectations, but exceeding them by keeping up to date with trends in new materials, technologies, and global markets.

Quaker delivers a unique combination of process fluids technologies and in-depth process expertise. It is uniquely positioned to help customers by:

Creating custom solutions that can deliver real advantages to the bottom line.

Significantly improving the current process configuration and processes.

Integrating the entire process – from casting to final coating – to maximise productivity and ensure chemical compatibility throughout.

Designing, selecting, and installing equipment upgrades for improved application of process fluids.

Meeting increasingly tough environmental standards and protecting employees' health and safety.

Collecting data on processes that will benefit the entire organisation and continue to improve operations.

Quaker is the only global supplier capable of providing all of the speciality fluids required for tube and pipe processing, with manufacturing and R&D facilities in 13 countries. It has products and expertise at every step – cleaning, forming, cooling, and coating – with technical support staff on the ground in every industrialised region of the world.

Because it offers this comprehensive, "front to back" approach, Quaker believes that it can help its customers to quickly identify and solve any manufacturing challenges – and achieve world-class productivity and performance. Quaker also offers a line of corrosion preventives specifically formulated to meet current and future Southern California Air Quality Management District (SCAQMD) VOC requirements.

Quaker Chemical – USA
Website: www.quakerchem.com

Quaker Chemical's headquarters

New line of material handling magnets

INDUSTRIAL Magnetics, Inc (IMI) has expanded its patented line of magnetic, Cylinder Actuated Transporters® (TPCA) for use in place of vacuum cups or grippers when lifting and moving stamped, forged and hydro-formed parts, tubes, castings or complete parts assemblies in manual or automated applications.

Magnetic Transporters® are designed to increase production, provide material handling safety and minimise shop air cost, while allowing effective operation in any orientation and the ability to grasp odd shaped or formed parts.

With the additional models, IMI can now provide a magnetic material handling solution for applications ranging from 26 ga to ¾" thick steel, with weights from 5 to 689lb, depending on the size and shape of the part.

Offering a slim profile, instantaneous pickup and release, and requiring no electricity, the Transporter Cylinder Actuated Magnets are suitable for lifting in and out of totes, bins, or other hard to manoeuver applications such as components for automotive, lawn/farm equipment, pumps, compressors or motors and fan assemblies.

Industrial Magnetics Inc – USA
Email: imi@magnetics.com
Website: www.magnetics.com

Pipe welding plant for Shandong Shengli

WITHIN SMS Meer, PWS GmbH is responsible for special pipe machines and offers plants that are among the most modern in the world.

For Shandong Shengli Steel Pipe Company, Rizhao City, Shandong Province, China, PWS is to supply a two-stage spiral pipe forming and welding plant with particularly high energy efficiency. After completion of the plant in September 2011, Shandong Shengli will produce 240,000 tons of spiral-welded pipes per year, which are mainly used for natural gas and petroleum pipelines.

The pipes will have a diameter of up to 64" from high-alloy steels. PWS supplies an integrated plant consisting of a spiral pipe forming and tack-welding machine for forming and pre-welding of hot-rolled steel strip and downline finish-welding stands. In the future, Shandong Shengli will thus be able to produce high-quality pipes with diameters of 24 to 64" from high-alloy steels.

Thanks to the technology from PWS the degree of energy yield during welding has reached a new record level. Michael Stark, managing director of PWS, said: "We believe in welding current sources without transformers and an advanced process control by power electronics. In this way, we achieve efficiencies of more than 90% resulting in an energy saving of more than 30% compared to the older technology."

Another benefit of modern technology: Shandong Shengli is able to increase the welding speed without compromising stability of the welding process. The pipes are used among others for the nearby Shengli oilfield, the second-largest petroleum producing area in China.

Shengli Oil & Gas Pipe Holdings Limited is one of the largest petroleum and natural gas pipeline manufacturers in China. The company is one of the major producers of spiral submerged arc welded pipe for PetroChina Group and Sinopec Group. Shengli has been producing such pipes for 35 years. The production facilities are located in Zibo City, Dezhou City and Rizhao City in Shandong Province, China.

PWS GmbH – Germany
Email: w.zimmermann@pws-gmbh.info
Website: www.pws-gmbh.info

Orbital welding

GULLCO Pipe Kat® automated pipe welding system with integrated wire feeder unit incorporates 40 IPM welding carriage design with quick action mounting.

The carriage is equipped with a high speed return feature for faster repositioning of the carriage. The Pipe Kat also comes equipped with a linear oscillator with adjustable weave width and weld joint centreline adjustment.

The system comes with a main control box with 25ft (7,620mm) umbilical, wire feed spool capacity of 10lb (4.5kg), with a maximum wire speed of 35-633 IPM (89-226 cm/min) and a wire size range of 0.8 to 2mm.

Gullco Pipe Kat – Canada
Website: www.gullco.com

Roll-Kraft releases time and cost savings data for central lube systems

TUBE, pipe and roll forming producers know that manual lubrication costs them a great deal of time and money. Data recently calculated by Roll-Kraft shows just how costly it can be to prolong a switch to a central lubricating system.

Mill lubrication should be part of the regular maintenance schedule and occur after every 100 hours of operation.

A mill that is operational 40 hours a week requires approximately 21 mill lubrications a year for optimal service.

Each manual lubrication averages 3½ hours to complete, for a total of 73½ hours per year. Using a figure of $750 per hour to operate a mill, manual lubrication can cost up to $55,125 per year.

To remove the burden of manual mill lubrications, Roll-Kraft has designed a central lube system. Securely mounted along side the mill, the system dispenses small amounts of lubricant, maintaining adequate coverage at all times. Flow sensors can give added protection by monitoring the proper release of the lubricant. Studies show that an automated lubrication system is by far superior to the antiquated inconsistency of manual application. Increased bearing life, ease of mind and a quick return on investment are all important considerations.

Roll-Kraft also provides other tube and pipe mill services and roll forming services to aid in training personnel to consistently follow the steps of maintaining the mill. On-site seminars are often preferred as the most convenient way to educate the entire team. Proper training can provide considerable cost savings by avoiding down time associated with repairs and lost production. Robert Sladky, VP tube mill engineering, is the chief instructor of on-site seminars. He is known throughout the industry and has been awarded the TPA Industry Education Activities Award for his experience and expertise.

Roll-Kraft's headquaters in the US

Roll-Kraft – USA
Fax: +1 440 205 3110
Website: www.roll-kraft.com

Gedik launched the first submerged arc welding flux production line in Turkey

GEDIK Welding has become the first company in Turkey able to produce and supply submerged arc welding flux. The trial of the new product line completed in the beginning of November 2010 and GeKa Flux branded submerged arc welding flux was put on the Turkish market successfully.

The company, which aims to meet the demand for this product in Turkey and in the international market, will triple its production capacity in 2011. For the time being, Gedik Welding is able to produce aluminate rutil, aluminate basic, fluorid basic and manganase silicate, for the hard facing sub arc wires and stainless steel sub arc wires fluxes with a capacity of 5000 tons/year. Gedik's R&D team continues to develop new products in order to meet customers' various needs of submerged arc welding flux.

Gedik Welding's CEO Dr Mustafa Koçak said: "As Gedik Welding, we structured our submerged arc welding flux production line in a way that will enable us to meet our customers' diverse needs. Our submerged arc welding flux production capacity is 5,000 tons/year and according to our plans, we will triple our capacity in 2011 and expand our export volume."

Dr Koçak added: "Gedik Welding's vision is to be a world trademark. In order to achieve this, we are developing new products and services in order to provide complete solutions to our customers. This new product is another step we took to achieve this goal."

By producing the fluxes, Gedik Welding is now able to provide "wire+flux" combination for various applications.

Gedik Welding
– Turkey
Email: gedik@gedik.com.tr
Website: www.gedikwelding.com

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We also supply second hand tube mills and related equipment

Advantages of FMS Solid State Welders

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Wireless detection and communication system for utility network piping

AT the Gastech conference in Amsterdam (21-24 March), RYB, the French leader in utility networks and piping, unveiled a solution that enables detection and communication for underground assets. Developed in collaboration with CEA-Leti, the unique RFID technology revolutionises safety, monitoring and maintenance for gas, energy and dangerous matter networks, reducing the risk of industrial accidents in these areas.

The risk of industrial accidents is a serious consideration in the gas and energy sectors, as well as for dangerous liquid transport in general. One of the critical aspects of these activities is related to the piping and underground networks used to carry various resources and matter. Numerous industrial accidents, sometimes with serious consequences, are directly caused by the involuntary cutting or breakage of poorly identified underground pipes. This situation is often due to incomplete network maps, or by the fact that techniques for locating pipes are complex and generally difficult to perform in the field.

In order to resolve this issue, RYB worked with CEA-Leti to develop a complete wireless detection and communication system for underground networks, named ELIOT® (equipment for localisation and identification by object technology).

Dedicated to detecting networks, the technology represents a breakthrough for monitoring and maintaining networks, as well as reducing industrial risks and costs related to networks that are broken. The system provides advanced traceability for underground networks, both for infrastructure resource management and maintenance.

The new generation of RFID technology developed by RYB and CEA-Leti, protected by international patents, offers the following features:

- Detection up to 1.5m underground, providing accuracy within a few centimetres
- Support for harsh network environments for detection, localisation and reading of information stored on a chip: networks covered by all types of ground (tar, sand, dirt, rocks, dry, wet, etc), or submerged underwater (such as in the water table)
- Instant feedback
- Information storage: detected network type (application), manufacturing date, installation date, serial number, diameter, nominal pressure, etc
- Tags with no power supply requirement, integrated directly in the fitting or pipe, or as standalone electronic markers
- A simple reading system with an adapted antenna, compatible with products available on the market
- A signal measured on the surface precisely describes the detected pipe, avoiding interference in case of multiple nearby networks

The new-generation RFID tags are integrated directly in piping or network parts using the patented process. Information specific to each type of piping is embedded onto each tag. Standalone markers can be used to identify existing underground works.

"We are pleased to have successfully met the technical challenge of developing this detection and autonomous communication technology, specifically adapted for piping and underground networks," commented Marc-Antoine Blin, general manager of RYB. "This solution is unique in the world today. This development effort required over three years of close collaboration with CEA-Leti, involving research on numerous potential options and over €1mn in investment. A new era has now arrived for underground network-related works. The ELIOT solution meets operator needs for gas and energy networks, as well as for the transport of dangerous matter in general, making it easier to monitor and maintain underground works and significantly reduce the risk of major industrial accidents in many sectors."

Tests were also performed on the GDF-Suez group's experimental platform. GDF-Suez provided expertise in terms of the major issues in the field, enabling RYB/CEA-Leti to properly adapt the technical solution to real-world operational requirements.

RYB SA – France
Fax: +33 4 76 93 53 01
Website: www.eliot-tech.com

Pipe cutting and bevelling innovations

PRESTIGE Industrial Pipework Equipment (PIPE) Ltd is a specialist supplier of pipework fabrication cutting and bevelling equipment. The company caters for any cutting and bevelling requirements, whether cold or hot cutting, for workshop or on-site environments.

Two of the company's most popular machine ranges are the split frame cutting and bevelling machines: the heavy duty steel frame 'supercutter' and the light-weight alloy body 'MCA Clamshell'. The machines are designed for the cold cutting and bevelling of pipe, where the use of a hot cutting method is prohibited or a machined bevel is required.

The split frame design enables the operator to mount the machine anywhere along a pipeline to cut and bevel the pipe simultaneously. Suitable for on-site work or in areas where there is restricted access to the pipe, due to their low profile design, once clamped on the pipe, the cut and bevel is produced by an inner rotating ring, housing cutting tools mounted in spring loaded toolboxes that follow the contour of the pipe to produce an accurate weld preparation.

Cutting tools are available to machine mild steel, stainless steel and exotic materials such as duplex and super-duplex. Machines are available with electric, pneumatic or hydraulic motors, with models available to cut from 1" to 60" pipe (larger sizes made to order), with all types of weld preparation achievable on wall thicknesses up to 60mm.

Other equipment that PIPE Ltd will have on show will include its extensive range of pipe jack stands and supports, pipe welding alignment clamps, and specialist pipe purging equipment.

PIPE Ltd – UK
Email: sales@pipe-ltd.com
Website: www.pipe-ltd.com

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Machinery for finishing and straightening tubes

CARTACCI Srl has been designing and building machinery for the finishing process of tubes – in particular straightening machines and draw benches – for more than 45 years.

Thanks to this experience in the manufacturing of single machines Cartacci Srl has increased its productive power and has supplied complete finishing lines for tubes.

Some of the finishing lines recently produced include a pointing machine, draw benches (from 80 tons up to 300 tons), ten rolls straightening machines (from 20mm as diameter, up to 273mm), multi-heads cutting lines, chamfering machines, services for testing, bundling machine including draining and weighing, strapping and protective coiler machines.

All the machines included in the line are completely automated and so require a limited number of operators. In fact, two complete lines, composed as described before, have been delivered and started: one for the production of cylinders, with diameter up to 235mm and one other for the production of shock absorbers, with diameters up to 70mm.

Cartacci's lines present innovative solutions, directed to limit the use of handling and intermediate storage, and to guarantee high production and high surface finishing – both of which help to limit the need for the manual intervention of operators. In addition Cartacci's lines are produced following a careful study of what is required: each machine included in the line is studied in a way that it can work in line with the others, or also on its own, giving the customer the possibility to work in an extremely versatile way.

For Cartacci Srl getting to manufacture complete finishing lines for tubes has represented the natural synthesis of the technical evolution that the company has followed during its history.

Cartacci Srl – Italy
Fax: +39 035 290514
Email: fabrizio.mamoli@cartacci.com
Website: www.cartacci.com

Cartacci's straightening machine

Uniflex presents new crimper HM 1200 for hoses and fittings

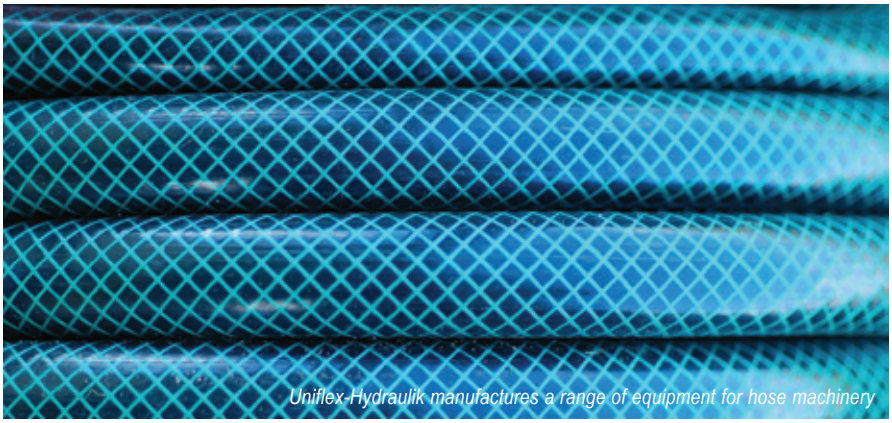
UNIFLEX-Hydraulik offers a comprehensive range of machinery for hose manufacturing. It recently unveiled the new industrial crimper type HM 1200. With a crimping power of 1,200 tons, it is especially suitable for crimping large and heavy industrial and hydraulic hoses, reinforcement bars, isolators and ropes, as well as being used for pipe forming.

The compact design of the HM 1200 hydraulic crimper is a development of the well-proven HM 660. Due to its higher crimping force, a variety of components can be crimped and/or formed even more easily. Good accessibility allows for uncomplicated loading within short time. The machine, its unit and control are separate modules so that the installation positions of these components may be selected in accordance with the relevant spatial conditions. The crimper has a standard control touch panel for operation. The integrated item memory can be used to store up to 1,000 records.

For HM 1200, too, Uniflex used its proven slide bearing plates on the crimping tool, which provides for a largely linear correlation with the pressure-power process. In addition, these specialised plates ensure an increase in the real crimping performance due to less friction, and hence prevent additional wear of the crimping tool. In general, a reduction in friction losses of up to 20 per cent will result in higher crimping power to the user's benefit. Moreover, the crimper operates without lubricants so that contamination of machine, work pieces and not least individuals is avoided.

The work piece to be processed may be deposited on the fixed "6 o'clock" dies without any risk. This type of assembly also supports an automated loading of the crimper. HM 1200 operates very quietly; its sound level amounts to just 69dBA.

Uniflex-Hydraulik – Germany
Website: www.uniflex.de



Uniflex-Hydraulik manufactures a range of equipment for hose machinery

TIG hot welding solutions for tubes

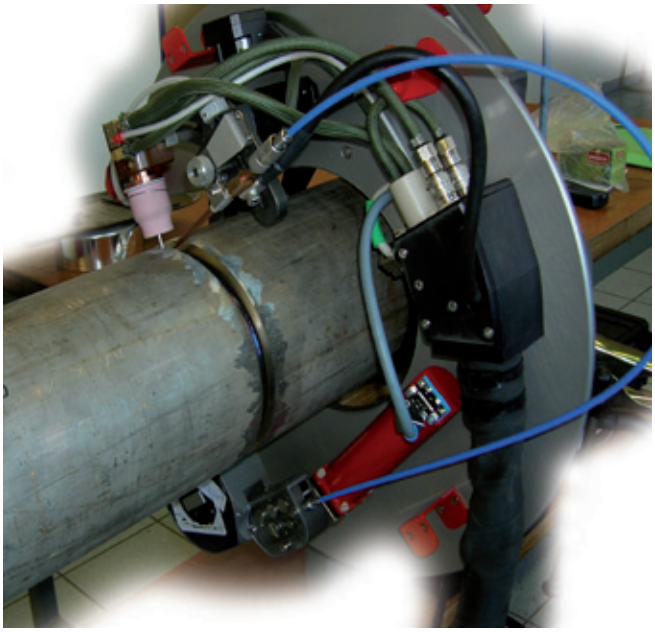
POLYSOUDE is renowned for its know-how in terms of TIG hot wire welding, especially in the fields of narrow gap welding and cladding solutions. It is fully committed to this leading edge technology and has continued developing the TIG hot wire welding process in a large number of diverse applications in numerous industrial sectors, such as petro chemistry, offshore and onshore (generally covered by the term 'process piping'), power generation (conventional and nuclear) and many more.

To introduce the benefits of the TIG hot wire process to a wider public, Polysoude has decided to tour the world in the true sense of the word in order to demonstrate these new applications to welding specialists. These demonstrations will take place in the United Kingdom, France, Scandinavia, Germany, Austria, Switzerland, Italy, the USA and Japan.

The tour will include presentations of the advantages of the TIG hot wire process compared to the TIG cold wire process; demonstration of dedicated equipment with Polycar 60 PLC carriage type welding head, dual video and monitoring system, MU IV 195 HW hot wire open type "grip-it" welding head and P6 HW power source; live welding demonstrations: carbon steel 168 x 12.5mm in 5G position with open angle J and V, as well as stainless steel 355 x 90mm in 2G position narrow gap.

Polysoude SAS – France
Fax: +33 2 4068 1188
Email: info@polysoude.com
Website: www.polysoude.com

Polysoude's hot wire welding machines (below and right)



Handling of delicate pipes

THE handling of long and thin stainless steel pipe is extremely difficult. This is the main reason why there are few companies who can supply a pipe transport system that ensures high process capability with no damage to the pipes.

Among these companies is Reika GmbH & Co KG, whose experience in the sector of finishing lines was demonstrated with the construction of a fully automated finishing line with integrated non-destructive testing line for Scandinavia's largest manufacturer of stainless steel pipes. The customer's intention is to use this line for the transport of high-grade stainless steel duplex pipes for heat exchangers with diameter of up to 25mm and length of up to 30m. These pipes need to be handled with utmost care, not only due to their dimensions but also because they are polished.

All automatic finishing lines made by Reika are highly specialised systems for a production that requires very little personnel. The special transport systems are used for longitudinal as well as cross transport, including numerous applications such as straightening, machining, pipe marking and various testing applications. Sophisticated material tracking systems ensure process capability and material identification.

This line has been designed by Reika to meet the specific requirements of the customer, for example by integrating special solutions in the areas of pipe return and batch assignment. The manufacturing of the entire line was carried out in only six months.

Reika's product range is comprehensive, especially in the sector of finishing lines. It includes finishing lines for hot rolled, cold pilgered and longitudinally welded tubes, hot rolled bars and precision bright bars. Depending on the customer's requirements the production steps of straightening, testing, parting, chamfering and bundling are integrated into the finishing lines. This also includes comprehensive services such as output maximisation due to optimising strategies or customised concepts. According to Reika's experience the optimisation of the individual pipe lengths by automatic flaw cutting and consideration of samples, tube ends and final lengths reduces the scrap by 2 to 3%.

Reika GmbH & Co KG – Germany
Fax: +49 2331 9690 36
Email: sabine.gerstkamp@reika.de
Website: www.reika.de

Induction heating

GH Induction Atmospheres has introduced a new series of 13 induction heating power supplies with a wide frequency range for increased flexibility. The SM Type Transithermic® power supplies cover 0.5 to 20kHz with 100 to 800kW output power; 100kW output is available over the extended frequency range of 20 to 150kHz. With up to 90% efficiency, high reliability, and easy-to-use digital control, the SM Type power supplies are suitable for both new installations and existing systems. "With the flexibility provided by the extended operating range, SM Type power supplies will be quite popular as replacement power sources for many existing industrial heat treating machines," commented GH IA general manager Steve Skewes.

The power supplies feature a modular design with plug-in power control cards. They utilise IGBT transistors and include a DCP (digital control panel) with built-in diagnostics and optional kW/sec monitoring. A series oscillating circuit offers high efficiency and easy load matching. GH Transithermic power supplies can operate at variable frequencies; the frequency is automatically coupled to the load in every application, within a wide range.

GH Electrotermia SA – Spain
Fax: +34 961 352 171
Email: ghgroup@ghe.es
Website: www.ghe.es

Spinform axis tube end profiles

HESS Industries Inc, USA, offers spinforming machines that produce eccentric and oblique tube end forms. This process consists of a clamped work piece and a rotating head containing forming rolls. To form a reduced end profile that is offset or eccentric from the tube's central axis, the clamp moves the workpiece towards the offset axis while the forming rolls reduce the end diameter.

The same method is used to produce an end profile that is at an oblique angle by driving the clamped work piece while the forming rolls move radially toward the planned oblique axis. Typical applications include automotive and truck exhaust components and catalytic converters where space is limited or restricted. Typical tube spinforming follows the centreline of the tube.

The spinforming process allows substrates such as gas, liquid or power filtration elements to be inserted in the tube and the end forms are spun down to attach to the flow tube. Spinforming eliminates the need to stamp and weld end forms reducing tooling and manufacturing cost while enhancing part quality. Tube spinforming technologies are currently being used in the automotive, HVAC, filtration, marine and other industries.

Hess also provides machine process development and prototyping services operations in the USA, Europe, China and India.

Hess Industries Inc – USA
Fax: +1 269 683 1775
Email: sheffer.rick@hessindustries.com
Website: www.hessindustries.com

Stainless steel strip accumulator from Italy

WITH the growing popularity of plants that produce stainless steel tubes using a laser welding system, which has helped to increase processing speed, there is now a need to create an accumulation system with sufficient capacity for joining the head/tail of the strip and thus to replace obsolete cavity-type or looping accumulation systems. That's the reason why Oto Mills created the FBS INOX accumulator, which was developed with the company's thirty years of experience with this type of unit.

Besides offering the proven advantages of Oto Mills accumulators, FBS models have a series of additional custom features that were exclusively developed for use with stainless steel. In particular, all the rollers and surfaces that contact the strip have been specially treated so that they maintain the surface of the material intact.

Also, a special control system is used that optimises accumulation to prevent the strip from being scratched and ruined, while still maintaining the capacity that is required for joining the coil in a way that is suitable for being fed into any production line placed after the accumulator – even those that are obsolete and which require a great deal of time for preparation and for joining the strip. The FBS Inox accumulator is essentially composed of two groups of rollers that form the inner drum and the outer drum, which are arranged in two concentric circles.

The inner drum is fixed, while the loading drum rotates around its axis.

The strip is unwound by the decoiler and loaded by a pinch-roll into the machine at a speed that is higher than the line to be fed.

The strip is drawn in by the loading roller as the loading drum rotates. Besides drawing the strip, the loading roller also transfers it from the loading drum to the inner drum when the machine is loaded or emptied.

As the strip is extracted by the tube formation line, it moves from the inner drum, turns around a centrally mounted roll set, and is pulled over the asymmetrical gap between the entrance and the exit by the entrance and exit rollers and the slanted rollers.

During machine operation, the strip is removed from the two (internal and external) coils of accumulated strip with virtually no friction. As a result, the force required for extracting the material from the accumulator is relatively small.

The strip is restrained at the sides by lateral guide rollers which rotate on bearings. Strips of any width and thickness (within the operating range of the machine) can be accumulated. However, the thickness and width of the strip must be adequately proportioned, since the accumulation properties of a strip that is thin and also small in size largely depend on the type of material the strip is made of.

Oto Mills – Italy
Email: otoinfo@otomills.com
Website: www.otomills.com

Welding frequency up to 500kHz

NEARLY 10 years of successful use of a patented switching technology has proven the reliability of EFD Induction's Weldac IGBT welder. Refinement of existing technology has improved and extended the use of readily available, reliable and standard IGBT transistors up to 500kHz.

The improvements have led to lower stress and power loss in the transistors and the inverter module across the whole frequency range used for tube and pipe welding. The company states that the Weldac has proven so reliable, it warrants the welders' IGBT inverter modules and driver cards for a total of five years of operation.

EFD Induction has manufacturing plants, workshops and service centres in the Americas, Europe and Asia, with corporate headquarters in Norway.

EFD Induction – Norway
Fax: +47 35 50 60 10
Email: sales@no.efdgroup.net
Website: www.efd-induction.com

Spectrometers to hit Japanese market

SPECTRO Analytical Instruments GmbH has formed a strategic marketing alliance with SII NanoTechnology, Inc to market Spectro's inductively coupled plasma optical emission (ICP-OES) and mass spectrometers (ICP-MS) in Japan.

"We are very excited about our alliance with SII NanoTechnology," commented Manfred Bergsch, managing director for Spectro. "We consider it an important step in further expanding our presence in Japan. It also reflects the importance of our growing Japanese customer base. By partnering with SII NanoTechnology, we gain the experience and expertise of the established leader in Japan's growing ICP-OES and ICP-MS instruments market. At the same time, Spectro brings to the partnership the best-in-class technology of its ICP instrument products along with industry-leading factory support that includes access to our innovative eLearning portal, Spectro Campus."

The alliance covers all Spectro ICP-OES and ICP-MS instruments, including Spectro Genesis, Arcos and the recently introduced Spectro MS. Spectro will continue to support its existing Japanese customers through a subsidiary, formed in 2008. In recognition of the alliance, Spectro recently sold its 3,000th ICP-OES system to SII NanoTechnology for use at its Tokyo facility for demonstrations and application support.

SII NanoTechnology, which originated as the R&D division of Seiko Instruments and became a separate stand-alone company in 2003, is a leader in nanotechnology and ultra-precision measuring technology with more than 30 years' experience in the manufacture and marketing of ICP-OES instruments and ICP mass spectrometers.

Based in Kleve, Germany, Spectro is a unit of Ametek Materials Analysis Division, which manufactures instruments used in metals analysis, environmental monitoring, research and development, and petrochemical, pharmaceutical and electronics manufacture. Among its product technologies are arc/spark, ICP optical emission, ICP mass spectrometry and X-ray fluorescence for the analysis of solids, liquids, and powders. The Spectro MS is a fully simultaneous measuring mass spectrometer with ICP. It offers a combination of ion optic, mass spectrometer and detector able to separate and simultaneously detect an entire ion beam for every analysis.

Arcos is a highly sensitive ICP-OES that utilises 32 linear CCD detectors in an optimised Paschen-Runge for simultaneous recording of wavelengths between 130 and 770nm. It is especially suited for demanding analytical applications such as ultra-trace analysis for environmental applications or line-rich spectra for metal applications or the analysis of organic materials in petro chemistry. Spectro Genesis is a versatile ICP-OES spectrometer that features a more ergonomic design, lighter weight and simplified operation than the larger and more powerful Spectro Arcos.

Spectro Analytical Instruments GmbH
– Germany
Email: spectro.info@ametek.com
Website: www.spectro.com

Plate edge milling technology

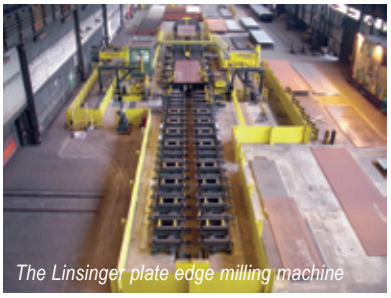
THE offshore wind energy sector is growing fast: In 2010 nearly 308 offshore wind energy parks were commissioned in Europe alone, an increase of 51% over the previous year. Offshore wind parks require heavier duty materials and technologies than their land based counterparts. Steel plates and structures must be heavier and more robust to withstand the marine environment.

The major steel mills Dillinger Huette and Ilsenburger Grobblech, subsidiary of Salzgitter AG, are important suppliers of edge milled plates for the leading wind energy park producers. Both steel mills rely on Linsinger plate edge milling technology for plates used in wind towers and their foundations.

The Linsinger plate edge milling machine at Dillinger Huette is the largest plate edge milling machine of its type in the world. This machine mills plates up to a thickness of 120mm, length from 4m up to 25m and width from 1.35m up to 5m, with weight up to 45 tons. In addition to rectangular plates, Linsinger plate edge milling machines can also mill the edge profiles on trapezoidal and tapered plates. These are required for the tapered geometry of wind tower structures. Plate edges for plate thickness reductions (taper edges) can also be milled. The plates are pulled through the two cutting stations on each side of the machine. The cutter heads are equipped with special carbide tips that harmlessly dissipate any thermal impact. The machine is designed for short processing times and efficient plate handling starting from start to finish.

All four plate edges are milled using only two milling units. One of the milling units is rotated ±90° to cross-mill the leading and trailing plate edges. Both longitudinal sides are processed simultaneously at a maximum milling speed of 10m/min. This increased capacity significantly reduces the overall running cost. The plates are positioned automatically according to higher level data input, then clamped hydraulically with tongs and fixed by additional vacuum plates (this special plate clamping system allows free overhead crane access to the plate). Highly accurate drives on over 40 axes and the CNC control system are further elements guaranteeing plates with highest precision and most exact tolerances. The sandwich design of the cutter head rings allow plate producers to mill highly flexible plate edge profiles with minimal tooling costs, even for low quantity batches as low as one plate. As recently emphasised by Linsinger CEO Hans Knoll: "Not many other machines can do all these things at this speed and precision."

Linsinger Maschinenbau – Austria
Website: www.linsinger.com



The Linsinger plate edge milling machine

The Vasa Museum | Sören Johnsson | Product Manager | Stockholm, Sweden

Would you trust a national treasure to anything but superior technology?

The royal warship Vasa is once again in danger. After 50 years in the humid environment of the museum that bears its name, steel bolts installed during the Vasa's reconstruction in 1961 are emitting harmful iron to the ship's oak hull. Each bolt must now be replaced.

The search for a better bolt material led to Sandvik and the company's experts on special steel applications. Having considered all the factors involved, including the environment of the bolt holes, Sandvik recommended the use of advanced duplex stainless steels.

"This is an unusual but challenging application for duplex steel", says Product Manager Sören Johnsson. "We have established a close relation with the engineers of the museum to refine the bolt design, develop machining methods and evaluate the optimum material grades. After thorough testing, Sandvik SAF 2707 HD™ hyper-duplex stainless steel was proven to provide the exceptional strength and long material life needed to stabilize Vasa for at least another 100 years."

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YOUR EXPECTATIONS

SANDVIK

www.smt.sandvik.com/vasa

Opening up higher pressure markets

PIPELINE connecting technology delivered by Swagelining Limited is to bring increased benefits to operators after being proven to withstand significantly higher pressures during exploration and production activity.

The company has announced that patented WeldLink® fittings are effective in pressure applications of up to 410 bar. A recent hydrotest proves that this technology can now be used in even higher pressure applications throughout the oil and gas industry.

Previously proven to be effective for use in up to 344 bar pressure, the 24-hour hydrotest saw a Swagelined 14" water injection pipeline, joined using the WeldLink connector, subjected to hydrostatic pressure of 410 bar. The results demonstrated that the WeldLink joint lost no pressure during the test and provided a complete water-tight seal.

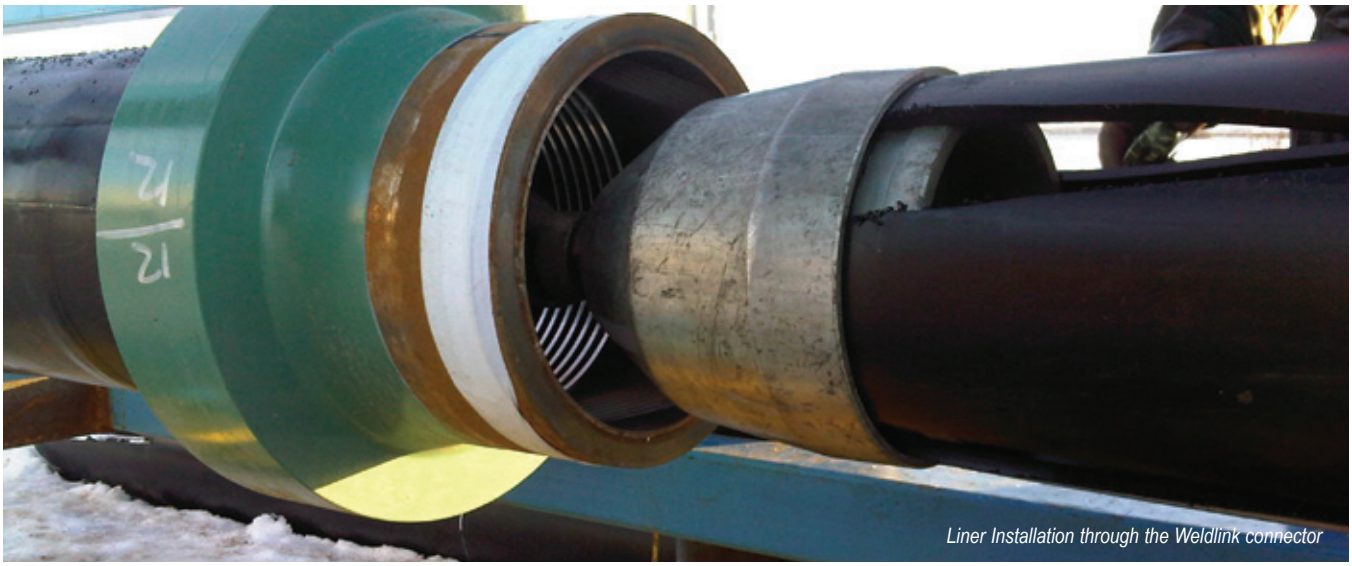
Steven Barnes, managing director of Swagelining Limited, commented, "We have an increasing number of clients using our patented Swagelining technology to line subsea and onshore pipelines as an efficient and cost effective method of corrosion prevention. Proof that the connector technology along with the liner can withstand up to 410 bar pressure opens up new markets for our unique technology."

Originally developed for use in subsea pipelines, the WeldLink connector is a cornerstone product in Swagelining Limited's Integrated Lining System – a concept which brings together liner design, material selection, project management, insertion technology, supply of connectors and terminations, and venting technology.

WeldLink enables polymer lined carbon steel pipelines to be fully welded. This allows the pipeline system to operate at high pressures without the risk of leakage from flanges. The connector system has been in use in high pressure water injection pipelines systems for over 15 years.

Mr Barnes continued: "Swagelining Limited's Integrated Lining System has extensive industry credibility. As well as being at the heart of one of the world's largest onshore lined water injection systems – a 55km x 24" onshore pipeline in Congo – Swagelining and WeldLink connectors are currently being used in the construction of the world's deepest lined riser in offshore West Africa. This project, elements of which are currently being constructed at sites in Scotland and Holland, involves the lining of over 90 No 14" x 24m long spools, shipped for final installation by J-Lay vessel in 2,000m of water."

Swagelining Limited – UK
Email: enquiries@swagelining.com
Website: www.swagelining.com



Liner Installation through the Weldlink connector

Swagelining a 330mm x 13mm PE100 liner into pre constructed 14" x 24m steel spools

The E-Z Gold pipe clamp series

PRESTIGE Industrial Pipework Equipment (PIPE) Ltd specialises in supplying portable machines and handling equipment for the preparation and fabrication of all types of pipework and plate for many industries, including oil refineries, chemical, petrochemical, nuclear, shipbuilding, offshore and boiler manufacture and repair, as well as for food and dairy production sectors. The company was originally established in 1989 and since then it has been consistently offering high quality products and services, establishing itself as the UK and Europe's leading suppliers in this field.

The latest addition to Pipe Ltd's range of rapid fit-up pipe welding alignment clamps is the E-Z Gold series, boasting an increased range of up to 14" o/d and manufactured from forged steel for increased strength. Stainless steel roller balls are fitted as standard to the wing bolts. The E-Z Gold Clamps can be used on stainless steel by fitting the optional stainless steel feet to prevent contamination of the pipe. The E-Z Gold range of pipe clamps are the cost effective reliable solution for the pipe welder. PIPE Ltd will be showcasing this new range of clamps at Mach 2010 from 7th to 11th June.

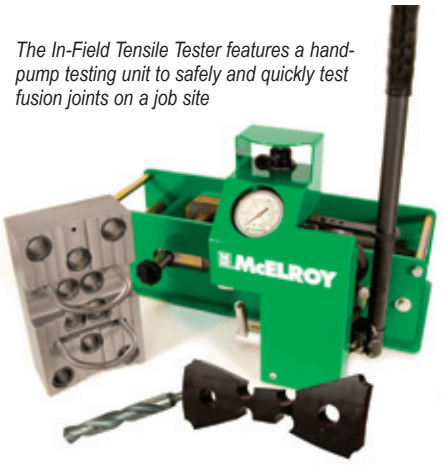
Prestige Industrial Pipework Equipment (PIPE) Ltd – UK
Email: sales@pipe-ltd.com
Website: www.pipe-ltd.com

The PIPE Ltd Clamp

In-field tensile tester

THE new McElroy in-field tensile tester gives contractors and pipeliners the ability to quickly and accurately test high-density polyethylene (HDPE) butt fusion joints in the field.

In the past, quality assurance testing of butt fusion joints required cutting part of a completed joint out of a pipeline and sending that test sample to an off-site laboratory. The results of the testing would then take hours or days to return. Another popular testing method, the bend-back test, requires specialised tooling and procedures to be performed safely on thicker pipes.



The In-Field Tensile Tester features a hand-pump testing unit to safely and quickly test fusion joints on a job site

With the In-Field Tensile Tester, a hand-pump system safely tests coupons from pipes sized 2" IPS (63mm) and larger. The In-Field Tensile Tester also incorporates a template that is attached to the pipe to create a coupon through the use of a drill and reciprocating saw. The coupon is then inserted into the hand-pump tensile test unit, which performs a destructive test to qualitatively pass or fail the joint.

"The In-Field Tensile Tester is an exciting new product that is generating some buzz because there's nothing like it on the market," commented Chip McElroy, president of McElroy. The device is patent pending, but is available now through McElroy's distribution network.

McElroy – USA
Email: fusion@mcelroy.com
Website: www.mcelroy.com

Casting of Cu-DHP tube

UPCAST® – the upward continuous casting technology company – is best known for the production of Cu-OF rod used within the wire and cable industry. Now this proven method has been applied to the casting of Cu-DHP tube in the form of UPCAST®-SGTube, producing thin-walled cast tubes suitable for direct drawing to sanitary and ACR tubing.

Cast tubes come in heavy coils straight from the casting line with a fine grain structure lending itself to excellent drawing performance. The first production plant was commissioned in November 2010 and is now in full scale operation.

UPCAST®-SGTube combines the advantages of baseline UPCAST® technology – low investment and production costs and near-net-shape casting – with a specialised cooler-die design and casting stroke form.

Upcast Oy – Finland
Website: www.upcast.com

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MTI

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Phased array flaw detector

SONATEST has launched a new phased array instrument, named veo 16:64.

The veo is a fully capable phased array instrument with multi-technique functionality, including TOFD, fast data recording, a simple to use interface and rugged housing design. Typical applications include pipeline weld inspection, corrosion mapping, aerospace and composite testing.

Key design elements considered in the development of the veo series are user and performance focussed, which include simple controls and a workflow driven menu structure. The 3D Scanplan feature displays a full 3D view of the user's test set up, including probes, wedges, the weld and geometry, with phased array beams. There are also on-board probe and wedge databases for fast setups.

The 16:64 phased array instrument has TCG and ACG, a superior encoding speed with fast A-scan recording and reporting functionality. There are two separate conventional channels providing simultaneous phased array and TOFD scanning to speed inspection and ensure correct data referencing for improved defect characterisation.

Real time focal law calculations allow the user to change scanning parameters instantly, reducing the time spent on setup and defect investigation.

The veo enclosure has been designed to withstand the tough environments in which NDT inspections are carried out, achieving IP67 standard for water and dust ingress and employing internal shock mounts to withstand impacts.

A large, sunlight readable screen enables the technician to see and interpret results with ease and efficiency, especially when complex inspections need multiple probe configurations. The veo batteries give up to six hours' use, and are hot swappable for continuous operation.

Wayne Woodhead, managing director of Sonatest Ltd, commented, "Phased array is an exciting technology that is becoming regarded as the future of non-destructive testing for critical inspections and productivity improvement. The new veo brings Sonatest's design values of simplicity, capability and reliability into this rapidly expanding market, giving users an effective, efficient tool to meet their demanding needs."

Sonatest's new veo phased array instrument

Sonatest Limited – UK
Email: sales@sonatest.com
Website: www.sonatest.com

Laser Series 6000 offers high accuracy

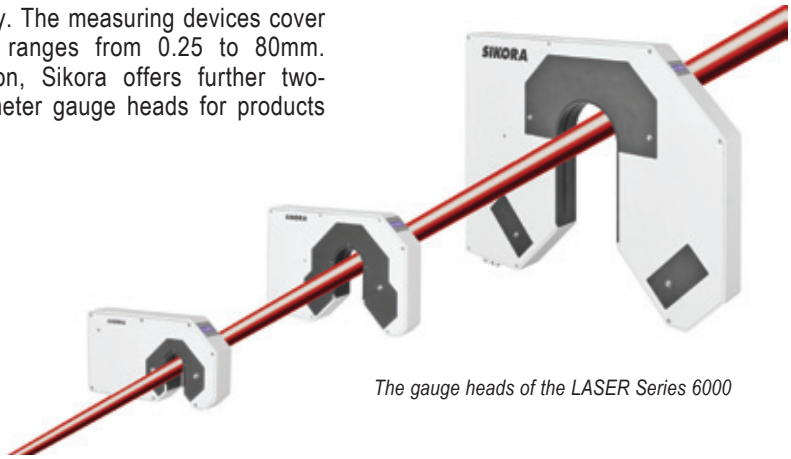
MEASURING precision combined with outstanding functionality and design – these are the features of the new diameter gauge heads of the Laser Series 6000 for quality control in hose and tube extrusion lines. This model range is more than a facelift of the successful 2000-series and achieves an even higher productivity. From now on customers also get a two-year warranty for a gauge head of the Laser Series 6000.

The applicable design of the laser-devices, with small dimension and optional swivelling gauge head, includes a measuring value display directly at the gauge head for a further improvement. Moreover, there are no external plugs. A universal interface module is directly integrated into the gauge head. As a result the plugs as well as the cables are protected from any production influences. In addition, the gauge head opening of the Laser Series 6000 is twice as big as the measuring range. This wide opening as well as the big sight field allows for an easy product feeding.

The devices have a measuring rate of 2,500 measurements per second with high single value precision independent from the position of the product within the measuring field and thus ensure an optimum line control and reliable statistical data.

The gauge heads do not include moving parts and maintain their accuracy during the entire operation time. Calibration procedures or maintenance are not necessary. The measuring devices cover diameter ranges from 0.25 to 80mm. In addition, Sikora offers further two-axis diameter gauge heads for products from 0.05 to 500mm as well as 3-axis measuring devices for product diameters from 0.2 to 100mm.

Sikora AG – Germany
Fax: +49 421 48900 90
Email: sales@sikora.net
Website: www.sikora.net



The gauge heads of the LASER Series 6000

Resurrecting aging water pipes in innovative trial for water pipe company

SWAGELINING Limited, a pipeline rehabilitation and life extending specialist, has used its cutting edge technology to transform aging water pipes during a trial for a UK utility giant.

United Utilities commissioned the project to allow it to compare various technologies available on the market before refurbishing an 80km long aqueduct, which transports drinking water from Oswestry in Shropshire to Liverpool. The pipeline is a key water source supplying over 900,000 people in Cheshire and Merseyside.

Using its patented Swagelining™ technology, developed from an old concept originally created by United Utilities and British Gas, Swagelining Ltd installed a thin polymer lining into a 1.35km stretch of the 100 year old 39" diameter cast iron pipeline.

Stephen Barnes, managing director of Swagelining Limited, commented, "The scope of the trial was to specify, design and insert a semi-structural liner into the large diameter pipeline. This trial allowed us to prove the effectiveness of our unique technology and highlight the benefits which it offers, as well as our extensive expertise.

"We use a bespoke designed software prediction package as a foundation that supports lining system designs to be tailored for clients. The software enables the optimum liner size to be selected to achieve maximum pull length whilst not compromising on the pipeline volume capacity. For this trial we were able to design a thin liner which meant the overall flow capacity was maintained.

"One of the main advantages of our unique technology is that it provides the ability to achieve long pulls of polymer liner with minimum excavation, which can lead to considerable cost savings. This trial saw us Swageline the section of the pipeline in two pulls – one being 750m and the other 600m, although pulls of over 1km can be achieved."

The Swagelining technique was developed in the 1980s as a trenchless technology rehabilitation solution providing a method of overcoming the problem of failing pipes in inaccessible or inconvenient areas, such as beneath busy main streets. The technology was further developed in the 1990s for the protection of new pipelines in the subsea industry complemented by a new connection system, WeldLink™, for use in high pressure, carbon steel and water injection applications.

Swagelining Limited – UK
Email: enquiries@swagelining.com
Website: www.swagelining.com

Swagelining a semi-structural liner into a 39" diameter cast iron potable water main

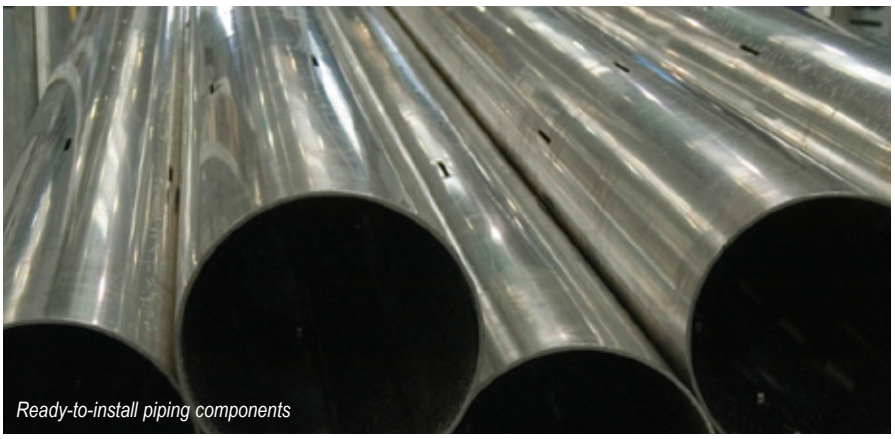
Pipe manufacturing, 3D laser profiles and circumferential welding

BUTTING's range of manufacturing capabilities includes a versatile and sophisticated laser processing centre. A major customer in the petro-chemical sector is taking advantage of this; the family owned company is manufacturing ready-to-install piping components, which the customer will later use in a reformer.

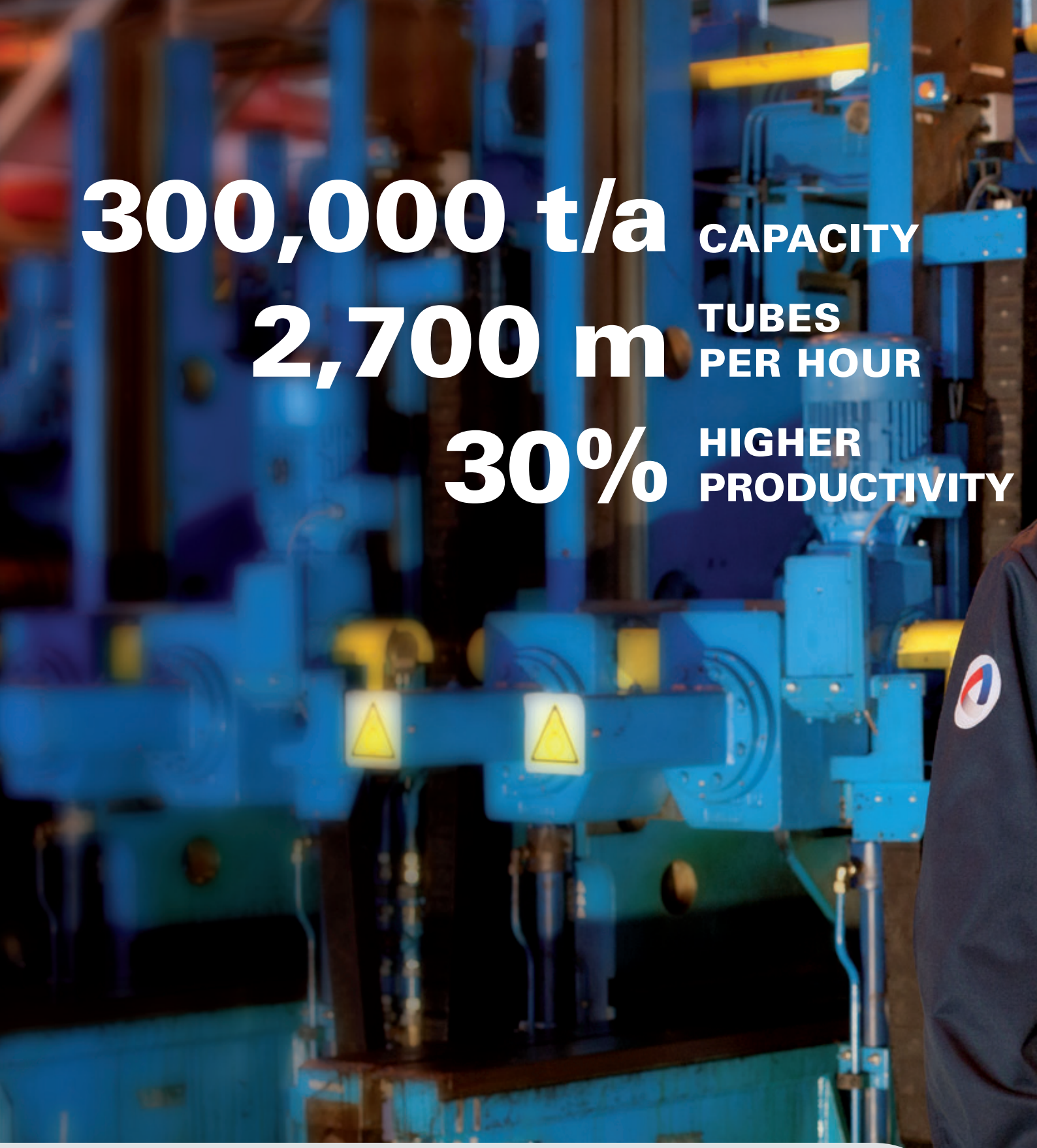
The pipes, in sizes 174 x 3mm, are continuously manufactured from coils, using the materials Alloy 800HT and Alloy 602CA. The laser cutting equipment is used as part of the subsequent processing to produce special 3D profile cuts. Ceramic granulate catalysts are later placed in the completed piping components, and process gas going through will then escape via the laser-cut profiles as defined.

The piping components will have a total component length of 9,952mm and are manufactured by the internal diameter, with a tolerance of ±0.5mm and a simultaneous ovality of ±0.85mm maximum. All the welding seams are 100 per cent FE-tested. Previously, these pipes were processed further by three other companies after being manufactured by Butting, before the end-product reached the customer ready to be installed. Thanks to its expanded laser capacities, Butting can now perform all the subsequent work processes in-house.

H Butting GmbH & Co KG – Germany
Email: info@butting.de
Website: www.butting.de



Ready-to-install piping components



Severstal TPZ Sheksna is a market leader in the production of longitudinally welded structurals. The horizontal qiuck-change system from SMS Meer permits shorter changing times and increases productivity by 30%! The CSS Quicksetting® System ensures a consistently high quality, and thanks to the good cooperation with the customer the new plant went into production right on schedule.

Competence and experience, reliability and flexibility – the hallmarks of SMS Meer. We give our customers worldwide a lead over the cometition in their markets. SMS Meer offers high-performance machines and plants for steel production, tubes, long products, forging, NF metals and heat treatment. Our solutions – one more reason to be proud!

MEETING your **EXPECTATIONS**

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Oil and gas

The Libyan Sahara near Gaberoun

In Libya since the beginnings of its energy industry, Italy's ENI now has much to lose there

When, on 13 March, Libya's acting oil minister said that he had reached out to Italian energy major ENI for help in extinguishing a blaze at an oil facility, the SOS pointed up the extent of Libyan dependence on the expertise of foreign oil companies. It illustrated as well the paralysing effect of the withdrawal of that support as a result of the fighting in Libya, a member of the Organization of the Petroleum Exporting Countries (OPEC).

"There's quite a big fire in one of our...kerosene storage units [at Ras Lanouf, in the east of the country], and we're trying to fight it," National Oil Co head Shukri Ghanem told the Associated Press in a telephone interview. "We are asking for some help to try to put it down."

Mr Ghanem said that he had appealed to ENI's chairman on grounds that the refinery "is on the Mediterranean and it affects the environment." The uncertainty was unmistakable when he told the AP, in Cairo, "They're deciding whether they can help."

As noted by AP business writer Tarek El-Tablawy, ENI's offices in Milan and Rome were closed on Sunday and company spokesmen were not answering their cell phones. ("Libya Seeks Italy's Help with Fire at Oil Facility," 13 March)

Because Libya sits atop Africa's largest proven reserves of crude, global oil markets were preoccupied with disruptions to its 1.8 million barrels per day (bpd) of oil output and with fears that the unrest would spread to other, larger OPEC members. But a case could be made that the ENI officials who did not return phone calls were struggling under a special weight of worry.

According to "Unrest and Libya's Energy Industry," published 22 February by Strategic Forecasting, Inc, by that date political strife in Libya had already begun to impact energy production; and, STRATFOR warned, "This is just the beginning." Here, abbreviated and lightly edited, is the global intelligence company's analysis of ENI's unenviable position vis-à-vis Libyan strong man Muammar Gaddafi's suddenly fractious domain:

ENI's relationship with Libya reflects Rome's, which has had influence in what is currently Libya literally since the time of the Roman Empire. Of more pertinence to the present situation, ENI has had boots on the ground in the North African state since the dawn of its energy industry in 1959 and has never scaled back its operations. Even in the days of Libya's ostracism from the West in the 1980s, ENI drilled on. Until the onset of the current political turmoil, ENI produced some 250,000 bpd of oil in Libya, which accounts for 15% of the Italian firm's global output. It is also the major power behind Italy's moderate piped natural gas exports.

As a partially state-owned firm, ENI has been unable to secure new energy sources except on terms set by others. Italy has to find about 60 billion cubic metres (bcm) of natural gas a year to cover its natural gas deficit. Libya can provide about 11 bcm. ENI, fully supported by the central government in Rome, gets all of it, but needs 49 bcm more. Italy, via ENI, is also the single largest consumer of Libya's oil, with most of the rest going elsewhere in Europe.

Whether ENI loses access to Libyan energy because of safety concerns, supply interruptions, or a new government in Tripoli that looks less than favourably upon the company that stuck by Colonel Gaddafi through thick and thin, there is much risk and little opportunity ahead in ENI's future relations with Libya.

The costs of remediation vs the risks of doing nothing: deteriorated pipeline infrastructure forces a debate in the US

According to the most recent government figures, in the United States there are over 2.3 million miles of pipeline carrying natural gas and hazardous liquids (chiefly petroleum and refined petroleum products, but also chemicals and hydrogen). Outdated technology and decades of neglect have been cited in a number of pipeline accidents across the country. The needed improvements to the nation's pipelines could cost billions of dollars. For consideration: (1) the question of who should bear this expense; and (2) aspects of a disaster in San Bruno, California, last year, with its lesson in the dangers of delay.

Security at a price

As reported by Bay Citizen, a news organisation providing coverage in the San Francisco Bay Area to the *New York Times*, safety improvements debated during federal hearings into the gas pipeline explosion in San Bruno could come at a substantial cost to the 6.1 million business and household customers of Pacific Gas & Electric (PG&E). The explosion – on 9 September 2010 – killed eight people. The hearings, by the US National Transportation Safety Board, revealed that it was caused in part by failures in a matrix of pipes installed in the 1950s.

From Washington, where the hearings were held 1-3 March, John Upton of Bay Citizen wrote that these initiatives were discussed: replacement of aging pipes; new leak detection systems and

more frequent inspections; pipe-burrowing cameras and automatic or remote-controlled gas shut-off valves; as well as specialised firefighter training and public awareness campaigns.

Despite PG&E's claims that automated shut-off valves offer marginal benefits, their installation was mandated after the San Bruno event. PG&E estimates that it would cost $225 million to replace the 300 manual valves throughout its gas distribution system in Northern California. At the Washington hearings, the utility agreed to promptly replace 12 of them. ("PG&E Faces High Costs on Pipelines," 3 March)

In addition, under measures already enacted as a result of the explosion in San Bruno, the company that provides natural gas and electricity to some two-thirds of the state of California has pledged to spend up to $300 million this year to inspect aging pipes for weaknesses and to update pipeline paperwork.

Bay Citizen's Mr Upton noted that, under the rules governing California's utilities, customers pay for safety improvements, a tab that includes an 8.79% profit margin for PG&E. The safety measures already identified by the company could cost customers nearly $100 apiece in rate increases, which if approved by the California Public Utilities Commission would show up in bills over several years.

With the extent of the requirements to be imposed on PG&E as yet unclear, Mr Upton observed that final costs to customers could be much higher. Utility Reform Network, a consumer advocacy group, said it welcomed the prospect of improved safeguards but called on state legislators to force PG&E's shareholders to help pay the bill.

"Every dime PG&E has originates with ratepayers," a spokeswoman for the reformers told the news organisation. "PG&E should be forced to shift money from profits to safety."

Not an open and shut case

"Pacific Gas and Electric decided in June 2006 not to equip its gas pipelines in many locations with valves that the federal government said could limit the damage from pipeline failures, a top company official testified on 1 March."

Writing from Washington in the *New York Times*, Matthew L Wald went straight to a central feature of National Transportation Safety Board hearings on the San Bruno pipeline rupture: an inquiry into the relative importance of valves. Pipeline workers reached the scene quickly, but – not qualified to operate the line's valves – required 90 minutes to shut off the flow of gas. Testimony was taken that the more advanced valves decided against by PG&E in 2006 could have closed automatically, or been closed by remote control.

But Chih-Hung Lee Sr, a senior consulting gas engineer in the risk management area of PG&E, testified on a memo of his from 2006, to the effect that automatic shutoff valves, known as ASVs, are of limited efficacy. "They will not provide additional safety to people or prevent property damage," he wrote then. "The damage will happen before [the ASV] can have any effect" on the ruptured pipeline. ("Valves Are Focus in Hearing on San Bruno Pipeline Explosion," 1 March)

Another PG&E official told the hearing that, even if automatic shutoff valves had been in place, they may not have helped in the San Bruno rupture. Edward Salas, the senior vice president for engineering and operations, said, "I don't think we have the analysis yet to quantify what that impact might have been."

The US Department of Transportation had registered a contrary view in 1999, asserting that at many locations "there is significant risk as long as gas is being supplied to a rupture site, and operators lack the ability to quickly close existing manual valves." Stating the obvious, the agency added that any fire "would be of greater intensity and would have greater potential for damaging surrounding infrastructure if it is constantly replenished with gas."

Automatic shutoff valves are expensive. (Mr Lee of PG&E estimated their cost at about 20 times the value of the gas saved if a ruptured pipeline were to be sealed faster.) But, given the magnitude of the San Bruno disaster – eight deaths, 38 houses destroyed, many more injuries sustained and structures damaged – it seems likely that the relative value of ASV's is a topic that will be revisited often.

For its part, Pacific Gas and Electricity has been reconsidering its position on the devices since the September accident. "Clearly, something went wrong," Mr Salas told the hearing. "So we're re-evaluating our program, re-evaluating the notion of threats and where they come from."

On 3 March, at the conclusion of the hearings in Washington, PG&E issued a statement that read, in part: "Today's panel of experts underscored the need for pipeline operators to have multiple inspection tools available so the method best suited to each pipeline can be applied. The discussions also reinforced the importance of developing new and better technologies to enhance safety."

Metals

In the larger picture of a devastated Japan, five crippled steel mills

While nuclear facilities received the emphasis in the immediate aftermath of the earthquake and tsunami that struck Japan on 11 March, the London-based price service Steel Index reported that at least five major Japanese steel mills halted production and could be out of action for as long as six months. The five mills are Nippon Steel Corp's Muroran and Kimitsu works; JFE Holdings Inc's Chiba

The earthquake in Japan had consequences for the steel industry in the country

and Keihin plants; and Sumitomo Metal Industries Ltd's Kashima works on Tokyo Bay. Citing sources in Shanghai, Steel Index's director Tim Hard told Diana Kinch of Dow Jones Newswires (12 March) that the plants had all sustained structural damage and their port facilities had been rendered inoperable.

Assuming a six-month hiatus, Mr Hard said that some 22.2 million metric tons of iron ore demand could be subtracted from the seaborne market. He noted that the five Japanese mills are on contract with Brazilian miner Vale SA for their supplies, and that they also buy ore on the Australian spot market.

The Steel Index director told Ms Kinch that, in addition to the integrated steel mills centred on Tokyo Bay, there is also "a host of minimills and dockside scrap-storage facilities nearby which will have been affected, not to mention the port and sea-bordering infrastructure."

In Mr Hard's view, the cancelled shipments to the affected mills should not have a major direct impact on iron ore prices, as they represent a comparatively small percentage of the billion tons of iron ore shipped by sea each year.

Japan is of course a large consumer as well as major producer of steel. Its demand for steel can be expected to recede as it digs out and assesses damage. But, in the long term, the rebuilding of ravaged Japanese cities could have the effect of boosting steel demand and prices.

An Australian-built refinery going up in Malaysia may break China's near-monopoly of rare earths

The race is on in Malaysia to finish the world's largest refinery for rare earth metals – the first such processing plant to be built outside China in nearly three decades. If the colossal construction project is completed, and meets expectations, it could mean the end of China's virtually exclusive command of the strategic materials vital to high-tech manufacturing.

But, as reported by Keith Bradsher in the *International Herald Tribune*, for Malaysia as well as for the world's most advanced technology companies the project represents a gamble that the processing can be done safely; or, at least, safely enough. Mr Bradsher wrote, "As Malaysia learned the hard way a few decades ago, refining rare earth ore usually leaves thousands of tons of low-level radioactive waste behind." ("Taking a Risk for Rare Earths," 8 March)

Wariness about the process helps explain why countries with rare earth ore deposits can be less than eager to build their own refineries. A US mining company, Molycorp, plans to reopen an abandoned mine near Death Valley in California. But first it must address environmental concerns by rebuilding the adjacent refinery. While rare earths were not in short supply, the problematic work of refining could be left to the under-regulated Chinese processing factories that have created vast toxic waste sites.

Last September, however, a territorial dispute prompted China to impose a two-month embargo on rare earth shipments to Japan. And, for a short time, shipments to Europe and the US were also blocked. These alarms, together with Beijing's lowering of the export limit on its rare earths, has helped push world prices of the material to record highs – and pushed industrial countries to seek alternatives.

Heeding the call, the giant Australian mining company Lynas has set as many as 2,500 construction workers to finishing a $230 million rare earth refinery in the industrial port city of Kuantan, on the shores of the South China Sea. As reported by Mr Bradsher, the plant will refine slightly radioactive ore from the Mount Weld mine deep in the Australian desert, 2,500 miles away. The ore will be trucked to the Australian port of Fremantle and transported by container ship from there.

Within two years, Lynas expects the refinery to be able to meet nearly a third of the world's demand for rare earth materials – excluding China, which has its own abundant supplies.

Lynas's executive chairman Nicholas Curtis told the *Herald Tribune* that building and operating such a refinery would cost four times as much in Australia, which has much higher labour and construction costs. Australia is also home to a politically influential "green" party.

Despite the potential hazards, the government at Kuala Lumpur was eager for the Lynas investment, even offering a 12-year tax holiday. If rare earth prices stay at current lofty levels, Mr Bradsher noted, "the refinery will generate $1.7 billion a year in exports starting late next year, equal to nearly one per cent of the entire Malaysian economy."

This is not to say that Malaysia takes a casual attitude toward potential environmental hazards. Raja Dato Abdul Aziz bin Raja Adnan, the director general of the Malaysian Atomic Energy Licensing Board, said his country approved the Lynas project only after commissioning an inter-agency review. The results indicated that the imported ore and subsequent waste would have low enough levels of radioactivity to be manageable and safe.

Elsewhere in metals . . .

The projected merger of the London Metal Exchange (LME) and the TMX Group, parent company of the Toronto Stock Exchange, would unite two of the world's favoured venues for raising capital in the mining and metals businesses. If approved by shareholders, the combined exchange would form probably the largest market anywhere for mining and natural resources stocks. The deal, announced 9 February, calls for LME shareholders to own 55% of the merged company to be based in London and Toronto. TMX shareholders will own around 45% of the combined group, hold seven of 15 board seats, and have a say in filling executive roles other than CEO, which goes to current LME chief Xavier Rolet.

If the combined exchange goes forward, it will include an impressive array of public mining companies ranging from Xstrata (with headquarters in Switzerland and Britain), the British-Australian group Rio Tinto, and Swiss-based Glencore International, to smaller enterprises with an attraction to financiers focused on natural resources. But foreign involvement in domestic companies connected to natural resources is politically sensitive in Canada, and the Conservative government at Ottawa is likely to review the transaction under its Investment Canada Act. As recently as last November, this legislation was invoked to block a $38.6bn bid from Australia's BHP Billiton for the Potash Corp of Saskatchewan.

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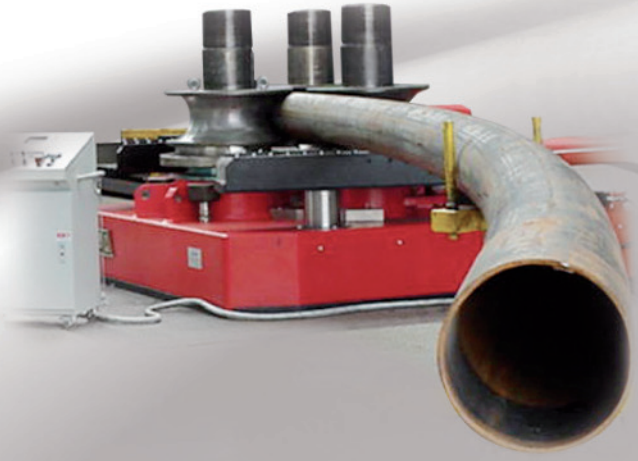

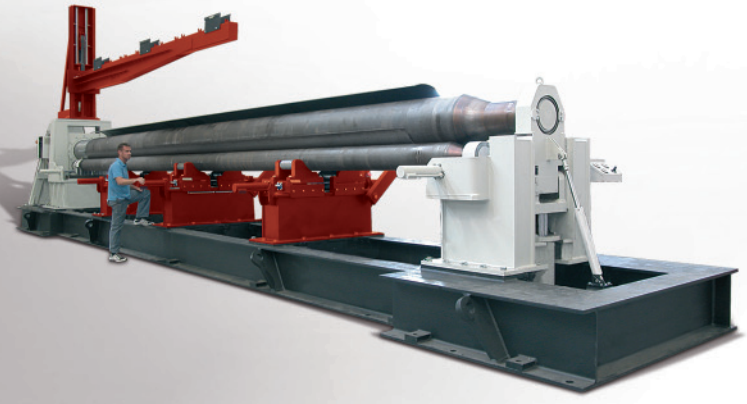

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Ministry of Knowledge Economy

Technology

Innovative alloys, stronger than steel, can be moulded into virtually any shape

A team of materials scientists at Yale University has reported the development of a set of materials that are stronger than steel but readily mouldable. According to team leader Jan Schroers, the new materials are derived from several different metals, including zirconium, nickel, titanium and copper. They cost about the same as high-end steel but can be processed as cheaply as plastic.

As announced by Yale (New Haven, Connecticut) on 28 February, the researchers found that some recently developed bulk metallic glasses, or BMGs – metal alloys with randomly arranged atoms rather than the standard crystalline metallic structure – can be blow moulded. The new technique has been used to fabricate biomedical implants, gyroscopes, seamless miniature resonators for microelectromechanical systems, metallic bottles, and watch cases, all moulded in under a minute and exhibiting twice the strength of steel.

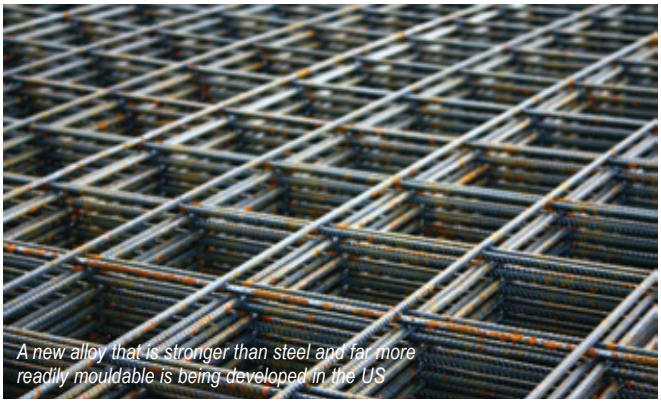
"This could enable a whole new paradigm for shaping metals," said Dr Schroers, who received his training at the University of Aachen, in Germany. "The superior properties of BMGs relative to plastics and typical metals, combined with the ease, economy and precision of blow moulding, have the potential to impact society just as much as the development of synthetic plastics... in the last century."

If the new materials live up to this billing, the prospects for industry are exciting. The complex shapes achievable with BMGs, at no sacrifice of strength and durability, would be impossible with the use of regular metals. In addition, blow moulding of BMGs permits combining three separate steps in traditional metal processing – shaping, joining, finishing – into one.

The Yale scientists blow moulded the alloys at low temperatures and low pressures, where the bulk metallic glass softens dramatically and flows as easily as plastic but without crystallising. For careful control and maintenance of the ideal temperature for blow moulding, the BMGs were shaped in a vacuum or in fluid.

"The trick is to avoid friction typically present in other forming techniques," Dr Schroers said. "Blow moulding completely eliminates friction, allowing us to create any number of complicated shapes, down to the nanoscale."

A prompt online response to the Yale story, posted on the Popular Science website, seized on an omission that could limit applications for the new metals. On 1 March, nhan1st wrote, "The idea having mouldable alloys is great, but there seems to be a fact that they're missing. Even if we get that kind of alloy, they never state how light it will be. A main property of plastic that we desire is its light weight. Who's to say that the weight of the alloy won't [cancel out] its strength?"



A new alloy that is stronger than steel and far more readily mouldable is being developed in the US

Trade

Reversing itself, the WTO backs China against the US on steel pipe duties

On 11 March, the Appellate Body of the World Trade Organization negated key parts of a ruling that had largely supported the American position on a Chinese complaint about US duties on imports of lightweight, rectangular steel pipe. Finding otherwise after a series of anti-dumping and countervailing duty investigations, the appeals judges determined that "the US acted inconsistently" as to global trade rules.

The jubilant Chinese mission to the WTO promptly issued a statement from Geneva that the decision "strikes at the heart of how the US has applied countervailing duties to Chinese products." The Chinese take the reversal to mean that the WTO has conclusively established that "the US acts unlawfully in the methods by which it calculates and imposes countervailing duties on imports from China."

To recap the dispute, in July 2008 the US imposed levies on $200 million of the steel pipe from China, South Korea and Mexico. Chinese exporters face countervailing duties, intended to offset subsidies to the home industry, of as much as 200%. They also face anti-dumping duties, which compensate for goods sold overseas at prices below those at home, of as much as 265%.

This marked the second time that the US imposed duties on Chinese imports on similar grounds, following by a month a case involving another category of steel pipe. In October 2010, WTO judges upheld the right of the US to impose both sets of tariffs on the Chinese imports.

The initial panel confirmed the right of an importer to compensate for subsidies and under-pricing by setting duties on goods from non-market economy countries. China had challenged both the method employed by the US in calculating the levies and its application of two sets of damages: anti-dumping tariffs for unfairly priced goods and countervailing duties for subsidised products.

"The imposition of double remedies is inconsistent" with global trade rules, the Appellate Body said in its 228-page report. The judges' reasoning and their conclusion are summarised in the last four pages, which may be read at www.wto.org

Sounding a quite different note from his Chinese counterparts, US Trade Representative Ron Kirk said in a statement, "I am deeply troubled by [the WTO reversal]. It appears to be a clear case of overreaching by the Appellate Body. We are reviewing the findings closely in order to understand fully their implications."

Dorothy Fabian, Features Editor (USA)

Tube Mills & Roll Forming Machines

If a one-man band were a piece of precision machinery, it would be a roll former. The roll forming process in a state-of-the-art tube mill not only incorporates the best of what stamping, extrusion and press brake bending deliver: it also accommodates so-called secondary operations so smoothly as to obscure the distinction. Welding. Hole punching. Embossing. Trimming to length. The roll former folds them all in. It does so while producing high-toleranced parts in long lengths and high volumes; continuously; without missing a beat.

This is a considerable accomplishment — one to which the kinds of products and services reviewed here make an important contribution.

Photo: Taiyuan Heavy Industry Co Ltd

Upgrading and rebuilding tube mill and roll forming lines

UNIVERSAL Tube & Rollform has been working on upgrading and rebuilding tube mill and roll form lines using state of the art controls, new drive systems and die accelerators from Universal Controls Group.

The current economic conditions have led many companies to upgrade their tube mills or rollform lines as opposed to going to the expense buying new equipment. This is the area Universal Tube & Rollform has been expanding in over the last several years. It is uniquely qualified to assess the current condition of customers' machinery and offer expert advice for upgrades.

It works together with Universal Controls Group to assess the options customers need such as new controls, drive systems, die accelerators, length control and other accessories to retrofit existing machinery. Universal Tube can also offer complete turn-key systems from initial design to start-up. The average lead time for a reconditioned machine is 12 to 14 weeks.

Customers are encouraged to bring their material to run through the machine at final inspection and are offered a 'customer inspection and safety awareness' programme, for communication purposes so that any operational concerns can be written down by the customer and addressed accordingly by the Universal professionals. Universal also offers one of the largest selections of used tube, pipe mills and rollforming machinery in stock that can be found anywhere in the world. Many of its in-stock lines have already been upgraded and are ready to put into production. It offer tube mills, rollformers, HF welders, straighteners, cut-offs and more.

Customers can purchase machinery direct from the floor as is and the experienced team can clean, paint, rebuild, install and train staff making certain that the machine is running efficiently.

Universal Tube belongs to the MDNA (Machinery Dealer's National Association) so you can trust that the equipment is of the highest possible quality. It also offers a 30 day return privilege if something happens and the machine would need to be repaired or returned. The company is a proud member of the TPA, FMA, SME, ITA and The Better Business Bureau. Overall, Universal's mission is to satisfy every customer that walks through its doors.

Universal Tube & Rollform – USA
Fax: +1 419 874 2825
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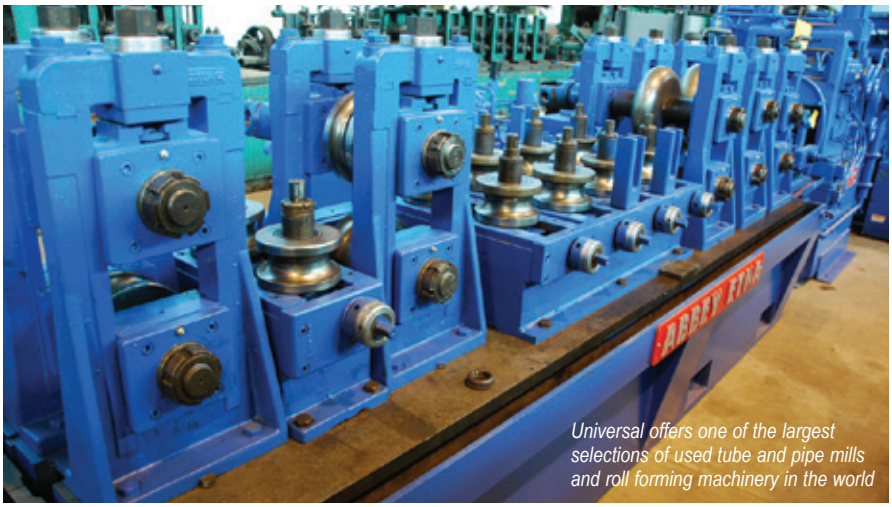


Universal offers one of the largest selections of used tube and pipe mills and roll forming machinery in the world

EZTM designed new generation of tube-rolling plant

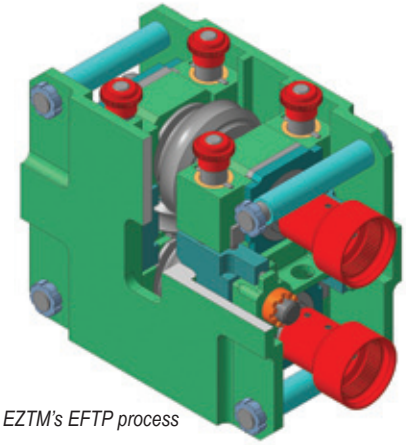
EZTM JSC has begun designing a new generation of tube-rolling plant and the principle of efficiently fragmented technological process (EFTP) forms the basis of the project.

The essence of the EFTP principle is that the technological process is divided into smaller subprocesses that are used to allow the flexible development of different manufacturing processes depending on the market requirement of the finished products.

The use of this principle for designing the tube-rolling plant allowed three tube rolling technological schemes to be included. This allows the production of small and large batches of tubes of a wide range of product sizes and grades with minimum expenses for the resetting of the equipment.

The 7-stand continuous mill of the new generation uses MPM Quattro technology, which will be used as an elongator. Eight-sided wall reduction is performed on the long retained mandrel of MPM Quattro mill (of the 3-high mill – 6-sided wall reduction, of the classic 2-high MPM mill – 4-sided one).

This decision provided friction conditions at the outer tube surface similar to the three-high scheme; this keeps the friction processes at the inner tube surface to a minimum at the mandrel extracting by implementing the technology of increasing of tube cross-section perimeter as compared to mandrel section perimeter, similarly to MPM mill technology (the use of such technology in a three-high mill is impossible); decreasing the transverse thickness variation of the produced tubes (the technology has the potential to reach the thickness variation parameter up to the value of ±4%); the distinctive feature of the new MPM Quattro technology is that it can be applied for both building new tube-rolling plants with continuous mill and retrofitting of existing MPM mills.



EZTM's EFTP process

EZTM JSC – Russia
Fax: +7 496 577 73 04
Email: protokol@eztm.ru
Website: www.eztm.ru

Hydraulic roll plate bending

SINCE 1971 Sergi has specialised in the design and construction of roll plate bending machines and profile bending machines. After 35 years' experience, the company began conceiving new high-level models aimed at the processing of high thicknesses (up to 200mm).

The new EvoRoll is a hydraulic roll plate bending machine with three rolls, with variable geometry, able to process steel plates from 10 to 200mm thickness. The two side rolls can move independently, creating any geometry necessary for processing, and so reducing the flat end of pre-bending.

The machine is particularly suited to rolling high thickness pipes, tubes and segment of cones for applications such as pressure vessels, oil and gas industry, pipelines, heavy turbine, wind towers, tanks and shipyards.

Sergi's EvoRoll

The main advantages of the EvoRoll machine are the ability to produce cones of high thickness thanks to the high tilting of side rolls (up to 130mm) and the Sergi brake system with moving heads. The machine is equipped with a quick release system for the fast changing of the top roll, with the ability to increase the range of working thickness.

The guides of the rolls and the moving parts of the machine are made of bronze-graphite, self-lubricating to eliminate the use of additional lubrication, with the advantage of keeping the guides free from grease and oil.

All machine movements are controlled by a Siemens PLC. This uses an internally developed program that manages the main functions of the machine positioning. The hydraulic system is completely controlled by a PLC, which allows the simultaneous movement of perfect translation and rotation of the upper roller and translation of the lower rollers, with gains in speed and production efficiency.

Sergi Srl – Italy
Fax: +39 030611820
Email: sales@sergi.it
Website: www.sergi.it

Dual capacity high-frequency quick-change tube mill

T&H LEMONT has recently commissioned a new dual capacity, quick change tube mill system. This dual capacity mill is capable of producing standard mechanical rounds and hollow structural shapes for both small and large sizes.

The dual capacity tube mill system was developed by T&H Lemont in conjunction with Searing Industries, USA. Searing Industries approached T&H Lemont with the need to increase production of a wide range of structural products on a single production platform. The dual capacity mill allows for a greater range of production sizes in a minimal amount of floor space. In effect, the dual capacity mill gives a pipe and tube producer the ability to produce a range of pipe and tubing normally produced from two different sized mills.

With a dual capacity mill, the entire entry and exit equipment are designed to be universal; as are the mill bases and drive systems. The "dual capacity" of this mill is realised by two different (size) sets of quick change subplates designed to mount on a single mill base system while utilising a universal drive system. One set of subplate mounted driven stands (T&H Model WU35M-12) was designed for producing "mother" tubes from 1.250" to 5.000" with wall thickness from 0.083" to 0.250". The second set of subplates (T&H Model WU60M-12) was designed to produce "mother" tubes from 3.750" to 8.000" diameter with wall thickness from 0.125" to 0.500".

The distance between the stands was optimised on each set of subplates for the products produced. Each set of subplates included three driven squaring clusters to form the shapes. Production was furthermore increased and change-over times minimised by employing the new T&H autoset automatic stand adjusting system. This motorised, programmable system allows the operator to electronically dial in the roll stands for proven recipes of individual product and gauge changes.

Additionally, this mill was designed to be serviced by an overhead crane system assisting in the change out of the subplates. The subplates are held to the base by a quick release hydraulic clamping system, which allows the subplates to be connected rigidly and precisely to the mill base and, when necessary, disconnected from the base quickly and efficiently.

"The increased capacity of this new mill enhances our ability to meet the needs of our customers and at the same time keeps our plant overhead to a minimum, keeping us extremely competitive in these changing markets," stated Lee Searing, president of Searing Industries.

T & H Lemont – USA
Email: bcharvat@thlemont.com
Website: www.thlemont.com

Large plate roll deliveries


Davi's MAV bending machine

THE expansion of Davi in Latin America counts a new success, with the sale of a large variable-axis plate roll. The machine, which is capable of rolling 10ft wide and $3^1/_8$" thick plate, has been sold to the largest pressure-vessel manufacturer in Ecuador, and is claimed to be the largest plate roll in operation in the country.

The customer is reacting to the sector's trend towards using high resistance steel, an aspect that is making it imperative to update fabricating equipment locally with higher rated machines. The purchase of the machine confirms the trend.

"Once again our innovative variable axis plate roll has been chosen due to the flexibility obtained by horizontal movement of the side rolls and to the upper roll which also moves vertically," commented Orazio Davi, president of Promau. "The result for the customer is virtually perfect flat ends making it suitable for pressure vessels manufacturing at a very high quality and productivity."

Davi has also partnered with other customers in South America. Recently these new partnerships resulted in the sale of another 4-roll Davi machine in Costa Rica. This machine can roll 10ft wide and $3^7/_8$" thick steel plates, and was sold to the largest hydroelectric company in the country.

The Central and South American region is continuing its economic growth and has an ever-increasing need for power. The majority of this increased power demand will come from new hydroelectric resources. These installations utilise a substantial amount of steel pipe made from high resistance, thick walled, steel.

"Davi's 4-roll machine has been chosen by this prestigious customer also due to the fact that our machine requires only a small amount regular maintenance," said Mr Davi. "It does not even need greasing, thanks to the patented technology of the scale free, self-lubricating planetary guides, compared to the previous generation technology plate rolls that still use linear friction guides."

The choice to procure the Davi plate roll was in part made due to the company's ability to offer a full turnkey system. The machine was installed by Davi technical personnel, who took care of the machine assembly, installation, runoff, pre-programming and training of the customer's operators in operating a modern plate rolling machine and the techniques available with the Davi machines.

Davi Promau Group – Italy
Fax: +39 0547 317850
Email: davi-sales@davi.com
Website: www.davi.com

Tube mills from Taiyuan Heavy Industry

TAIYUAN Heavy Industry Co Ltd (TYHI) is the largest supplier of seamless tube plant in China. Since its establishment in 1950, it has consecutively supplied more than 1,000 sets of steel rolling equipment for metallurgical enterprises and other industrial sectors to users from home and abroad.

Seamless tube equipment manufactured by THYI mainly includes piercing mill, hot rolling mill (three roll and two roll), centralised differential reducing mill and reducing mill with separate drive, sizing mill and straightening machine.

In the past decade, TYHI has designed and manufactured Ø140mm, Ø159mm, Ø219mm, Ø273mm, Ø325mm, Ø630mm, Ø720mm & Ø1,200mm seamless steel tube production lines.

In addition, TYHI has produced a high amount of seamless tube equipment such as Ø140mm, Ø170mm, Ø180mm, Ø340mm, Ø460mm in cooperation with SMS Meer, Danieli. It has exported two sets of Ø177 PQF seamless tube production line equipment and one set of Ø340mm FQM seamless tube production line equipment to India.

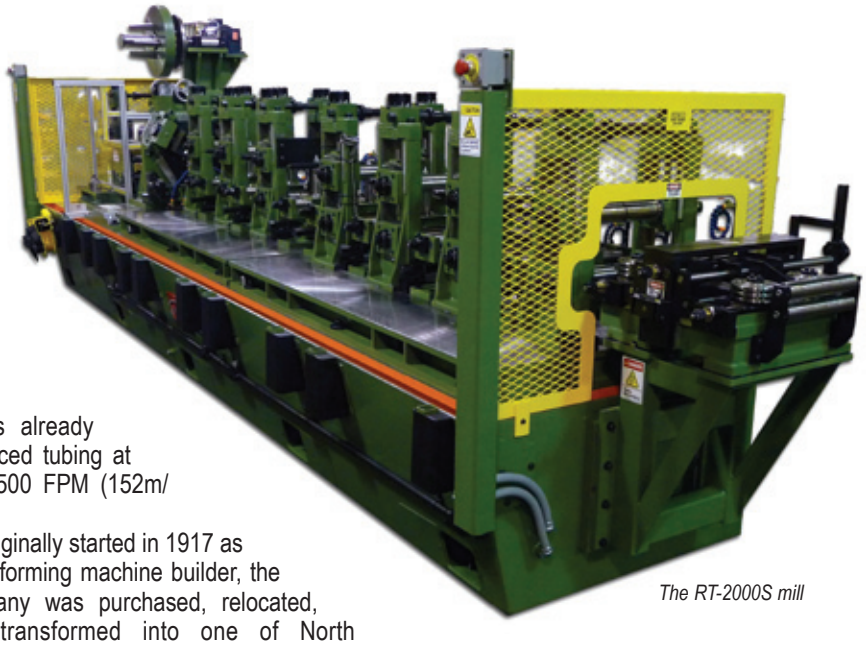
TYHI has also recently developed and supplied Ø180mm three-roll seamless tube continuous rolling mill completely by itself. It becomes the third biggest supplier all over the world for the complete set of hot continuous rolling mill besides SMS and Danieli. TYHI is capable of the design and manufacture of extrusion forming equipment of seamless tube as well. So far it has designed 16MN, 35MN and 63MN steel tube extrusion presses.

TYHI is the largest manufacturer for spirally welded pipe equipment as well as seamless tube plant. So far it has supplied more than ten sets of spirally welded pipe production line, among which one set has been exported to India.

Taiyuan Heavy Industry Co Ltd – China
Fax: +86 351 6360994
Email: janiceemail@163.com
Website: www.tyhi.com

Dual capacity high-frequency quick-change welded tube mill

Tube and pipe mills and roll forming



The RT-2000S mill

RAFTER Equipment Corporation manufactures tube and pipe mills, roll forming machines, cut-off machines, and other related mill machinery. It is able to provide equipment for tube sizes from 0.188" (4.76mm) to 16" (400mm) OD. It has in the past supplied mills using high-frequency induction, TIG/plasma, and laser welding and its equipment has been used for the production of the tubular products including: mechanical, structural, HSS, energy, API, refrigeration, automotive and appliance.

In 2009 it expanded its offering to include strip entry equipment, flying saw cutoffs, and tube bundling and packaging equipment through an overseas partnership. Additional services include rebuilding and upgrading of existing mill equipment of all makes and models.

Rafter's most recent installation was the RT-2000S mill. This high-speed mill is capable of producing mechanical tubing up to 2.500" OD x 0.120" wall (63.5mm x 3.0mm). It has already produced tubing at over 500 FPM (152m/min).

Originally started in 1917 as a roll forming machine builder, the company was purchased, relocated, and transformed into one of North America's premier tube mill manufacturers in 1988. Since this time, it has provided nearly 100 tube mills and many mill accessory upgrades. The company's focus is to provide robust equipment that is simple to operate and maintain. It supports equipment through personalised and dedicated after-sales service and spare parts. By doing all of this, it hopes to give its customers the equipment necessary to be both successful and profitable.

Rafter Equipment Corporation – USA
Fax: +1 440 572 3703
Email: sales@rafterequipment.com
Website: www.rafterequipment.com

ERW spiral welded pipe mills from China

QINGDAO Haokun Heavy Machinery Technology Co Ltd manufactures ERW spiral welded pipe mills, hydrostatic testers, end bevelling machines and also auxiliary equipment such as slitting lines and edge milling machines. At the same time Haokun company can help pipe manufacturing enterprises to do the production process layout, planning and design.

At present Haokun company's ERW specification range is 8"–25". ERW16", ERW20", ERW24", ERW25" and other specifications of the large diameter ERW production line have completed the design and production process and Haokun has developed a JCOE1420 x 30mm x 80 steel grade pipe production line. Spiral welded pipe mills can cover any size between 219mm and 2,800mm. It is divided into external control moulding and internal control moulding from the moulding process. In addition, it is a divided backswing type long machine unit and frontswing type short machine unit of the accumulator pit storing or fly welding tractor type. The products meet API-5L, GB711.1 and GB9711.2 standards.

The hydrostatic tester specification range is 89mm–2540mm. Haokun company has exported a 2800T/D2540 full hydraulic steel pipe hydrostatic tester and other various specifications to India, Malaysia and Iran. End bevelling machine processing pipe diameter range can be from Ø60mm to Ø2,540mm, and it meets API-5L, API-5CT, GB9711.1 and GB9711.2 standards. The diameter range Ø60mm–339.7mm, of which the end bevelling machine is a step loading type high-speed end bevelling machine, can be used to produce petroleum casing pipe and ERW pipe production enterprises.

The slitting line specification range is 1,500mm x 10mm, 1,750mm x 14mm and 2,200mm x 16mm. The specification for the 2,200mm x 16mm can meet two production methods with the longitudinal cutting striping and transecting open flatbed. These products have been used for Wuhan Iron and Steel Group.

The edge milling machines with specifications 1,750mm x 16mm and 2,000mm x 25.4mm were manufactured by Haokun company have been put into use in a spiral welded pipe production line at the Shashi petroleum pipe plant. Currently, Haokun company is designing and making a high-speed strength edge milling machine for an ERW24" machine unit.

Haokun company will do its best to provide the pipe industry science and technology research, packaged design, manufacturing, installation and commissioning, technology transfer, technology consultation, training and other services.

Qingdao Haokun Heavy Machinery Technology Co Ltd – China
Fax: +86 53282 860363
Website: www.haokun.net

Orders for cold rolling mill received

NORTHEAST Light Alloy Co Ltd (NELA), China, has ordered a new CVC® plus aluminium cold rolling mill in six-high design from SMS Siemag. With the new aluminium cold rolling mill, NELA is entering modern production of high-quality aluminium strip products. In addition to various finished products, input stock for foil manufacture will be rolled on the CVC plus six-high stand.

The new SMS Siemag cold rolling mill, which will constitute the central production unit of the works in Harbin, is designed for a capacity of 85,000tpy and processes incoming strips with entry gauges of maximum 8mm and widths of up to 1,900mm. The minimum final gauge is 100µm, and the maximum coil weight 21 tons.

The six-high stand is equipped with CVC plus intermediate-roll shifting and with multizone roll cooling for influencing strip flatness. A hot edge spray system (HES) is provided to influence strip flatness in the strip edge area. The dry strip system (DS) installed in the exit section of the mill ensures that the residual oil on the surface of the rolled strips is kept to a minimum. A coil preparation station, a coil conveyor system and the full range of utility systems complete the mill stand.

SMS Siemag has also received an order from Novelis do Brasil Ltda, Brazil, to supply a new two-stand cold rolling mill for aluminium alloys. The two-stand tandem mill is said to be the first of its type in South America.

The new tandem cold mill will be used for manufacturing can stock for the beverage industry. The products will comprise strip in widths of up to 2,000mm and with a minimum final gauge of 0.15mm. The mill will be designed for an annual capacity of 330,000 tons.

The key components of this high-capacity mill are highly efficient roll bending systems, multizone roll cooling and a hydraulic roll adjustment system. A coil preparation station, an off-line strip inspection facility and a pallet transport system from SMS Siemag complete the rolling mill.

SMS Siemag AG – Germany
Fax: +49 211 881 4902
Website: www.sms-siemag.com

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Carell introduces new 305HV angle rolling machine

CARELL Corporation has introduced the new 305HV (shown with optional CNC control panel) to its angle rolling machine line up.

The Carell 305HV is a three roll, double initial pinch universal bending machine with independent hydraulic adjustment of both lateral bending rolls and powered rotation of all three bending rolls. These versatile units are ideal for rolling standard/special sections plus tube/pipe in mild-structural-stainless steels, aluminium, brass, copper as well as other materials. Machines are furnished with a set of standard universal rolls. The 305HV includes dual LED digital displays to monitor bending roll positions, double pinch geometry which permits pre-bending of leading and trailing ends of the profile without removal from the machine, telescoping modular multi-component roll set specifically designed to bend standard sections including angle leg-in/out and square rectangular tube as well as other shapes in a variety of material types, tri-directional lateral guides with cam rollers for correcting inherent twist when rolling angle leg-in, and it operates in both horizontal and vertical positions.

Carell Corporation – USA
Fax: +1 251 937 0957
Website: www.carellcorp.com

The Carell 305HV

Roll-Kraft sponsors roll forming workshop

ROLL-KRAFT recently participated as the industry sponsor of the Fabricators and Manufacturers Association (FMA) world-class roll forming workshop. Attendees were urged to bring along their questions, drawings, and roll formed parts to the workshop to get answers to problems they were experiencing.

Topics included presentations of basic and more complex roll form systems, metallurgy as it applies to roll forming, tooling installation, use of high strength steels, basic machine applications, lubricants, troubleshooting, and many other subjects.

Gary Summerhill, engineering manager of Roll-Kraft, conducted a class entitled Roll Forming High Strength Steels – A Design Perspective. This class covered the many options of using high-strength steels, including when they are preferred, and a comparison to other commercial grade steels. There was an overview of tooling materials, tooling life, lubrication, equipment, and general information on the advantages and disadvantages of using the various steels.

Roll-Kraft provides tooling, and equipment to the tube and pipe and roll forming industry. Participation and reliance on the well-earned ISO 9001:2000 quality management certification programme has helped customers in more than 50 countries identify Roll-Kraft as a reliable source of high quality products and programmes.

Roll-Kraft also provides a full spectrum of services to roll forming and tube & pipe manufacturers including the design of tooling using FEA Copra software to identify problem areas before manufacturing begins.

Roll-Kraft – USA
Website: www.roll-kraft.com

Laser welded profiles

A SPECIAL line from PM sas, Italy, combines the advantages of the roll forming process with the precision of a laser welding unit. The line allows the production of a wide variety of products, such as automotive profiles, electrical cabinets, buildings, perforated pipes, windows and door profiles.

This solution is composed of three parts: punching and notching press (so it is not necessary to work the piece twice); roll forming line (precision, flexibility and long production life); and laser welding unit for high precision and welding without smears.

With PM's interchangeable cassette system, the forming rolls of a profile can be changed for another in a very short time, while the punching system is flexible and can be changed from the PLC.

PM sas – Italy
Fax: +39 041 5745058
Email: pm@pm-eng.info
Website: www.pm-eng.it

New tube mill installed in Yekaterinburg

ATTL a spol sro, Czech Republic, has installed and commissioned a new tube mill in Yekaterinburg, Russia, to produce longitudinally welded tubes and profiles from steel and galvanised material, 102x5mm.

The mill features new semi-automatic coil end welder and shear NPA, fast change of forming and calibration sections RVS system, and an ALDA Combi flying cut-off which can cut by flying shear for speed or flying cold saw when quality of the cut-off face is of prime importance. The ALDA Combi enables both operations on one machine, with changeover time of around 15 minutes.

The mill includes an Attl AUT 8000 fully automatic bundling machine, and is also equipped with a Thermatool HF welding generator.

Attl a spol has installed a new tube mill in Yekaterinburg, Russia

Attl a spol sro – Czech Republic
Email: attl@attl.cz
Fax: +420 271 960 414
Website: www.attl.cz

Orbital milling cut-off from Oto Mills

THE welded tube market continues to move towards the production of very large and thick tubes. For this industry Oto Mills has developed the new cut-off model TOAC40616, designed specifically for tube lines that require cuts without burr on a wide production range.

If just the thickness of the tube is to be cut, a small diameter blade can be used: this means greater rigidity, lower level of vibrations and consequently improved finishing and longer life of the blades.

The carriage consists of a steel structure that supports the parts making up the cut-off. It is driven by a pair of electric motors with reduction gear that operate just as many toothed pinions engaged in turn with the rack on the bed. The outfeed vice and the outfeed tube guide are fitted on a mobile structure (vice detachment carriage) that moves the tube away from the blades as soon as the cut is completed (with blades still inside the tube): in this way they are protected against feasible scraping/breakages if the tube should move due to internal tensions or to the imperfect alignment of the tube itself or even due to synchronisation errors caused by excessive oscillations in the line speed.

The bed also houses the mobile tube supports: their stroke is based on the stroke of the carriage and in particular, in view of the type of connection of the cables to the carriage, the support moves at half the speed of the carriage, guaranteeing suitable support of the tube throughout the cycle.

The cut-off houses the rotating part on which the four cutting heads and relevant oil-hydraulic clearance reduction cylinders are fitted, which annul vibrations that could possibly arise during the cutting phase.

The drives are installed at the back end of the rotating part, protected from chips and emulsion water, which rotate the blades, as well as the relevant blade traversing mechanisms (by means of linear actuators) and the cable carrying chain.

The vices are designed so that, within a specific shape (round or square/rectangle) they are able to cover the whole dimensional range of the machine without having to re-tool.

What's more, the part of the clamps that comes into contact with the tube is lined with an insert in plastic material to eliminate vibrations that could arise during the cutting phases and also to compensate any alignment anomalies of the tube between the infeed and outfeed vices.

The vice is the quick changeover type: when you need to change profile (for example from round to square/rectangle) the whole vice is removed and replaced with another vice offline, on which the clamps suitable for the new profile to be cut are fitted.

To ensure lasting life of the blades, the cutting parameters used must be suitable for the type of tube being produced (size, thickness and material of the tube).

To help the operator in this choice and to make it easier to enter these parameters, the cut-off is equipped with dedicated software (the cut-off manager).

When you enter the data of the tube and the type of blade (HSS or TCT), the program suggests the best tooth range. This range is based on calculations that take into consideration the shape of the contact range and the filling of the compartment of the teeth.

Once the best blade has been identified, the user selects the type of entrance in the tube and the relevant safety positions, in other words the quick approach and slow approach distances and the penetration inside the tube.

At this stage, the dynamic data are entered, ie the PS (peripheral speed in m/min) and the material removal parameter. The program suggests some default parameters that ensure cutting in safe conditions but that do not optimise the cutting time and therefore the speed of the line. Starting from these, however, the operator can select various types of preset parameters and subsequently modify the values, using the limit curves calculated as reference.

The program also provides: indication of the minimum blade diameter to complete the cut with the parameters selected; and possibility to select operation with two or four blades based on the parameters selected.

The oscilloscope function is also available (optional) that allows you to monitor the current and speed references, throughout all the cutting phases, of the motors, and namely: carriage launch motors, rotation motor of rotating part, blade rotation motors and lade traversing motors.

Oto Mills – Italy
Website: www.otomills.com

Hot and cold rolling complex for aluminium flat products

MA'ADEN-Alcoa has placed an order with SMS Siemag, Germany, for the supply of a complete integrated hot and cold rolling complex for aluminium flat products, including the electrical and automation package. The ambitious greenfield project is being implemented in Ras Az Zawr, Saudi Arabia by the Ma'aden-Alcoa joint venture, which comprises the US aluminium manufacturer Alcoa Inc and the Saudi Arabian mining company Ma'aden.

The annual capacity of the integrated rolling complex is around 400,000t of aluminium strip for the manufacture of beverage cans. The hot and cold rolling mills will commence operation in Ras Az Zawr on the Arabian Gulf at the end of 2012.

SMS Siemag is supplying the complete roughing and finishing mills for the hot rolling mill. The roughing mill comprises a four-high roughing stand which rolls down, in reversing operation, the incoming aluminium ingots of thickness up to 635mm and weight up to 32.5t. The roughing mill also includes one heavy and one light hydraulic crop shear for intermediate cropping and for removing the head and tail ends from the roughed ingot.

The four-stand finishing mill in four-high design rolls the roughed ingot, which has an entry thickness of around 30mm, down to a final gauge of 2 to 7mm in a single pass. In the exit section of the finishing mill, the finished strip is side-trimmed and then taken up by a hot-strip coiler with belt wrapper.

SMS Siemag is also supplying the complete cold rolling mill with coil preparation station in the entry section and an offline strip inspection facility in the exit section. The powerful four-stand tandem mill in four-high design rolls the incoming aluminium hot strip, having a maximum width of 2,100mm, down to minimum final gauges of 0.15mm. The tandem mill is equipped with tried and tested actuators, comprising hydraulic adjustment, positive and negative work-roll bending and CVC® plus technology. These actuator systems ensure optimum strip flatness, strip gauge tolerances and a perfect strip surface.

In a later expansion stage of the works, the plant concept will make it possible to change over to fully continuous mill operation through the retrofitting of various plant components such as a double pay-off reel, welding machine, strip accumulator and carousel reel.

Both the hot rolling mill and the tandem cold mill are equipped with all open and closed-loop control systems that guarantee reliable process control of the fully automated rolling operations. The systems include the Alu-Control automation system, which is part of SMS Siemag's X-Pact® electrical and automation package and specifically designed to meet the process requirements of aluminium rolling. In both mills, Alu-Control covers the processes from level 0 to level 2.

SMS Siemag AG – Germany
Fax: +49 211 881 4902
Website: www.sms-siemag.com

Carell introduces next gen angle rolling

CARELL Corporation has introduced the new 310HV4 with overhead CP swing arm to its angle rolling machine lineup. This machine is capable of rolling 6"x1½" flat bar hard way, 6" Schedule 40 pipe, 5"x5/8" angle leg in and 6"x⅝" angle leg out with standard equipment.

The Carell 3010HV4

It operates in both horizontal and vertical positions. The 310HV4/CPHV-140 is a three driven rolls, double initial pinch universal roll bending machine with independent hydraulic adjustment of both lateral bending rolls and hydraulic powered rotation of all three rolls. Lateral guides are adjustable in all three axes. This versatile unit is ideal for rolling standard/special sections plus tube/pipe in mild-structural-stainless steels and a variety of other materials. Machines are furnished with a set of standard universal rolls.

Standard high quality features include: dual LED digital displays to monitor bending roll positions, rugged, rigid, one piece solid steel weldment frame, normalised and precision machined, larger, high strength steel shafts, heat treated and ground, independent hydraulic adjustment of both lower rolls for double prebending, universal bending rolls with modular components, hardened and wear resistant. variable speed rotation via electronic proportional valves for precision prebending control, multi axis, six way, fully adjustable lateral guides hydraulic powered in all three directions.

Carell Corporation – USA
Fax: +1 251 937 0957
Website: www.carellcorp.com

Fast reliable tube mills with repeatable quality

WHEN thinwall tube manufacturers plan their capital budgets these days, they demand tube mills that not only offer speed, precision, and repeatable quality, but also the flexibility to manufacture a broad array of products. Additionally, the change-over time from one product to another must be proficient.

Even more challenging are today's requirements for change-over speed. Until recently, quick-change tooling subplate systems with self-chucking transmissions seemed to define the "state-of-the-art" and offered tube makers a legitimate 1-hour tool change. Now, however, Mill Masters offers the Elite Duo-form HF Welded Mill that changes between two completely different tube sizes in 30 minutes using a single operator – and most of the work is done with the touch of a button.

Mill Masters' Aluminum Charge-Air-Cooler tube mills are now often designed to also make round manifold tubes and multi-chamber radiator tubes – offering tremendous flexibility from a single tube mill. The company now makes high speed, in-line rotary cutoffs that cut up to 15 tubes per second. Our Dimple Free Zone Dimpling Station lays down 10 discrete dimple patterns per second with tube mill line speed running up to 600 feet per minute. The term "High Speed" has truly been re-defined. Now it receives customer RFQs that specify 200 metres per minute line speed.

Excellence in engineering, quality in manufacturing, and commitment to customer service have been the foundation of Mill Masters' success. However, innovation and constant improvement have been the driving force behind the growth of Mill Masters, Inc since it opened its doors with two employees in 1992. But Mill Masters' story really began 25 years earlier.

Mill Masters traces its roots all the way back to Buffalo, New York in 1967 where Joe McKenica and Eric Gobien responded to the same demand for innovation that our industry experiences today. McKenica Inc. – who was the radiator industry's premier lockseam tube mill supplier – pioneered the first high frequency welded thinwall tube mill that the heat transfer industry had ever seen.

The industry was skeptical at first – soldered lockseam radiator tube had been the industry's bread and butter for decades. Quickly however, the material savings, increased strength, and improved durability of the welded radiator tube made it the standard for automotive and industrial applications around the world. Of course, in the early 1980s, automotive heat transfer made another paradigm change – this time from copper and brass to brazed aluminium construction. And for the next 15 years, the demand for welded seam aluminium radiator tube mills grew rapidly. Following that first welded thinwall tube mill – over the next 30 years, McKenica went on to become the heat transfer industry's leading welded thinwall tube mill supplier.

Mill Masters designs and builds welded mills using high frequency, TIG, and laser weld sources for aluminium, copper and brass alloys, stainless, and many other steel alloys. Mill Master specialises in tube diameters ranging from 10mm to 102mm and wall thicknesses from 0.127mm up to 3mm depending on tube size and material.

Mill Masters offers full turnkey welded cable mill systems including payout and take-up equipment, in-line slitters, capstans, driven rollform and welding sections, in-line corrugators and washing systems, and take-ups. The company recently delivered a fully integrated cable line covering a 4" diameter power transmission cable with a welded and corrugated aluminium jacket around a heavy 3-leg copper core. That cable weighed over 12lbs per foot and the line spanned nearly 200ft.

Whether your company needs an innovative new tube mill with leading-edge technology, spare parts and service for an existing McKenica welded or lockseam mill, or upgrades including new cutoffs, burst testers, dimpling stands – or simply a service call to improve your existing mill performance, Masters looks forward to hearing from you.

Mill Masters – USA
Email: sales@millmasters.com
Website: www.millmasters.com

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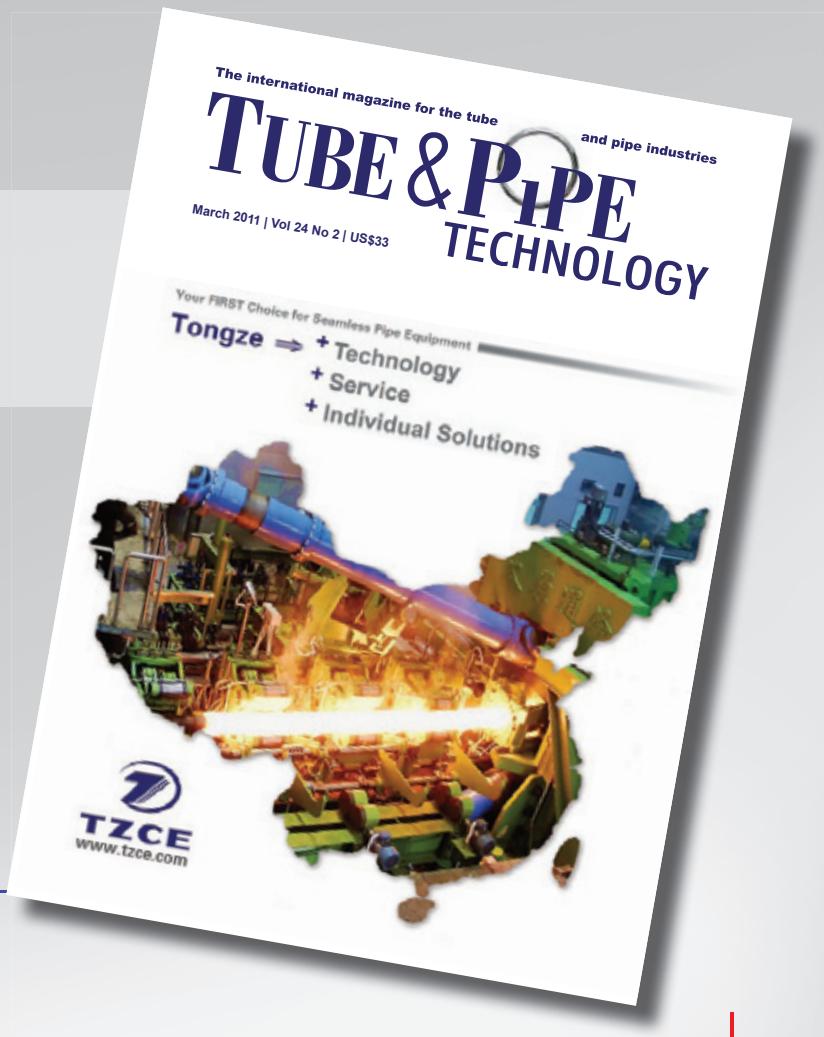

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Enhancements in latest roll forming software

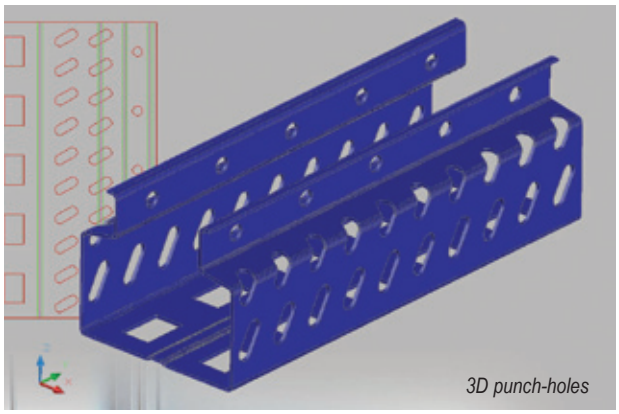
THE latest version of Copra® RF roll forming software from data M focuses on four major features: a 3D punch hole editor for use with pre-punched material; the automatic meshing of pre-punched material; the cloning of rolls; and re-using/recycling existing roll tools.

Copra RF 3D punch-hole editor: Before the meshing of pre-punched material can be performed automatically, it is necessary to define the punched hole shape and punched hole position in the Copra RF design software. With the previous versions this was not possible. The Copra RF software has now been combined with Copra MetalBender 3D, which enables the easy definition of 3D sheet metal parts with any punched hole shape. The punched holes can be defined either in the flat strip, or in the final section. Beneath the integrated library of standard holes, the user can also define punch tool shapes and add them, creating a personal punch tool library. The program also allows the individual stations to be made visible including the punch-holes.

Copra FEA RF punch-hole meshing: With all the information about shape and position of punched holes created with the punch hole editor, the mesh can now be created automatically. Therefore, it is no longer necessary to transfer the information about the punch holes into the MSC.Mentat program, delete the elements in the position of the holes, and drag the nodes into the correct position. A mesh preview is now available, illustrating the automatically calculated mesh with or without holes, and any change in the meshing parameters will update the mesh preview automatically. The preview also shows the number of elements, making it easier to find the optimum constellation.

Copra RF roll design – cloning rolls: To be able and make a fast and reliable FEA calculation, it is necessary to have the roll tools designed in Copra RF. The previous version of Copra RF introduced the possibility to design rolls only with AutoCAD functions to make the design process easier for those who are not working with Copra RF on a daily basis. In Copra RF 2009 all roll design functions work for 'free designed' rolls. This allows an effective combination of using Copra RF and AutoCAD based features.

Copra RF provides a powerful new tool to make design easier: the ability to clone rolls. Rolls that are identical can be cloned automatically. This can be done for individual rolls, for a station or for the complete project. If one roll is modified, all respective cloned rolls are updated automatically. This makes changes in projects with more identical rolls faster, especially for the rolls used in corrugated or trapezoidal sections. As an added bonus, cloned rolls only need to be dimensioned once: identical rolls will not show up again during automatic dimensioning. In the cutting or material list, the quantity of individual cloned rolls is also shown, so there is no need for this to be updated manually.



3D punch-holes

Copra RF Roll Recycling Database: Many Copra RF customers have a few thousand or even ten thousand rolls that cannot be used any more because the respective section is now obsolete or the roll was removed because of signs of wear. If the mean value of a roll is assumed to be €150 and the number of rolls that cannot be used any more is 10,000 pieces, then the customer has a value of €1.5m in stock that can no longer be used. For this reason, data M designed a Roll Recycling Database. In combination with the Copra RollScanner, the customer can now make use of these rolls.

The roll is first scanned, and the scanned contour is directly transferred to the Roll Recycling Database. A rough sketch of the required roll contour needs to be made during roll design. The designer can automatically search for a fitting recycling roll, and the search criteria can be user defined. For the roll retrieval, an oversize in width and diameter can be defined. If a fitting recycling roll is found, it is placed on a layer of its own that can be switched on and off. The respective rolls can be marked with a different line width and/or line colour. The identified recycling roll is linked to the designed roll, and this information is attached to the engineering data, ensuring that the roll already exists and only needs to be reworked.

data M Sheet Metal Solutions GmbH – Germany
Fax: +49 8024 640 300
Email: datam@datam.de
Website: www.datam.de

Pipe machinery from one source

A STRATEGIC alliance between the companies Gräbener Maschinentechnik (Germany), Weldec (Germany) and Fontijne Grotnes (Netherlands) offers turnkey solutions for LSAW pipe mills from one source.

The alliance accumulates the knowledge of each company's expertise. Gräbener is a manufacturer of machines for the fabrication of large pipes; welding specialist Weldec is a subsidiary of the EEW Group; and Fontijne Grotnes has been active in designing and manufacturing mechanical full length pipe expanders for more than 40 years.

To ensure the cleanest possible welding process to join the individual tubes, Gräbener banks on a plate edge milling machine before bending the plate. Circ and long seam milling machines as well as end bevelling machines complete the Gräbener machine portfolio.

For welding in SAW long and circ welding facilities, Weldec provides CNC-controlled inside and outside welding facilities with 1 to 5 wire technique up to 8,000mm outside diameter, 120m component length and 1,000t unit weight. Weldec supplies systems for the non-destructive testing of oil and gas pipes, especially ultrasonic, X-ray digital and hydrostatic testing devices.

Gräbener Maschinentechnik GmbH & Co KG – Germany
Website: www.graebener-group.de

Weldec GmbH – Germany
Website: www.weldec.de

Fontijne Grotnes BV – The Netherlands
Website: www.fontijnegrotnes.com

Seam orientation units

RAFTER Equipment Corporation, USA, manufactures welded-seam tube and pipe mills, roll forming machines, cut-off machines, auxiliary and other related tube and pipe mill machinery. Additional services include rebuilding and upgrading mill equipment.

With the current economic downturn, Rafter's efforts have been mainly focused on mill retrofits and upgrades. Over the last few years, the company has developed a simple yet effective accessory for controlling the location of the weld seam during production on a tube or pipe mill: a seam orientation unit.

One example was installed at a prominent North American facility for the production of up to 5.563" (140mm) OD x 0.375" (9.5mm) API line pipe. The seam orientation unit is used to maintain the proper seam location for subsequent online non-destructive testing. The customer reports that [the machine operators] are very happy with the performance of the [unit]. According to the cut-off operator, who also operates the turkshead [straightener], once they got it adjusted correctly and it was holding the seam between 11 o'clock and 12 o'clock, they have not produced a single piece of crooked pipe. This is extremely out of the ordinary for [them]. They are usually making frequent adjustments to the turkshead to correct [for] crooked pipe.

RT-5500S seam orientation unit

The seam orientation unit features remote powered adjustment that allows the operator to control the seam location from a downstream station. This is beneficial, since the effects of the adjustment are not immediately apparent – it takes a few moments for the seam to relocate itself.

The seam orientation unit is also useful to producers of hollow structural sections (HSS) for locating the weld seam prior to reshaping the tube into various square and rectangular shapes. Some HSS producers require that the weld seam be located on a corner while others may require it to be located on a flat.

Rafter seam orientation units have been successfully installed on smaller laser-weld mills producing austenitic stainless steel tube, as well as larger 10" (250mm) square mills making HSS.

Rafter Equipment Corporation – USA
Fax: +1 440 572 3703
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Arinox concludes production expansion plan

ARINOX SpA, a company of the Arvedi Group, has concluded an important production development and expansion plan consisting of the installation of new production and finishing lines for precision rolled stainless steel thin strip in width 1,270mm.

Arinox stainless steel strip is aimed mainly at sectors of application with high technological content such as the car, chemical, petrochemical, electronics, precision mechanics and biomedical industries.

This important investment plan has led to the installation of a new 20-hi Sundwig rolling mill, an Ebner bright annealing (BA) line with in-line tension leveller, a new Ungerer tension levelling line and new automatic packaging lines serving the new cutting lines.

Arinox, having completed this expansion phase, has now acquired an overall production capacity of more than 50,000 tons/year of precision strip and with the widening of its size range has increased its competitive edge.

Arinox SpA – Italy
Fax: +39 0372 535229
Email: abigail.barker@arvedi.it
Website: www.arvedi.it

Endworking of pipes and tubes by CNC machine tool

ARLA Maschinentechnik GmbH, Germany, builds CNC-controlled endworking machines that are available for single-sided and double-sided machining.

The machine concept is based on a solid frame with one or two precise machining units, including a unique concentric work-holding technology. The machine works like two separate CNC lathes, operating independently for each side. The principal difference is that this endworking concept comprises a fixed workpiece and revolving tools.

All machining units are directly driven by servomotors and are therefore stiff, powerful and designed for high torques. In order to realise several machining steps, the units are built with integrated motor spindles, optionally available with tool changing systems.

Typical applications are OD and ID turning, facing, planing, tapping, bevelling, threading, grooving, chamfering, boring, drilling and milling – in particular for the welding end preparation of pipes and tubes.

The new series of ARLA spindle units can be used either with HSK interface or with integrated facing heads. The machining of complex contours with a single tool system is realised by facing heads that are implemented in ARLA's DX machining units, as used for welding end preparations.

ARLA Maschinentechnik GmbH – Germany
Email: info@arla.de
Website: www.arla.de

Production line equipment and individual machine manufacturer

DALIAN Sage Group, China has four subsidiaries and one institution specialising in designing, developing and producing new tech products, and engaged in designing and manufacturing large metallurgy machinery.

With a design team of almost one hundred middle and senior engineers, the company manufactures pipe mills, cold-rolled forming lines and stainless steel welded pipe lines.

In 1995, Dalian Sage formed a joint venture with a US company with more than 90 years' history in manufacturing HF welded equipment and cold-rolled forming steel equipment. The equipment manufactured by Dalian Sage is sold to most areas of China, USA, Russia, Indonesia, Thailand and other areas of Southeast Asia.

The company's main production line equipment includes ERW mill lines, cold-forming mills, direct changing into square and rectangular pipe mills, stainless steel pipe mills, cross shear mills, pipe processing finishing line equipment and large diameter straight seam TIG welding pipe mills.

Individual machines include uncoilers, levellers, shear and butt welders, vertical/horizontal spiral accumulators, computerised length and cutting machines, pipe flatteners, end-facing and bevellers, tension reducing machines, 4-roll hot sizing machines, edge planers, and hydro testers using backlash radial sealing technique, satisfying API standards.

Dalian Sage Group – China
Fax: +86 411 39318111
Email: sage@mail.dlptt.ln.cn
Website: www.csage.com

In-line gauges for diameter and ovality

THANKS to new developments in high-tech laser optics, Zumbach Electronic has introduced the new ODAC 550 laser scanner with HLF (high-accuracy large field) technology. This technology allows the generation of a highly collimated and accurate measuring field of 550mm (22") without any dead zone. It also means that the tube position in the field has no effect on the readings.

Single axis and multiple axis systems are available, both in static or in oscillating configuration, applicable for hot or cold processes. Applications cover solutions for quality control (NDT) in cold status to hot processes like MPM sizing mills, SRM mills, conveyors, pilger mills, piercing mills, radial forges, extrusion presses and others.

A sophisticated protection/cooling system guarantees reliable operation and minimal maintenance. Other highlights include CSS (calibrated single scan) technology; 1,000 true measurements/s; mach 3 scan speed means no dynamic errors; accuracies within a few 0.01mm; and EPM method/software for polygonal deviations.

Zumbach's Profilemaster® systems are based on the latest technology with laser contouring and CCD camera vision and processing. They capture the full product circumference/section and measure and monitor the relevant profile dimensions, angles and radii.

The range of Profilemaster gauges includes versions for small precision profiles starting from a dimension of 2mm (0.08"), cold formed tubes and profiles as well as medium size products, hot or cold, up to dimensions of approximately 250mm (10").

Depending on process, maximum product temperature and size range, a number of standard models are available. Special systems are conceived and built upon specific request.

Highlights include the latest 'light cut' technology; modular design with one to six laser/camera modules, depending on the type of profiles; high accuracy within some 0.01mm; fully static system; easy 'teach-in' from CAD product files; integrated protection and air cleaning system; and close-to-zero maintenance, with no wear parts.

Zumbach Electronic AG – Switzerland
Fax: +41 32 356 04 30
Email: sales@zumbach.ch
Website: www.zumbach.com

A new type of forming

SAGE, China, a leading manufacturer and supplier of tube and pipe mills and machines in China with 20% international sales, is promoting a new type of forming – Sage Forming (SGF).

After analysing the main ERW forming technologies around the world, Sage finds that each has its own advantages and disadvantages. Sage optimised these technologies and created SGF, which features automatic computer controlled adjustment within 12 minutes without roll changing when changing the pipe specification; and quick roll changing for finishing forming section, squeezing stand, sizing stand and Turk's heads with changing time minimized to 1-2 hours by applying flat sheet structure.

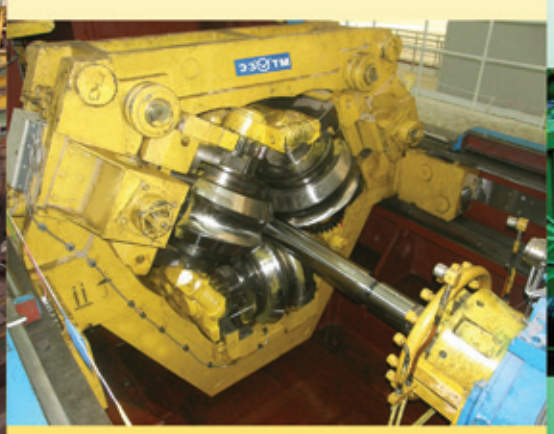
SGF also said that it avoids bumpy edges caused by the large stand's distances in Japan's technology which will affect the forming quality and roll changing for BD stands in USA and EU tech. SGF is suitable for both small gauge and large gauge forming with sufficient edge bending to ensure a good quality of the forming.

Sage believes that SGF is one of the most advanced forming technologies available, which has been successfully utilised in two pipe lines, namely φ630 and φ711, designed and manufactured by Sage. φ711mm straight seam stainless and carbon steel pipe line with wall thickness up to 24mm and 350,000 ton annual output, represents the highest level of Sage technology at present.

Sage, possessing more than sixty sophisticated designers that are the creators of 58 patents, stands ready to take customising orders from China and abroad, pursuing perfection and providing high quality with a very reasonable price to meet customers' specialising requests.

Sage Group – China
Email: sales@csage.com
Website: www.csage.com

HIGH TECHNOLOGIES IN THE FIELD OF ROLLING EQUIPMENT



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OCTG & Pipeline Manufacturing

Oil Country Tubular Goods may be the broadest category in the tube and pipe industry, covering as it does a span from sensitive instrumentation tubing to petroleum pipeline. But physical size is only one factor among many across this spectrum, even to those who design and make tubular products for service in the oil patch, on rigs far out at sea, in terrain as punishing as any on earth.

A section of pipeline in which a man can stand upright, with his raised arms touching only air, is a marvel. The companies reviewed here are aware that, from this behemoth of the desert down to the narrowest drill string, the integrity of that piece of OCTG is wholly dependent on the quality of its manufacture.

Photo: Ritmo SpA

Tri Tool provides critical solutions for international land-based pipeline

The Model 224B Bevelmaster® as the primary weld prep tool for a special land-based pipeline with Inconel lined bore

TRI Tool Services℠ provides international mission critical support such as the equipment implementation for a major petroleum producer in Oman. This two-year project required multi-level support including custom equipment engineering, equipment logistics, and specialised customer training, along with field machining and project coordination personnel.

The customer was confronted with a petroleum transportation problem that would require advanced technical support. Corrosive Hydrogen Sulfide components in raw petroleum, in association with the factors of heat and friction, chemically and mechanically attack and dissolve the inner bore surface of pipelines. This damage can amount to over an inch of dimensional loss per year, and in some instances can be theoretically greater than the original wall thickness. One approach to deal with the problem is to fully line the ID bore of carbon steel pipe with a uniform cladding of Inconel 625 for its proven characteristics of acid resistance and weldability. This requires weld end preparation to ensure that when welding the joint with Inconel filler wire, the root pass provides an uninterrupted corrosion resistant surface. The Inconel welds demanded extreme accuracy and the pipeline sections to be used were known to have a serious out-of-round condition.

The normally ocean-going PFM-816 happily working in the deserts of Oman

The equipment that was selected for this project was Tri Tool's PFM 816 Pipemaster®, the versatile Model 224B Bevelmaster®, and the newly designed Tri Tool® Laser Dimensioning System. Pipeline section ends were precisely ID bored to uniform wall thickness with a PFM 816 fitted with an OD tracking system.

Pipe ends were measured, indexed and cataloged for bore matching with Tri Tool's new Laser Dimensioning System. Weld end preparation was performed immediately prior to welding with the Model 224B. Tri Tool also provided assistance with implementing a mobile welding station that could reliably position the production equipment for optimal prep and weld cycle times.

Tri Tool can support all API 5L piping operations, combining multidisciplinary machine and service technologies for the most demanding applications, anywhere in the world.

Tri Tool Inc – USA
Fax: +1 916 288 6159
Email: b.atkinson@tritool.com
Website: www.tritool.com

BASF and Stopaq join forces in prevention and thermal insulation package for offshore industry

BASF is well known for the Nordstream Offshore Pipeline Project from Russia to Germany. Stopaq has built its reputation around anti-corrosion protection of fieldjoints, risers, spools, land/sea pipes and j-tubes, especially in the Middle East (Safaniyah, Manifa and Karan projects). Both companies have an excellent longstanding reputation, history and track record in the offshore industry.

To better cater to the needs of the offshore clients, the two companies are forming a marketing alliance to offer a one-stop shop for the entire corrosion prevention and thermal insulation package. This will offer the clients a great source for the protection of the valuable infrastructural assets.

The market demands safe, easy and green solutions, that last for as long as possible. That's what the future of the supplied material holds in store.

Mr Lynam, business development manager oil and gas of BASF Polyurethanes, said: "We see preventing corrosion and system integrity as our common mission."

Via this new common system, Stopaq and BASF Polyurethanes can offer more control in all process steps from preparation, application and service to go beyond the design life. JF Doddema, CEO of Stopaq says: "Safety is a big issue and our common responsibility. Dependency on heating guns to apply toxic product must be avoided. Working offshore means operating under harsh conditions. This needs a very applicator-friendly approach."

Both companies understand this very well. Therefore, this alliance offers clients a system which can be easily applied to any difficult to coat object. The system is very cost-effective, simple and easy.

BASF Polyurethanes UK Limited
Email: ian.lynam@basf.com
Website: www.stopaq.com

Italian technology for HDPE gas pipes

THE use of plastics such as HDPE in building and construction offers characteristics that can include flexibility, durability, non-toxicity and higher abrasion resistance. As polyethylene does not allow the growing of seaweed or bacteria, it is highly appropriate for civil infrastructures such as aqueducts.

Ritmo SpA, Italy, manufactures welding machines for plastic pipes. For butt fusion for gas pipes Ritmo recommends its Delta Dragon CNC system, which allows automatic control of the welding process, eliminating operator error. It is available in two models, Delta Dragon 250 CNC and Delta Dragon 315 CNC, and in two versions: SA (Semi-Automatic) with manual removal of the heating plate; and FA (Fully Automatic) with automatic removal of the heating plate.

The gearcase that manages the CNC system is equipped with a compact and innovative plastic casing, which can resist extreme working conditions. Special attention was paid to the connections and the application of military-type plugs. Easy-to-use software and control panel allow access to the most widely used welding standards (UNI, ISO, DVS and WIS). By selecting one of these standards and adding the pipe diameter/SDR, the corresponding welding parameters (pressure, time and temperature) are automatically calculated.

If the welding process about to be performed is not included in the standards listed, it is possible to manually input the welding parameters (diameter, SDR, type of material, welding time and pressure) in the 'out of standard' mode.

In both cases, the machine is able to automatically manage all welding cycle phases, including milling and heating control. At the end of each welding cycle, all data is stored in the in-built memory, with a capacity of up to 600 records. The serial port enables connection to a portable serial printer (in order to obtain an immediate welding report) or to a PC, in which case it is possible to create a welding history database by using the specific Ritmo data management software.

The machines also feature a quick clamp release system, known as SMARTLocK, and milling cutter with safety microswitch. It is also possible to apply lateral rollers, on request. The working range of the machines varies according to the model (both are available in 110V and 230V): Delta Dragon 250 CNC from Ø 75 to 250mm; Delta Dragon 315 CNC from Ø 90 to 315mm.

Ritmo also has a wide selection of models for use in electrofusion, such as the Elektra 800, a powerful and versatile universal electrofusion machine suitable for HDPE and PP couplings (from 8 to 48V), made in compliance with Italian and international standards.

The Elektra 800 has easy-to-use software and control panel, and a large graphic display. It is supplied with an optical scanner/barcode reading system (or optical pen, on request) that allows the automatic reading and setting of welding parameters. Required values can also be input manually. The Elektra 800 has an in-built memory with a capacity of up to 4,000 welding cycles. Data can be downloaded through the USB port and handled on a PC by means of Ritmo Transfer software.

Ritmo SpA – Italy
Fax: +39 049 9901993
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The Delta Dragon 250 CNC in action

InSung

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SMW-Autoblok big bore chucks for OCTG application

SMW-Autoblok Spannsysteme GmbH, a manufacturer of workholding solutions in Germany, has updated and completed its range of chucks for oil country tubular goods (OCTG).

The inventor of the original Big Bore Type BB chuck offers a large product portfolio to cover all applications from standard API or premium pipe to fully automatic machining of couplings in one operation. Open centre chucks up to 560mm through hole for pipe threading and hydraulic indexing chucks for couplings up to approximately 18" are now standardised.

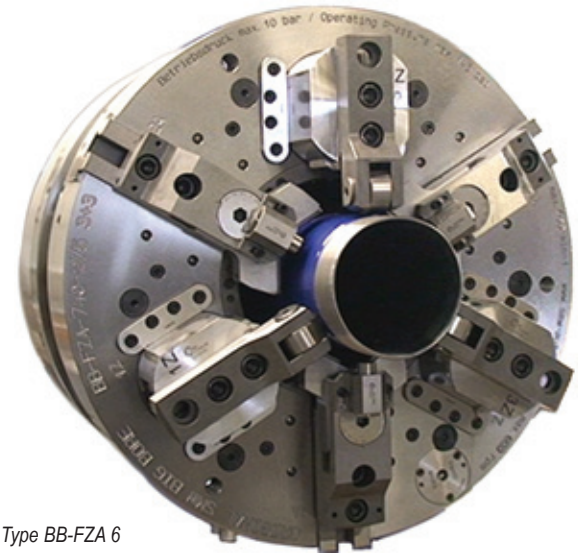
Straight or bent pipe can be clamped for threading by utilising either self centre or compensating jaw chucks. The innovative Big Bore Type BB-FZA 6 jaw sequence chuck with three integrated centring jaws and three compensating clamping jaws, incorporated in the same chuck body, allows a fully automatic clamping sequence for pipe of any quality.

Associated couplings can be machined in only one set up by using the new SMW-Autoblok hydraulic ring indexing chuck Type SF-RAZ. Cutting the thread of both sides of the coupling in one set up guarantee outstanding concentricity and quality.

Robust design with long lifetime and long service intervals minimise the customer's machine downtime. Quick clamping cycles, large jaw strokes and high gripping forces ensure safe and economical clamping of all OCTG products. Various sizes of each chuck model can be supplied as a standard. Therefore, the need for expensive special chucks with long delivery times is eliminated.

SMW-Autoblok offers worldwide turnkey solutions and service to improve the productivity and the product quality of the customer's pipe plants. The brand new catalogue 'Chucks for Oil Country Tubular Goods' is available on request now.

SMW-Autoblok Spannsysteme GmbH – Germany
Fax: +49 7542 405 181
Email: sales@smw-autoblok.de
Website: www.smw-autoblok.de



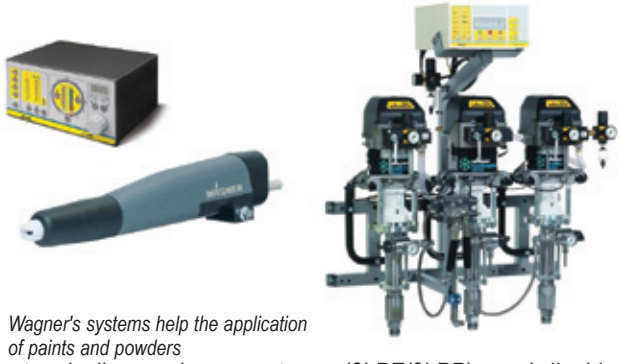
The Big Bore Type BB-FZA 6

Tube, pipe and rebar coating

WAGNER is a manufacturer of high-tech systems and components for the application of paints and powders to surfaces. It supplies to industry, contractors and consumers alike – and has been doing so for more than 50 years.

The company develops, produces and distributes innovative products and solutions based on trendsetting technologies that meet high quality standards. Wagner TubeCoating is a new brand in the field of pipeline and rebar coating and is located in Altstätten, Switzerland.

Its long-term experience of more than 20 years enables Wagner TubeCoating to work together with the customer to find and implement new ideas and solutions.



Wagner's systems help the application of paints and powders

As one of only a few leading suppliers, Wagner TubeCoating offers powder coating plants with recovery systems and associated equipment as well as components for liquid paint applications. Those systems are used for functional coatings for a wide range of oil, gas and water pipelines as well as for structural elements and rebars.

Typical applications for functional coating include: corrosion protection for steel pipes and rebars; one and dual layer FBE coating; epoxy primer and coated adhesive for three layer systems (3LPE/3LPP); and liquid applications for external and internal pipe coating.

Wagner – Switzerland
Fax: +41 71 757 23 23
Website: www.wagner-group.com

TMK acquires stake in Volgograd River Port

TMK, one of the world's leading oil and gas steel pipe producers, has acquired a 25.5% stake in the Volgograd River Port from the Russian State. TMK won an auction held by Russia's Federal Property Management Agency on 16 March 2011.

OAO Volgograd River Port includes several ports along the Volga River. The transaction was valued at approximately RUB 113 million (approximately USD 3.9 million).

"The acquisition of a stake in the Volgograd River Port will allow TMK to improve logistics efficiency at its largest facility, the Volzhsky Pipe Plant, which is located in direct proximity to this transport hub," said Alexander Shiryaev, TMK CEO. "It will also open up additional opportunities to ship our OCTG and line pipes to oil and gas fields in the Caspian Region, which is one of our key markets."

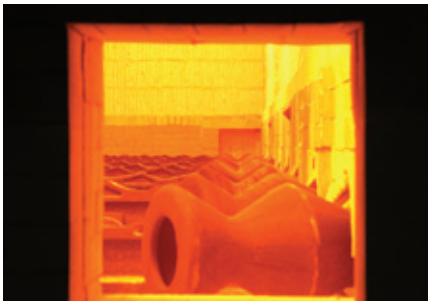
TMK is a leading global manufacturer and supplier of steel pipes for the oil and gas industry, operating 23 production sites in the United States, Russia, Romania and Kazakhstan. TMK has the world's largest steel pipe production capacity, about half of which is dedicated to the production of high margin oil country tubular goods (OCTG). In 2010, TMK's pipe sales totalled approximately four million tonnes, shipped to customers in more than 65 countries.

TMK's ordinary shares are listed on Russia's RTS and MICEX stock exchanges. Its GDRs are traded on the London Stock Exchange, and its ADRs on the OTCQX International Premier trading platform in the United States.

TMK – Russia
Tel: +7 495 775 7600
Email: pr@tmk-group.com
Website: www.tmk-group.com

Walking beam quench and temper system commissioned

CAN-ENG Furnaces International Limited has benefited from an increase in OCTG activity, and has commissioned a new 40tph walking beam quench and temper system for tubing and casing. The state-of-the-art facility processes tubing and casing in API 5CT grades L80/N80 and P110, with future considerations for Q125, in sizes 2.375" to 10.75" OD, in lengths of 28 to 48ft.



The new 40tph walking beam quench temper

The water spray quench technology incorporates OD as well as ID quenching for maximum flexibility. Can-Eng's walking beam austenitise and walking beam temper furnaces utilise an alloy post and beam arrangement and are of a side charge and side discharge configuration.

In addition to this new facility, Can-Eng is pursuing additional contracts in the USA, Canada, Europe and Russia. The demands for API certified N80/L80, P110 and Q125 to address the needs from unconventional gas developments in North America and OCTG requirements for many oil applications have resulted in increased business activity.

The company offers a variety of combustion, quenching and furnace configurations tailor made to users' requirements. Can-Eng supplies all the material handling and industrial furnace equipment, as well as Level II automation on a plant wide scale, integrating various operations from multiple suppliers into a common Level II strategy.

Can-Eng product lines include continuous mesh belt furnace systems, continuous steel long product heat treatment systems, rotary hearth furnace systems, plate quench and temper furnace systems, plate normalising furnaces systems, basketless heat treatment systems (BHTS™), T4, T5, T6, T7 heat treatment systems, plus a wide array of custom furnaces solutions. The company also offers a comprehensive after-market support team that delivers system upgrades, technical support and replacement parts.

Can-Eng Furnaces – Canada
Fax: +1 905 356 1817
Email: furnaces@can-eng.com
Website: www.can-eng.com

OMS adds more qualified weld inspectors to its ranks

PIPE measurement specialist Optical Metrology Services (OMS) Ltd has further expanded its capability to offer comprehensive weld inspection services to its clients. The company has added a further two full-time CSWIP-qualified weld inspectors to the team.

CSWIP is an internationally recognised mark of competence for people engaged in welding and/or inspection related jobs in manufacturing, constructing, operating or repairing high integrity welded structures, plant or components.

As well as qualified weld inspectors, OMS offers advanced video and laser-based measurement tools to enable visual inspection and measurement of weld features in difficult to access structures such as pipe line end terminations (PLETs), manifolds, and critical oil and gas pipeline sections. OMS has recently completed an extensive weld inspection scope on the BP Galapagos project.

Richard Gooch, director of technology at OMS Ltd commented: "Having more qualified weld inspectors on our team means that in addition to our video and laser-based pipe measurement services, we can support clients by assessing the significance of any weld defects that we discover using these tools. We can then make recommendations as to whether these weld defects should be accepted or rejected against the specification."

OMS has added two new pipe inspectors to its ranks

OMS Ltd – UK
Email: denise.smiles@omsmeasure.com
Website: www.omsmeasure.com

这一栏目专为我们的中文读者介绍国际管道行业的最新技术和行业新闻的综合信息。

钣金加工线

FASPAR SpA公司是意大利米兰区机器制造商。以前是压力机生产商，自1977年以来公司一直在制造完整的钣金加工线。

在4,000平米的生产区域，FASPAR的主要产品包括纵剪线、平整线、矫直线和定长切割线（带旋转式、飞切和机械剪切）、表面精整线、给料和冲压/冲孔线、拉伸平整线、滚压成形线以及夹芯板生产线。

被加工材料可以是低碳钢/碳钢、镀锌钢、彩涂钢、不锈钢、铝、钛、或铜。

FASPAR的定制产品用于钢材服务中心、汽车工业、白色家电产业和建筑业。该公司是国际集团，如ThyssenKrupp Group、Sassoli Group、Sandvik、Metecno Group、Ugine & Alz

超过300套FASPAR机器被意大利、欧洲、俄罗斯、亚洲、南北美洲和非洲的广泛的用户所使用。

安装在乌克兰的碳钢纵切生产线

FASPAR SpA – 意大利
传真: +39 02 9471611
电子邮件: faspar@faspar.it
网址: www.faspar.it

高速坡口机

Protem US-HSB系列用于高速加工管道坡口、表面和扩孔。

该机器从内夹紧系统开始到工具架旋转以及工具进给是全液压驱动的， 即可用于车间预制PFM，也可用于现场轨道焊的坡口加工。

该机器可重复执行任何高质量焊接几何形状准备，从标准钢管到一些最特殊的，像不锈钢、超双相钢以及其他常用于现代焊接的领域的钢管。

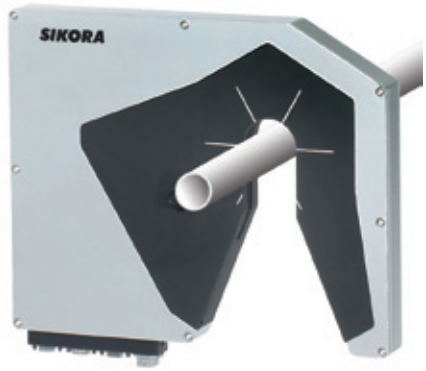
他们的提升支架使他们便于运输和定位内部将加工坡口的管道。因内部有自动定心液压夹紧装置，该机器只需一名操作工就可操作。

两个内部轮廓跟踪工具架同时在工具架板上旋转来进行坡口加工，饰面和/或扩孔。如需，所有准备都能在任何椭圆管上同时、高速地完成，使钝边宽度一致，优化现代轨道焊高质量坡口形状。

Protem SAS – 法国
传真: +33 4 75 57 41 49
电子邮件: contact@protem.fr
网址: www.protem.fr

可靠的表面凹凸度在线检测

凭借LUMP 2000-系列，Sikora公司推出了独特的技术，用于软管和管道生产期间表面凹凸度的非接触式检测。LUMP 2000装置的核心是先进的双传感器技术。该系统能精确检测产品表面的不符合点，即使是很高的线速度也可。



来自Sikora的LUMP 2035 T可进行可靠的表面凹凸度检测

2轴探头适合直径0.5到10毫米以及0.5到25毫米的产品。此外，Sikora还提供用于产品直径0.25到10毫米以及0.5到35毫米的3轴型号。还提供用于检测5微米表面凹凸度的特殊型号，可检测的产品尺寸为0.1至0.5毫米。

凭借LUMP 2010 T，Sikora可提供额外的面向未来的技术，用于检测透明材料的表面凹凸度。探头适用于直径0.25到10毫米的产品。

Sikora AG – 德国
传真: +49 421 48900 90
电子邮件: sales@sikora.net
网址: www.sikora.net

旋压偏心和斜轴管端成形

美国Hess Industries有限公司提供旋压成形机，用来产生偏心和斜轴管端形状。这一过程由一个夹持工件和一个含成形轧辊的旋转头组成。为形成一个与管道中心轴偏离或偏心的缩减的管端形状，夹具将工件向偏置轴移动，同时成形轧辊来缩减管端直径。

同样的方法被用来生产倾斜角度的管端形状，生产通过驱动夹紧的工件，同时成形轧辊向计划好的斜轴成放射状移动来完成。典型应用包括汽车和卡车排气零部件以及有限或受限空间用的催化转换器。通常的管道旋压成形是按管道中心线完成的。

旋压成形过程使基材，如气体、液体或电力过滤元件将插入到管道，终端成形被旋转向下附到流管上。

旋压成形不需要标签以及焊接端成形减少工具和制造成本，同时增强了部件质量。管道旋压成形技术目前应用于汽车、暖通、过滤、海洋和其他行业。

Hess也在美国、欧洲、中国和印度提供机器工艺开发和样机研究服务。

Hess Industries – 美国
传真: +1 269 683 1775
电子邮件:
sheffer.rick@hessindustries.com
网址: www.hessindustries.com

Larikka整新了公司

LEO Larikka自二十世纪七十年代以来为管道预制世界带来了很多创新解决方案，用于管道组成部件如三通和多头管的制造。

目前，Larikka的公司形象已经历了重大革新。在更新公司的品牌标识时，仔细考虑了公司的名字。以前的公司名字Lacol从来未得到过品牌价值和市场内的强烈认可，而Larikka这个名字享受了这些。因此，决定将公司名称改为Larikka。新公司名称和更新标志是为了创造更现代的外观、反映Larikka在管状零件曲边、切割和焊接上的技术创新。

更新后的标志以大写字母显示公司的品牌名(Larikka)，其中熟悉的蓝色字母L，代表了Larikka自二十世纪七十年代以来的视觉品牌形象。先前的方形标志也已做成了一个圆，传递了Larikka技术在加工管形部件中的内部方法。

Larikka – 芬兰
网址: www.larikka.com

小型切割机

德国Rolf Schlicht GmbH公司开发和交付了按客户需要构造的切割机。灵活性的设备提供了很多好处，尤其是刚性型材，如由硬PVC或ABS制造的扫描仪带，在这些领域用户正寻求快速干净地生产，无需不管是在挤出生产线内部或外部的昂贵的后续处理。

这台新机器拥有一个履带横向进给装置RB-600/100，该装置配有停止/起动或连续操作，还有一个检测产品的传感器系统，而且能够将剩余工件返回到设备。这台机器允许自动操作，操作者的唯一任务就是放置型材。

一个预热站完成所需的预热，这样就可以干净地进行切割，无白色破坏。在停车期间，预热站自动运行到停止位置，来避免型材过热的风险。

旋转切割机MC-80 提供一种干净、准确的切割，且无毛刺。排放系统将切割片送入各自的调试盒。

Rolf Schlicht GmbH – 德国
传真: +49 4067 99 4211
电子邮件: info@schlicht-gmbh.de
网址: www.schlicht-gmbh.de

AutoSet轧辊调整快速更换轧机

T&H Lemont 在北美装运了一套WU20H-11型高频快速更换、高频焊接轧机。

WU20H轧机管道尺寸范围为外径0.5" 到2.5"，壁厚0.03"到 0.16"的圆管。与圆形管材一起，该轧机还将设计和加工成能生产相关形状管道的机器。机器生产速度将达到600fpm。

为能以这样的速度进行生产，入口系统将包含一个T&H Lemont水平储存机。该水平储存机将有足够的存储来确保所有结束焊缝能在不中断轧机生产的情况下完成。这种紧固的转盘设计将提供维护最少的长的服务寿命。

为增加管道生产率和提高管道质量，该轧机配有许多一流的装置。为最小化轧辊调整时间，该机器配有AutoSet自动轧辊调整系统，该系统利用专利的绝对编码器技术来实现高度准确的可重复设置。

一个彩色触摸屏界面用来根据以前存储的设置从管道规格菜单中选择轧机设置。操作者将进入管道或管尺寸ID，除了从此种尺寸管道先前的生产中进入的实际环隙外，频幕还将显示公称环隙。该机架在触摸频幕时自动调整这些位置，而且每个机架都是显示在触摸屏上的。

操作者能从触摸屏上做0.001"增量的小的调整。一旦实现最好的设置，数据就可以存储作为新的产品规格。该系统能储存100+独特的轧机设置。

绝对编码器能“关机”保留位置信息，而且从不需要“置零”程序。比如，如果一个调整是在系统停机状态下手动完成的，则开机时，系统将自动识别这一新的位置。取代昂贵的伺服电机驱动，该系统配有标准的交流矢量驱动，代替驱动机架的手动调整。该AutoSet系统标准配置包括一个以太网接口和用于数据采集的网络服务器。

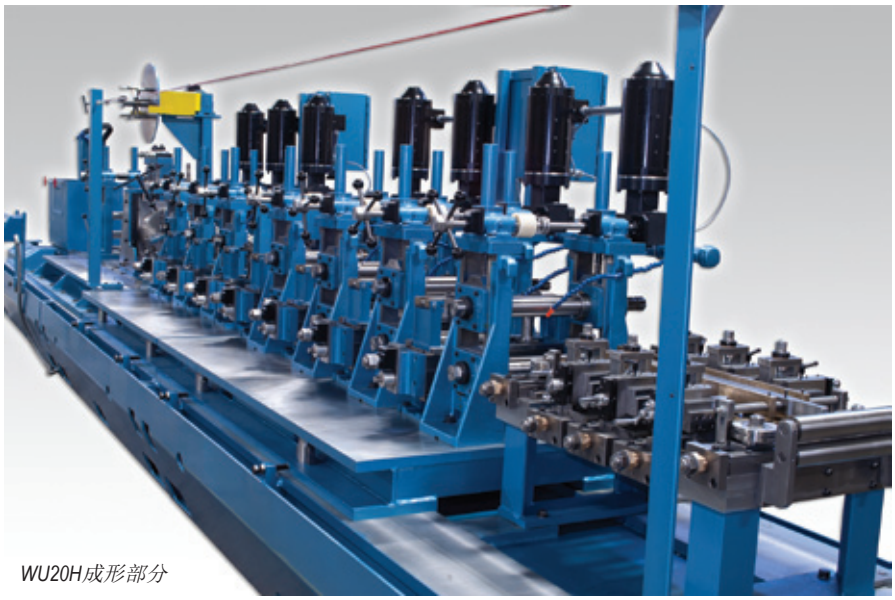
该轧机包括一个完整第二套排筏，用于从一个尺寸到下一个尺寸的快速工具更换。这个第二套排筏装入T&H Lemont AutoSet轧辊调整系统。

处理AutoSet自动轧辊调节系统外，该轧机还配有T&H Lemont Pro Display生产率显示系统。该系统提供信息，在一个大的平板频幕监控器上显示主要度量，如轧机速度、生产水平、停机时间和正常运转时间。

目标生产率和实际生产率比较将不断显示出来。所有数据都被记录到内存，并输出到中央计算机进行分析。此外，该系统将显示任何工厂PC上的信息，向主管和管理人员显示文字信息停机警报，和电子邮件转移。

为补充完整生产系统线，T&H Lemont向管子管道行业提供各种组件和服务。服务包括管轧辊设计，轧机调整，和操作咨询。T&H Lemont提供的组件包括焊机、切断机、录入设备、储存机、焊缝定位架、焊接箱、边缘调节器、焊缝嵌接系统、矫直系统、单点调整系统、去窝机、轧辊、锯片、爪和轴。

T&H Lemont – 美国
传真: +1 708 482 1801
电子邮件: sales@thlemont.com
网址: www.thlemont.com



WU20H成形部分

Unifit被Van Leeuwen授予“信的过的厂商”

目前世界排名11位，年产2580万吨的土耳其最大的原钢制造商Unifit AS公司是无缝钢管管件和法兰制造商，成立于2005年，在本国的钢铁行业起着重要的作用。

土耳其领先的无缝钢管供应商Burak Boru Group集团宣布其成员Unifit AS公司已被国际工艺品批发商Van Leeuwen Pipe and Tube Group集团在成功的外部审计后列入了批准的厂商名单(AML)。

在全球拥有多样分销网络的最大的钢管和管件经销商之一被列入Van Leeuwen Pipe and Tube Group集团的批准的厂商名单标志着公司对质量方针的关注。这个批准对Unifit来说是很重要的一步。与最大的工业管道和管件经销商之一的具有声望的合作对公司是一个很好的证明，而且创造了新的合作机会。

“Unifit公司主要向西欧、中东欧、中东和土耳其语共和国出口，属于CE/PED、 ISO 9001-2008和AD2000 Merkblatt认证，而且在国内和国外市场有所不同。” Burak Boru 和Unifit Boru 公司的外贸经理Okan Bozkurt评价到。

此外，姊妹公司、土耳其最大的无缝碳钢管供应商Burak Boru AS公司将提供所有Unifit产品系列 ，即使是在市场动荡期和价格波动时，可提供整套高质量管系列。

在2008年底2009年初的全球危机期间，Unifit很好的将危机转化为日益增加生产能力的优势。Unifit牢记客户的需要和要求，增加了生产工具新的生产线，提高了生产能力。有了新的半自动/全自动弯头感应机器、新的油压冷成型三通和异径管机器以及管帽成型机，生产能力增加到800吨每月。公司目前正在植入生产锻钢法兰用的锻造机。一旦完成对所有系列和所有标准


Burak Boru是领先的无缝钢管经销商

以其一流的技术安装的工厂和经验丰富的职员，公司可生产高质量标准的Unifit品牌产品。所有Unifit产品都是按PED/97/23/EC规定－ 附录 I, 4.3章节要求制造的。除了这个认证外，Unifit产品得到了AD Merkblatt 2000批准。有了新的机器，公司已生产了符合最常见标准的


来自Unifit的产品

广泛产品，如EN、 DIN和 ASTM标准，包括无缝和焊接钢弯头、等径三通、异径三通、同心异径管和管帽。

Burak Boru和Unifit Fittings在70,000m²的区域进行生产经营活动，其中30,000m²被覆盖，靠近高速路和货运港口，可提供物流优势。公司基地在土耳其，是European Custom Union联盟的成员，而且正在为成为欧盟的永久成员进行谈判，因此将像其他欧洲国家一样得益于财政程序。

Burak Boru公司，在无缝钢管领域占主导地位，以股票和销售量交易，一直在支持很多工业部门，包括汽车、暖通设施、施工和造船工程，在钢铁行业已有27年的经验。

Unifit AS – 土耳其
传真: +90 216 593 04 09
电子邮件: info@unifit.com.tr
网址: www.unifit.com.tr

Burak Boru AS – 土耳其
电子邮件: info@burakboru.com.tr
网址: www.burakboru.com.tr

不锈钢带材储存机

随着使用激光焊接系统生产不锈钢管工厂的日益普及，这已促进增加加工速度，现在需要建立一个拥有足够能力的储存系统，用来连接带材头/尾，从而取代腔式或循环储存系统。这就是 Oto Mills 公司创造FBS Inox储存机的原因，这是公司凭借30多年此类装置生产经验开发而来的。

除了能提供Oto Mills储存机已被验证的优点外，FBS型拥有一系列增加的定制特征，专门开发用于不锈钢。

尤其，所有接触带材的轧辊和表面都经过了特别处理，因此，它们能保持材料表面的完好无损。而且，一个专门的优化储存的控制系统可防止带材刮伤和毁坏，同时还能保持要求以适合进给存储机后面任何生产线——即使是过时的，而且需要大量时间准备和连接带材的——的方式连接卷材所需的能力。

FBS Inox储存机基本是由形成两个同心圆内Inner Drum和Outer Drum的两组轧辊组成。

内筒是固定的，同时装载筒围绕其轴旋转。

带材由开卷机解开，由夹送辊以高于进给线的速度装载到机器里。在装载筒旋转时带材通过装载轧辊收回。除了拉拔带材外，装载轧辊在机器装载或倒空时还将其从装载筒送给到内筒。

当带材从管道成形线拔出，离开内筒，绕中心安装的轧机组转，并在入口和出口之间的不对称缝隙内由入口和出口轧辊以及斜轧辊拉出来。

在设备操作时，带材从已储存带材的两个卷（内部和外部）内几乎无摩擦的出来。因此，从储存机中拉出材料所需的力相对较小。

带材由在轴承上旋转的侧导辊限制在两端。任何宽度和厚度（在机器操作范围内）的带材都可以储存下来。

但是，带材的厚度和宽度必须适当成比例，这样尺寸上薄的且小的带材储存性能在很大程度上取决于带材生产材料类型。

Oto Mills – 意大利
网址: www.otomills.com

精致管道搬运

长且薄型不锈钢管的搬运是非常难的事。这就是只有少数公司能提供一个管道运输系统来确保高处理能力且不损坏管道的主要原因。

Reika GmbH & Co KG是这些公司中的一个，其在精整线领域的经验在一条集成了无损检测线的全自动精整线的构造中得到了证明，该精整线是为Scandinavia最大的不锈钢管制造商提供的。

客户的目的是用该生产线运输直径25毫米长度30米内换热器高级不锈钢双相钢管。这些管道需要非常小心的搬运，不止是因为它们尺寸的原因，而且还因为他们是抛光处理过的。

Reika构造的所有自动精整线是高度专业化的生产用系统，只需很少的人力。这种专门的运输系统是用于纵向以及交叉运输的，包括许多的应用，如矫直、加工、管道标识和各种检测应用。复杂的材料追踪系统确保加工能力和材料识别。

这条线是由Reika设计来满足客户的具体要求的，比如，将专门的解决方案集成到管道返回和批量作业区域中。整个生产线的构造只需要6个月。

Reika的产品范围是广泛的，尤其是精整线领域。它包括热弯、冷轧和纵向焊接管道，热弯棒材和精密钢棒。根据客户要求，矫直、检测、分开、倒角和打捆生产步骤集成到精整线中。这也包括各种服务，如因优化策略或定制概念实现的输出最大化。根据Reika的经验，通过自动缺陷切割实现的单个管长的优化和样品、管端以及最终长度的考虑，减少了2 ~ 3%的废料。

Reika精整线可处理10到610毫米直径，1到50毫米壁厚。棒材精整线制造用于10到180毫米直径。

Reika GmbH & Co KG – 德国
传真: +49 2331 9690 36
电子邮件: sabine.gerstkamp@reika.de
网址: www.reika.de

Huaigang产品质量上升

Huaigang Special Steel Co Ltd有限公司是江苏沙钢集团的一家公司，向德国Hilden的Freidrich Kocks GmbH & Co KG公司下了订单，将对其现有的棒材轧机进行现代化。这次现代化的目的是通过植入Kocks三辊减径和定径机组来提高产品质量，从而巩固公司的市场地位。

新的减径和定径机组能容纳四个三辊机架，公称轧辊直径为215毫米。它可在现有的由18个2高高压机架组成的十年Danieli Morgårdshammar初轧机和中轧机后面的600.000吨每年的辊轧机内作为精整机组来实现。这个三辊机组将在冷却床上轧制13毫米到22毫米Ø的直棒材。

RSB能从初轧机和中轧机的仅一个道次系列中轧制出来，从而大大减少所需的供料器数量。任何想要完成的整个空间范围，可以以任何想要的顺序以最少的轧辊组进行生产，而且仅需要很少的机架更换。

Kocks供应范围包括三辊减径和定径机组，带自动快速机架更换，道次和导辊远程控制调整以及快速轧辊更换轧辊车间设备和CAPAS——用于三辊机架轧辊和导辊装置精确调整的计算机辅助系统。

Friedrich Kocks GmbH & Co KG – 德国
传真: +49 2103 54 028
电子邮件: v.d.heiden@kocks.de

现场拉力试验机

新的McElroy现场拉力试验机使承包商和管道安装工能够在现场快速精确的检测高密度聚乙烯(HDPE)熔接缝。

在过去，熔接缝质量保证检测需要切割管线的一个完整接缝部分，并将试件送到工地外的试验室进行。检测结果将在几小时或几天后返回。

另外一种常用的检测方法是回弯试验，需要特殊的工具和程序在厚壁管道上安全的进行检测。

现场拉力试验机的一个手动泵系统安全的检测从2" IPS (63毫米) 以及更大的管道取样。现场拉力试验机还包含一个安在管道上的模板，该模板通过使用钻子和往复式锯子来取试件。然后将试件插入到手动泵拉力试验装置内，进行破坏性的试验，检测接缝合格或不合格。

“回馈来的信息是现场拉力试验机是一个令人兴奋的新产品，因为市场上没有像这样的，“McElroy总裁Chip McElroy评价到，“该设备的魅力在于它足够轻，以致可以装在一台敞篷小型载货卡车上，带到现场进行检测，可以快速决定熔接缝质量是否合格。”该装置正在申请专利，但现在通过McElroy的销售网络在销售。

McElroy – 美国
传真: +1 918 831 9256
电子邮件: fusion@mcelroy.com
网址: www.mcelroy.com

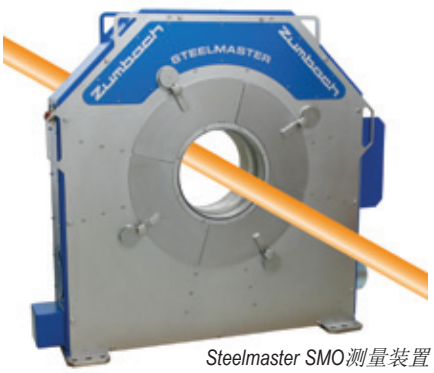
用于韩国棒材轧机的新直径测量系统

ZUMBACH Electronic得到了韩国POSCO Pohang制造厂订购10套Steelmaster直径/轮廓测量系统的合同。这些新系统将更换部分现有测量仪或完成公司#1、 #2和#3号棒材轧机加工部分未装配的地方。

所有家测量仪配备了6个高速激光扫描仪（在六个轴内），每秒能进行6000个校准的测量，以及拥有最新的硬件和软件概念。这些系统将通过以太网全部网络化，以及拥有POSCO的物料流和质量控制系统。

这些零维护小型测量仪计划于2011年早期交付。自2008年以来，POSCO在中间部分已经运行了很多类似的Steelmaster测量仪。

Zumbach Electronic AG – 瑞士
传真: +41 32 356 04 30
电子邮件: sales@zumbach.ch
网址: www.zumbach.com



Steelmaster SMO测量装置

FEM analysis of a pipe forming process

Sven Renkel – SMS Meer GmbH, Germany

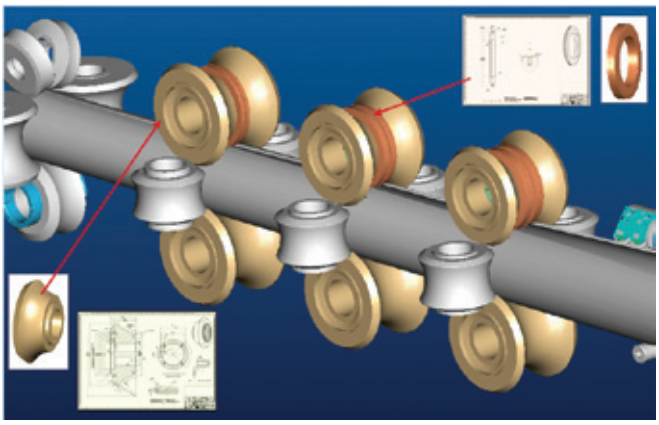
Introduction

The comprehensive parametric 3D design of welded tube plants using the Pro/Engineer Wildfire 3.0 (M230) CAD system from PTC offers SMS Meer not only collision analyses and an almost perfect design system, but also an outstanding interface to other systems, such as Finite Elements Method systems.

The linking of FEM systems to the design data is therefore the next logical step under these preconditions.

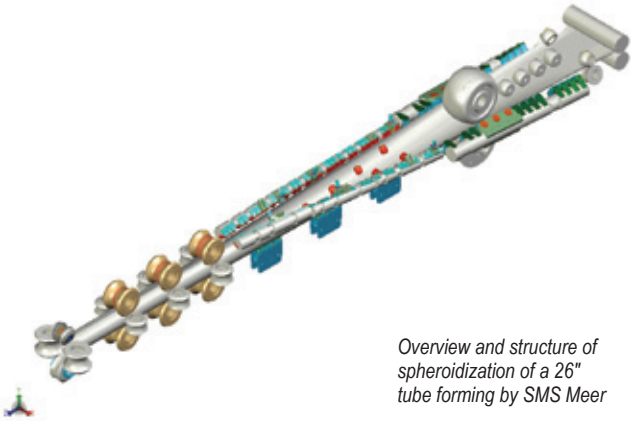
In addition to independent FEM simulations, SMS Meer now integrates its simulation technology deep into die CAD environment of its design work. The use of FEM computations therefore becomes expedient even during the development of new plants and when designing new concepts.

It has thereby been discovered that particularly for the compilation of the simulation data, it is of benefit to follow this route since all the necessary data are already available in 3D format at SMS Meer.



Continuous parametric data consistency from the 3D model of calculation models to the production drawing

Calibration path with quick-change stand



Overview and structure of spheroidization of a 26" tube forming by SMS Meer

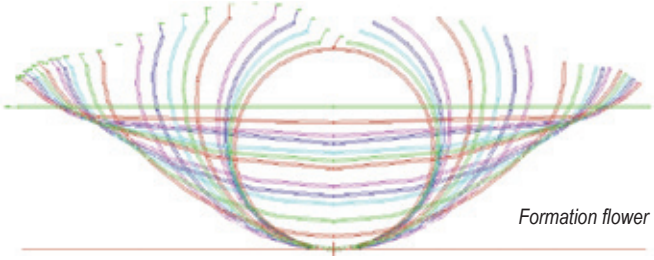
Pro/ENGINEER links geometric data and positions right up to special settings across various departments within the company. All the data are available in real time via the PDMLink 9.1 (M020) system and are already merged there. It is therefore expedient to use these structures and to also make them available for the simulation.

An extensive benchmarking took place at SMS Meer in 2009. The simufact.forming system was found to be best in all areas at that time, and it was soon discovered that the system also has a high integration capability.

Present practice

Pipe forming processes are already computed using the finite elements method today. Of course there are discrepancies between the computer model and the situation in practice. The computations are performed using an optimised MSC.MARC solver. The grid is a hexahedron grid over several layers, depending on the thickness of the strip. In practice single-layer models proved to represent a good time/benefit compromise. Machine and roll data are put in via a 2D-CAD system, in some cases via prefabricated masks or tables.

The rolls rotate – they are defined as sliding bodies. As friction can be basically taken into consideration only through conversion calculations, friction is not often used in practice as it leads to relatively unfavourable and often also unrealistic results. Material data of the different steels are only taken into consideration with respect to their yield strength. Flow curves are assumed only of standard materials. It becomes clear here that such a computation cannot image the full scope of the bending process.



Formation flower

Advanced new approach by SMS Meer

It was first clear that an important goal should be to create a FEM computation model as realistic as possible, as demanded from every FEM computation. For this reason more information was to be processed than to date in order to further improve the previous results. Not that the results of the previous computations could not be used – quite the opposite: In order to get to this point, a great deal of development work first had to be invested in the new computations. But if this new route was to be taken, the results at the end should preferably surpass the old results.

SMS Meer is in constant contact with plant owners and checks the results of the computations. Measurements on current products and comparisons with the simulation data had already proved that the computation closely images the reality. Due to the interaction of the various plant components on the endless strip, a relatively long computation element (18m) was selected in addition to the boundary conditions.

Kinematics

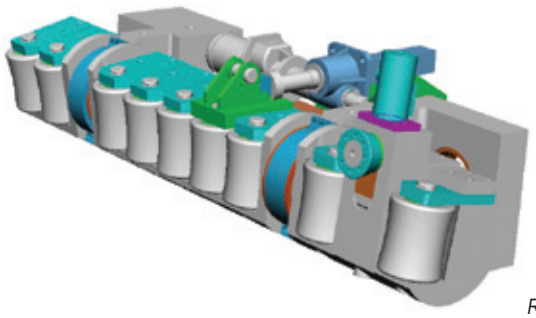
In a computation, the rolls should behave exactly as they do in reality. The rolls were therefore defined as rotating bodies. The rotational axes are defined directly in the simulation software. With the surfaces of the rolls, the friction is also taken into consideration with the Coulomb friction model.

Drag and drop

An important initial, however, was not the computation proper, because the future computation was to be carried out essentially with MSC software as before. After all, in the past valuable information was often gained from the computations.

In this step a method was developed in which the contact geometries – ie the contact geometry of all the rolls, including the strip – could be transferred directly to the simulation environment in both dimension and position. It is therefore now possible to implement a flexible and unrestricted change in the machine properties. It is now no longer necessary to input the complete positioning and the roll geometries as these are already available in the CAD system. No matter how complex the position of the forming elements may be, a single mouse click is sufficient to position them precisely. Complex or even exotic plant components now require no additional modules. Laborious manual input of coordinate values in tables is also no longer necessary. Transfer errors are thus also reliably ruled out.

Sample material for realistic flow curves



Roller-beam

Flexibility in the design

For a manufacturer of plants and machines it is important to be able to try out completely new and unprecedented ideas. The possibilities of a 3D system are unlimited, and just as unlimited are now also the possibilities for testing these systems.

Material

A realistic simulation is only expedient with data from practical applications. Particularly when not only a qualitative, but also a quantitative analysis is required, it is crucial to use the right flow curve. The plastic deformation is computed with the plasticity model of a cold forming process using Ludwig's equation:

$$\bar{\sigma} = \max\left(S, A+C\,\bar{\varepsilon}^{N}\right)$$

A further goal should therefore be to use flow curves previously obtained for the materials actually used as the basis for the forming process. Here SMS Meer can call not only on a huge collection of data, but also on long-standing contacts to institutes in this field. In some cases the material samples are sent directly by the customers to SMS Meer.

Conclusion

With this new concept the computations of SMS Meer come considerably closer to reality than using common computations available on the market. This encourages us to continue along this path and confirms that our approaches are correct. Today the simulation computation at SMS Meer even integrated into the 3D design work is not only easy and logical to use, but also completely freely configurable thanks to its structure. Three elements are successfully combined: 3D-CAD, FEM and the real process.

SMS Meer GmbH – Germany
Fax: +49 2161 3501862
Email: sven.renkel@sms-meer.com
Website: www.sms-meer.com

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INDUSTRY

Sikora at the Chinaplas 2011

SIKORA AG, manufacturer and worldwide vendor of measuring and control technology for the hose and tube industry, will attract attention with the presentation of cutting edge technology at the Chinaplas in Guangzhou/China.

A highlight on the SIKORA-booth is the new X-RAY 6000 series for the measurement of eccentricity, wall thickness, inner and outer diameter and ovality at hose and tube extrusion lines. The X-RAY 6000 includes XLL-X-ray tubes (eXtra-Long-Life tubes) and provides a measuring rate of 1 to 3 Hz (optional 10, 100 Hz).

Sikora is also showcasing the new ULTRATEMP 6000 for online temperature measurement of the melt of plastic materials in the hose and tube extrusion. Besides temperature measurement, the device detects inhomogeneities in the melt.

Another highlight on the SIKORA-booth is the LENGTH 6000 for non-contact online measurement of produced lengths of hoses and tubes. For this method, the product image and its movement are defined and thus the speed and the produced length calculated.

At the Chinaplas, SIKORA will introduce the second generation of its successful diameter LASER gauge heads. The new LASER Series 6000 includes a number of technological innovations, one being a measuring rate of 2.5 kHz.

Компания Sikora на выставке Chinaplas 2011

Компания SIKORA AG, производитель и известный в мире поставщик технологий для измерения и контроля труб и шлангов, рассчитывает привлечь к себе внимание с помощью презентации технологии резки на выставке Chinaplas в Гуанжоу, Китай.

Главным экспонатом на стенде компании SIKORA станет модель серии 6000 для измерения разностенности, толщины стенки, наружного и внутреннего диаметра с помощью новой рентгеновской установки X-RAY 6000 в линиях прессования шлангов и труб. Модель серии X-RAY 6000 включает рентгеновскую трубку с длительным сроком службы и обеспечивает измерение в диапазоне частот от 1 до 3 Гц (по заказу до 10, 100 Гц).

Компания Sikora также продемонстрирует новую модель прибора ULTRATEMP 6000 для измерения температуры расплава пластмасс в линии прессования шлангов и труб. Кроме измерения температуры, это устройство определяет степень неоднородности расплава.

Еще одним новым экспонатом на стенде компании SIKORA станет устройство LENGTH 6000, предназначенное для бесконтактного измерения длины производимых шлангов и труб в линии стана. Благодаря этому методу определяются изображение и движение изделия и, таким образом, рассчитывается скорость и произведенная длина.

На выставке Chinaplas компания SIKORA представит второе поколение лазерных толщиномеров для измерения диаметра. Новая серия LASER Series 6000 включает ряд технологических нововведений, одним из которых является измерение при частоте 2,5 кГц.

Sikora在2011年中国国际塑料橡胶工业展览会

SIKORA AG公司是软管和钢管行业测量和控制技术制造商和全球供应商，将在中国广州举行的国际橡塑展上展出高精尖技术来吸引眼球。

Sikora展位上的亮点是软管和钢管挤出生产线上的新型X射线6000系列壁厚、离心率、内外径和椭圆度测量仪。X-RAY 6000系列包括XLL-X-Ray管子测量仪（超长使用寿命钢管），可提供1到3赫兹测量率（有10, 100赫兹可选）。

Sikora也将展示用于软管和钢管挤出线塑性材料熔体在线温度测量的新型ULTRATEMP 6000仪。除了温度测量外，该设备还检测熔体内的不均匀性。

Sikora展位上的另一个亮点是用于软管和钢管生产长度非接触式在线测量的Length 6000仪。对于这种方法，产品图像和其移动被确定，因此速度和生产的长度被计算出。
在国际橡塑展上，SIKORA将介绍其第二代成功的直径LASER测头。这种新型LASER Series 6000系列包括很多技术创新，其中一个是测量速度达到2500赫兹。

Sikora AG – Germany
Fax: +49 421 48900-90
Email: sales@sikora.net
Website: www.sikora.net

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Beta LaserMike Germany office moves to new location

BETA LaserMike, a provider of precision measurement and control solutions, has moved its German office in the Beratgerstrasse to a new location.

The new Dortmund office will provide ample business facilities for customer and vendor meetings, sales, administration, customer service, and training, as well as other business functions. The company's phone, fax and email address will remain the same.

"After seven years at the same location, we have outgrown our current facility," said Richard Snaith, director of sales for Beta LaserMike's EMEA markets. "The new, larger office better accommodates our current operation and future goals as we expand to better serve the needs of customers in growing markets such as on-line gauging, tube and pipe, wire and cable, metals, and other sectors."

Beta LaserMike is a global organisation committed to the innovation, design, manufacture and service of precision measurement and control systems for a wide range of non-contact measurement applications, including building products, non-woven materials, paper, plastic, wire and cable, fibre optics, pipe and tube, primary metals, and dimensional metrology.

Офис компании BETA LaserMike в Германии переезжает в новое помещение

Компания BETA LaserMike, поставщик средств точного измерения и контроля, переводит свой офис в Германии на улице Бератгерштрассе в новое помещение.

Новый офис в Дортмунде будет обеспечивать заказчиков и поставщиков всеми средствами содействия бизнесу, осуществлять сервис для заказчиков и их обучение, а также осуществлять другие задачи в области развития бизнеса. Номер телефона, факса и электронный адрес компании останутся без изменения.

«После семи лет работы в старом офисе мы сильно разрослись»,- сказал Ричард Шнайт, директор по продажам компании Beta LaserMike на рынках Европы, Африки и Ближнего Востока.«Новый большой офис лучше приспособлен для решения наших текущих и будущих задач более качественного обслуживания наших заказчиков на таких растущих рынках, как измерение в линии станов при производстве труб различного назначения, проволоки и кабеля, металлов, а также в других секторах промышленности».

Компания Beta LaserMike – это всемирная организация, которая занимается разработкой и внедрением новых методов и систем точного измерения и контроля для широкого диапазона применения бесконтактного измерения, включая строительные материалы, нетканые материалы, бумагу, пластмассы, проволоку и кабель, оптическое волокно, трубы различного назначения, высококачественные металлы и различные виды измерений.

Beta LaserMike Germany办公室搬迁

精密测量和控制解决方案供应商BETA LaserMike公司将其在Beratgerstrasse的德国办公室搬到新的地方。在多特蒙德的新办公室将为客户和供应商会议、销售、管理、客户服务、培训,以及其他业务功能提供充足的商务设施。公司的电话、传真和电子邮件地址将保持不变。

“在同一个地方呆了7年后，我们现有的设施已经不能满足需要，” Beta LaserMike 的中东和非洲地区市场营销总监Richard Snaith说，“新的、更大的办公室能更好适应我们现有的业务和未来的目标，因为我们会扩大，在不断增长的市场内，如在线测量、管道、电线电缆、金属以及其它行业，更好的为客户的需求服务。” Beta LaserMike是一家全球性组织，致力于各种非接触式测量应用——包括建筑产品、无纺布材料、纸张、塑料、电线电缆、光纤、管道、原料金属和度量衡仪器——的创新、设计、制造和精密测量服务以及控制系统。

Beta LaserMike Germany
Fax: +49 231 758 9333
Email: sales@betalasermike.com
Website: www.betalasermike.com

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Tenaris trusts in Danobat again

TENARIS and Danobat have signed another contract for capital equipment at the pipe finishing facilities in Campana, Argentina.

The contract covers the replacement of two old Cridan machines with the latest high efficiency pipe threading lathes manufactured by Danobat. The machines are being equipped with the latest technology in order to reinforce the premier finishing capability of the plant.

Danobat is a global solution provider of OCTG pipe finishing and coupling manufacturing. The company is a single source supplier for machine available with the parts handling and/or automation, and tooling and process development. Machines can be tailored to the user’s production and budgetary requirements for medium and high production applications.

Danobat is one of the largest machine tools manufacturers in Europe, and is part of the machine tool division of the Mondragon Corporation, one of the most prestigious Spanish industrial holdings. The Mondragon Corporation has a workforce of nearly 100,000 people, and a turnover of more than €15 billion.

Компания TENARIS снова сотрудничает с компанией Danobat

Компании TENARIS и Danobat подписали еще один контракт на поставку основного оборудования для линии отделки труб на завод в Кампану, Аргентина.

Контракт предусматривает замену двух старых станков компании Cridan на новые высокопроизводительные станки для нарезки резьбы компании Danobat. Станки снабжены самой современной технологией, которая способствует повышению производительности установки отделки.

Компания Danobat - известный во всем мире поставщик оборудования для отделки труб нефтяного сортамента и производства муфт. Компания является поставщиком, осуществляющим комплексное обслуживание станков, от транспортировки и/или автоматизации, до инструмента и совершенствования процесса производства. Станки могут быть изготовлены по заказу в соответствии с технологическим процессом пользователя, а также бюджетными требованиями для средних и крупных производств.

Компания Danobat является одним из самых крупных производителей инструмента в Европе и частью подразделения по производству механических станков компании Mondragon Corporation, которая является одной из наиболее престижных промышленных холдингов Испании. Корпорация Mondragon насчитывает около 100 000 сотрудников, а ее товарооборот составляет более 15 млн. евро.

Tenaris再次依靠Danobat

TENARIS和Danobat签署了另一份为其在阿根廷坎帕纳的管道精整设备购买固定设备的合同。
该合同涵盖了用Danobat制造的最新的高效管螺纹车床更换两台旧的Cridan机器 。这些机器将配备最新的技

术来加强设备重要的精整能力。
Danobat是全球石油管材精整和连接头生产解决方案供应者。公司是单一来源的供应商，提供部件搬运和/或自动化机器、加工和工艺开发。机器可为中、高端生产应用按用户生产和预算要求量身定制。
Danobat是欧洲最大的机床制造商之一，是西班牙最著名的工业集团之一Mondragon Corporation集团的机床分部。Mondragon Corporation集团有近10万职工，营业额超过了150亿欧元。

Danobat – Spain
Fax: +34 9437 43138
Website: www.danobat.com

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Order for 12,000 rolls

PROLIFIQUE Rolls Pvt Ltd is a roll and tooling manufacturing company based in Northern India, with experience of manufacturing rolls over a period of 15 years. Around two years ago the company's brand name was changed to Prolifique Rolls when new management took charge of the manufacturing facility.

The company provides quick delivery and uses high quality material imported from Europe. Over the last two years the company has received numerous orders from reputed international firms based all over Europe, North America, Africa and South East Asia. Its manufacturing facility uses the latest CNC turning centres, imported from Germany, to deliver high quality and precision end products that are used in various sectors, including auto and bicycle industry, construction, engineering, petroleum, boiler and heat exchanger and conveyor industry.

Prolifique Rolls recently received a large order of approximately $3.5 million to manufacture more than 12,000 rolls for an Indian OEM for one of the largest steel producers in the country, currently on a massive expansion. Prolifique Rolls has seen a robust growth of 100% in the last two years and as a result is expanding its manufacturing capacity to maintain the growth pattern.

Заказ на 12000 валков

Компания PROLIFIQUE Rolls Pvt Ltd является производителем валков и инструмента. Она расположена в Северной Индии. Она имеет более чем 15-летний опыт в производстве валков. Около двух лет тому назад название компании было изменено на Prolifique Rolls в связи со сменой руководства.

Компания быстро осуществляет поставки и использует высококачественный материал, который она импортирует из Европы. За последние два года компания получила многочисленные заказы от известных зарубежных фирм из Европы, Северной Америки, Африки и Юго-Восточной Азии. На производственном оборудовании используются самые новые токарные многоцелевые станки из Германии для производства высококачественной точной конечной продукции, которая используется в различных секторах промышленности, включая производство автомобилей и велосипедов, строительство, машиностроение, нефтяную отрасль, производство котлов, теплообменников и конвейеров.

Компания Prolifique Rolls недавно получила большой заказ на сумму примерно 3,5 млн. долларов на изготовление более 12000 валков для индийского поставщика комплексного оборудования для одного из крупнейших производителей стали в стране, который в настоящее время значительно увеличивает производство. Компания Prolifique Rolls за последние два года имела стабильный рост производства на 100% и, как результат, расширяет свои производственные мощности для удовлетворения растущего спроса.

12,000轧辊订单

PROLIFIQUE Rolls Pvt Ltd公司是总部在印度北部的轧辊和模具加工公司，有着超过15年的轧辊制造经验。大约两年前，当新的管理部门负责制造设施时，公司品牌名改为了Prolifique Rolls。
公司提供快速交货并且使用的是欧洲进口的优质材料。在过去的两年，公司收到了来自欧洲、北美、非洲及东南亚等国家和地区知名国际企业的大量订单。其制造设备使用的是最新的数控车削中心，包括汽车和自行

车行业、建筑、工程、石油、锅炉、换热器和输送行业。
Prolifique Rolls最近收到了一份价值近350万的大订单，将为目前正在进行一次大规模扩张的印度最大的钢铁生产商之一的一家印度原始设备制造商生产12000多个轧辊。Prolifique Rolls在过去两年里出现了100%的强劲增长，因此公司正在扩大生产能力来维持增长模式。

Prolifique Rolls Pvt Ltd – India
Fax: +91 129 4159717
Email: tchaudhary@prolifiquerolls.com

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Unifit awarded 'approved manufacturer' status by Van Leeuwen

WITH Turkey now the world's 11th largest producer of raw steel, with an annual output of 25.8 million tons, Unifit AS, a manufacturer of seamless steel pipe fittings and flanges established in 2005, has an important part to play in country's steel industry.

Turkey's leading seamless steel pipe stockist, Burak Boru Group, has announced that its group member Unifit AS has been included in the approved manufacturing list (AML) of the international industrial distributor Van Leeuwen Pipe and Tube Group, following a successful external audit.

To be listed in the AML of The Van Leeuwen Pipe and Tube Group, one of the largest distributors of steel pipes and fittings with a diverse distribution network around the world, is a sign of the company's attention to the quality policy. This approval is an important step for Unifit. Prestigious collaboration with one of the largest industrial pipe and fittings distributors is a good reference for the company and creates new collaboration opportunities.

"Unifit, exporting mainly to Western Europe, Mid-East Europe, the Middle East, and Turkic Republics, belongs CE/PED, ISO 9001-2008 and AD2000 Merkblatt certificates and shows a difference in the domestic and foreign market," commented Okan Bozkurt, foreign trade manager of Burak Boru and Unifit Boru companies.
In addition, sister company Burak Boru AS, Turkey's largest seamless carbon steel pipe stockist, supplies all of Unifit's product ranges and, despite unstable market periods and fluctuating prices, can provide the entire pipe range with highest quality.

During the global crisis period at the end of 2008 and the beginning of 2009, Unifit did well to convert the crisis situation into an advantage for increasing production capacity day by day. Bearing in mind necessities and demands of its clients, Unifit has added new lines to its production pool and increased its production capacity. With new semi/fully automatic induction machines for elbows, new oil pressure cold forming tees and reducer machines, and cap forming machines, production capacity has increased to 800 tons per month. The company is now implanting forging machines for the production of forged steel flanges. Once the test production finishes for all range for all standards (EN, DIN, ASTM) the company will start mass production.

With its state-of-the-art technology installed factory and experienced staff, the company manufactures its Unifit branded products with high quality standards. All Unifit products are manufactured in accordance with Directive PED/97/23/EC – Annex I, Chapter 4.3. In addition to this certification, Unifit products are approved by AD Merkblatt 2000. With new machines, the company already produces to the most common standards, such as EN, DIN and ASTM, with a wide product range that includes seamless and welded steel elbows, equal tees, reducing tees, conc. reducers and caps.

Burak Boru and Unifit Fittings conduct activity on a 70,000m2 area, of which 30,000m2 is covered, close to highways and cargo ports, providing a logistical advantage. The companies are based in Turkey, which is a member of the European Custom Union and in negotiations for permanent membership of the European Union, and so benefits by fiscal procedures the same as European countries.

Burak Boru, occupying a leading position in the sector of seamless steel pipes, trading with its stock and sales volume, has been supporting many industrial sectors including automotive, HVAC installations, construction, and naval architecture, with the experience of 27 years in the steel sector.

Компания Unifit получила подтверждение статуса надежного производителя от компании Van Leeuwen

Компания Unifit AS, производитель бесшовной стальной трубопроводной арматуры и фланцев, была создана в 2005 году. Она играет важную роль в сталеплавильной промышленности Турции, занимая 11 место среди крупнейших производителей стали в слитках, и имеет годовой объем производства 25,8 млн.тонн.

Компания Burak Boru Group, которая является ведущим в Турции трейдером бесшовных стальных труб, объявила, что компания Unifit AS, которая входит в группу компаний, включена международным промышленным дистрибьютором – группой distributor Van Leeuwen Pipe and Tube Group - в список производителей, успешно прошедших независимый аудит.

Компании, перечисленные в списке Van Leeuwen Pipe and Tube Group, одного из крупнейших дистрибьюторов стальных труб и фитингов, имеющего разветвленную торгово-распределительную сеть во всем мире, отличаются особым вниманием, которое уделяется качеству производимой продукции. Для компании Unifit такое подтверждение является важным шагом. Престижное сотрудничество с одним из крупнейших промышленных дистрибьюторов труб и фитингов является хорошей рекомендацией для компании и предоставляет новые возможности для сотрудничества.

«Компания Unifit, которая экспортирует продукцию в основном в Западную Европу, Средневосточную Европу, на Ближний Восток и Тюркские республики, имеет сертификаты CE/PED, ISO 9001-2008 и AD2000 Merkblatt, что выгодно отличает ее на внутреннем и зарубежных рынках», прокомментировал Окан Бозкурт, менеджер по международным продажам компаний Burak Boru и Unifit Boru. Кроме того, филиал компании фирма Burak Boru AS, крупнейший в Турции трейдер, продающий со склада бесшовные трубы из углеродистой стали, поставляет весь сортамент продукции компании Unifit, и, несмотря на периоды дестабилизации рынка и колебания цен, может обеспечить поставку всего сортамента труб самого высокого качества.

В период глобального кризиса в конце 2008 и начале 2009 года компания Unifit превратила кризисную ситуацию в преимущество для увеличения эффективности производства изо дня в день. Компания Unifit, учитывая запросы и требования своих клиентов, добавив в свой производственный резерв новые линии и увеличив производственные мощности. Благодаря новым полуавтоматическим и полностью автоматическим индукционным машинам для производства колен, новых холоднодеформированных тройников для нефтяных трубопроводов и переходников, а также автоматов для формовки заглушек, производство увеличилось до 800 тонн в месяц. В настоящее время компания внедряет ковочные машины для производства кованых стальных фланцев. После окончания экспериментального производства всего сортамента в соответствии со всеми стандартами (EN, DIN, ASTM), компания начнет серийное производство.

Благодаря современной технологии, внедренной на заводе и квалифицированному персоналу, компания производит высококачественную продукцию под торговой маркой Unifit. Вся продукция компании Unifit производится в соответствии с директивой PED/97/23/EC – приложение I, глава 4.3. Кроме этой сертификации продукция компании Unifit сертифицирована в соответствии с AD Merkblatt 2000. Компания уже производит на новых машинах продукцию, которая соответствует большинству стандартов, таким как EN, DIN и ASTM. Широкий ассортимент продукции включает бесшовные и сварные стальные колена, тройники с одинаковым диаметром, редукционные переходники и заглушки.

Компании Burak Boru и Unifit Fittings осуществляют свою деятельность на территории 70000 кв. м, 30000 кв. м из которой находится под крышей. Территория находится рядом с магистралями и грузовыми портами и имеет полное материально-техническое обеспечение. Компании находятся в Турции, которая является членом Европейского таможенного союза и ведет переговоры о постоянном членстве в Европейском Сообществе, и, таким образом, выигрывает от использования тех же налогово-бюджетных процедур , что и европейские страны.

Компания Burak Boru, которая имеет 27-летний опыт работы в металлургической отрасли и занимает лидирующую позицию по продажам со своего склада в секторе бесшовных стальных труб и товарообороту, оказывает поддержку многим промышленным отраслям, включая автомобильную,

строительную и кораблестроение, а также при сооружении установок для нагрева, вентиляции и кондиционирования воздуха.

Unifit被Van Leeuwen授予“信的过的厂商”

目前世界排名11位，年产2580万吨的土耳其最大的原钢制造商Unifit AS公司是无缝钢管管件和法兰制造商，成立于2005年，在本国的钢铁行业起着重要的作用。

土耳其领先的无缝钢管供应商Burak Boru Group集团宣布其成员Unifit AS公司已被国际工艺品批发商Van Leeuwen Pipe and Tube Group集团在成功的外部审计后列入了批准的厂商名单(AML)。
在全球拥有多样分销网络的最大的钢管和管件经销商之一被列入Van Leeuwen Pipe and Tube Group集团的批准的厂商名单标志着公司对质量方针的关注。这个批准对Unifit来说是很重要的一步。与最大的工业管道和管件经销商之一的具有声望的合作对公司是一个很好的证明，而且创造了新的合作机会。
“Unifit公司主要向西欧、中东欧、中东和土耳其语共和国出口，属于CE/PED、 ISO 9001-2008和AD2000 Merkblatt认证，而且在国内和国外市场有所不同。” Burak Boru 和Unifit Boru 公司的外贸经理Okan Bozkurt评价到。

此外，姊妹公司、土耳其最大的无缝碳钢管供应商Burak Boru AS公司将提供所有Unifit产品系列 ，即使是在市场动荡期和价格波动时，可提供整套高质量管系列。

在2008年底2009年初的全球危机期间，Unifit很好的将危机转化为日益增加生产能力的优势。Unifit牢记客户的需要和要求，增加了生产工具新的生产线，提高了生产能力。有了新的半自动/全自动弯头感应机器、新的油压冷成型三通和异径管机器以及管帽成型机，生产能力增加到800吨每月。公司目前正在植入生产锻钢法兰用的锻造机。一旦完成对所有系列和所有标准
以其一流的技术安装的工厂和经验丰富的职员，公司可生产高质量标准的Unifit品牌产品。所有Unifit产品都是按PED/97/23/EC 规定– 附录 I，4.3章节要求制造的。除了这个认证外，Unifit产品得到了AD Merkblatt 2000批准。有了新的机器，公司已生产了符合最常见标准的广泛产品，如EN、 DIN和 ASTM标准，包括无缝和焊接钢弯头、等径三通、异径三通、同心异径管和管帽。

Burak Boru和Unifit Fittings在70,000m2的区域进行生产经营活动，其中30,000m2被覆盖，靠近高速路和货运港口，可提供物流优势。公司基地在土耳其，是European Custom Union联盟的成员，而且正在为成为欧盟的永久成员进行谈判，因此将像其他欧洲国家一样得益于财政程序。
Burak Boru公司，在无缝钢管领域占主导地位，以股票和销售量交易，一直在支持很多工业部门，包括汽车、暖通设施、施工和造船工程，在钢铁行业已有27年的经验。

Unifit AS – Turkey
Fax: +90 216 593 04 09
Email: info@unifit.com.tr
Website: www.unifit.com.tr

Burak Boru AS – Turkey
Email: info@burakboru.com.tr
Website: www.burakboru.com.tr

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Official start of new ThyssenKrupp Steel works in Alabama

ON 10 December 2010 the official opening of the new integrated works complex of ThyssenKrupp Steel USA and ThyssenKrupp Stainless USA took place in Calvert, Alabama. The main supplier of the plants and equipment of ThyssenKrupp Steel USA was SMS Siemag, Germany.

The supply scope included a high-performance hot-strip rolling mill with an annual capacity of 5.3mn tons of steel strip, a combined pickling line and tandem cold rolling mill, a continuous pickling line, an innovatory acid regeneration plant, four hot-dip galvanising lines with two furnaces and an offline skin-pass mill. In the stainless steel section the SMS Siemag supply scope included a hot-strip pickling and annealing line.

The plants and facilities erected by SMS Siemag will enable ThyssenKrupp Steel USA to produce a very wide range of steel strip. The main customers are the domestic appliances, construction and tube manufacturing industries as well as the automotive industry, in particular the large car makers in close geographical proximity in the south of the USA.

The core component of the new plant complex is the high-performance hot-strip rolling mill with a capacity

of 5.3mn tons of strip. The mill produces strip of high-quality steel grades, including multiphase steels and high-strength grades as well as around 1mn tons of stainless steel strip each year.

The complete electrical and automation system was tested and optimised under the Plug & Work scheme at SMS Siemag during the construction phase of the works. The operator training sessions were able to start well ahead of commissioning and so also contributed to a rapid run-up phase.

The pickling line/tandem cold mill supplied by SMS Siemag is said to be the most powerful of its kind, with an annual capacity of 2.5mn tons. Cold-rolled strips that are subject to particularly stringent surface-quality demands are able to run through the offline skin-pass mill.

In addition to the pickling line/tandem cold mill, 1.1mn tons of hot strip can be treated in the continuous pickling line. The acid in both sections of the plant is conditioned by means of an innovatory acid regeneration plant. The hydrothermal conditioning technology developed by SMS Siemag is characterised by reduced emission values, energy savings and low operating and maintenance costs.

For the further processing stages, SMS Siemag supplied four hot-dip galvanising lines. The lines are designed to be highly flexible, with their annealing furnaces, coating equipment and temper mills. A wide range of corrosion-protected strip products with tailor-made properties are manufactured on the lines.

For the stainless steel complex, SMS Siemag supplied a high-output annealing and pickling line for the endless processing of hot-rolled stainless steel strips. On this line, consisting of an annealing furnace, mechanical scale breaker and the pickling section, hot strips of stainless steel grades are pre-treated for further processing in the cold rolling mill.

Официальный пуск в эксплуатацию нового завода компании ThyssenKrupp в Алабаме

10 декабря 2010 года в г. Калверт, штат Алабама, состоялась церемония официального открытия нового комбината компаний ThyssenKrupp Steel USA и ThyssenKrupp Stainless USA. Основным поставщиком установок и оборудования для компании ThyssenKrupp Steel USA стала компания SMS Siemag, Германия.

Объем поставки включал высокоэффективный прокатный стан для производства горячекатаного штрипса с годовым объемом производства 5,3 млн. тонн стального штрипса, комбинированная установка, включающая линию травления и стан тандем холодной прокатки, непрерывную линию травления, современную установку регенерации отработанной кислоты, четыре линии горячего цинкования с двумя печами и стоящий вне линии стана дрессировочный стан. В отделении для производства нержавеющих труб объем поставки компании SMS Siemag включал линию травления горячекатаного штрипса и линию отжига.

Оборудование, установленное компанией SMS Siemag, позволят компании ThyssenKrupp Steel USA производить очень широкий ассортимент стального штрипса. Основными заказчиками являются местные предприятия трубной, строительной и автомобильной промышленности, в основном крупные производители автомобилей, находящиеся в непосредственной географической близости на юге США, а также производители бытовой техники.

Ключевым агрегатом нового комбината является высокопроизводительный стан для производства горячекатаного штрипса с объемом производства 5,3 млн. тонн. На стане производится штрипс из высококачественных марок сталей, включая многофазные и высокопрочные марки стали, а также около 1 млн. тонн штрипса из нержавеющей стали в год.

Укомплектованная электрическая и автоматизированная система была испытана по схеме компании SMS Siemag «подключи и работай» во время строительных работ. Обучение операторов началось задолго до введения в эксплуатацию и способствовало быстрому пуску.

Комбинированная установка, включающая линию травления и стан тандем холодной прокатки, поставленная компанией SMS Siemag, считается самой мощной среди подобных установок и позволяет производить 2,5 млн. тонн в год. Холоднокатаный штрипс, к которому предъявляются

жесткие требования по качеству поверхности, можно пропускать через отдельностоящий дрессировочный стан.

Дополнительно к штрипсу, производимому на комбинированной установке, еще 1,1 млн. тонн горячего штрипса можно обрабатывать на непрерывной линии травления. Кислота в обеих секциях установки обрабатывается с помощью современной установки регенерации кислоты. Технология гидротермальной обработки, разработанная компанией SMS Siemag, отличается более низким количеством вредных выделений, экономией электроэнергии и низкими эксплуатационными затратами и затратами на текущее обслуживание.

Для последующей обработки компания SMS Siemag поставила четыре линии горячего цинкования. Линии спроектированы для гибкого производства с печами отжига, оборудованием для нанесения покрытия и дрессировочными станами. На этих линиях производится широкий ассортимент коррозионностойкого штрипса.

Компания SMS Siemag поставила для комплекса по производству нержавеющей стали производительную линию для отжига и травления для непрерывной обработки горячекатаного штрипса из нержавеющей стали. В этой линии, состоящей из печи отжига, механического окалиноломателя и секции травления, горячий штрипс из нержавеющих марок стали предварительно нагревается для дальнейшей обработки на стане холодной прокатки.

新的ThyssenKrupp Steel钢铁厂在阿拉巴马州正式启动

ThyssenKrupp Steel USA和ThyssenKrupp Stainless USA的新的一体化钢铁联合企业于2010年12月10日在阿拉巴马州的Calvert正式启动。ThyssenKrupp Steel USA装置和设备的主要供应商是德国的SMS Siemag。供应范围包括年产量为530万吨钢带的高性能热轧带材轧机，一条联合酸洗线和冷连轧机、一条连续酸洗线、一套创新的酸再生设备、四条两熔炉热浸镀锌线以及一台离线平整机。在不锈钢领域，SMS Siemag供货范围包括了热轧带材酸洗和退火生产线。

SMS Siemag安装的装置和设备将使ThyssenKrupp Steel USA能生产非常广泛的钢带。主要客户是家用电器、施工和管道制造业以及汽车行业，尤其是地理位置邻近美国南部的大型汽车制造商。
新联合工厂核心部分是生产能力为530万吨钢带的高性能热轧带材轧机。该轧机能生产优质钢种带钢，包括多相钢和高强度等级钢种以及每产近100万吨的不锈钢钢带。
在工厂施工阶段，全套电气和自动化系统在SMS Siemag 的Plug & Work方案下被测试和优化。 操作员培训课程能在安装调试前早早就开始，而且能加速预备阶段。
由SMS Siemag提供的酸洗线/冷连轧据说是此类中最强大的一种，年产量为250万吨。需特别严格的表面质量要求的冷轧带材能够通过离线平整机。

除了酸洗线/冷连轧机外，110万吨热轧带材也可以在连续酸洗线中处理。在设备两个部分内的酸是通过创新的酸再生设备制约的。由SMS Siemag开发的热液调节技术减少了排放量、节约了能源而且操作和维护成本低。

对于进一步的加工步骤，SMS Siemag提供了四条热浸镀锌生产线。该生产线高度灵活，带退火炉、涂装设备和平整机。很多定制功能的已防腐带材产品都是在这些生产线上制造的。
对于不锈钢联合企业，SMS Siemag提供高输出退火和酸洗线，用于连续热轧不锈钢钢带加工。在由一个退火炉、机械除磷机和酸洗部分组成的这条生产线上，不锈钢热带材被预处理，以便在冷轧机中进行进一步加工。

SMS Siemag AG – Germany
Fax: +49 211 881 4902
Website: www.sms-siemag.com

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Rise in product quality at Huaigang

Huaigang Special Steel Co Ltd, a company of the Chinese Jiangsu Shagang Group, has placed an order with the German company Freidrich Kocks GmbH & Co KG in Hilden for the modernisation of their existing rod and bar mill. The target of this modernisation, which will be reached to a high degree by implementing a

Kocks 3-roll Reducing & Sizing Block, is to raise the product quality in order to strengthen the market position.

The new reducing and sizing block is dimensioned to operate with four 3-roll stands and a nominal roll diameter of 215mm. It will be implemented as finishing block in the 600.000 t/a rolling mill behind an existing ten-year-old Danieli Morgårdshammar roughing and intermediate mill consisting of 18 2-high HV stands. The 3-roll block will roll straight bars from 13mm Ø to 22mm Ø onto the cooling bed.

The RSB allows rolling out of only one pass series from the roughing and intermediate mill and thus significantly reduces the number of required feeders. Any desired finished dimension of the complete dimensional range can be produced in any desired sequence with a minimum number of roll sets and just a few stand changes.

The Kocks scope of supply includes the 3-roll reducing and sizing block with automatic quick stand changing system, remotely controlled adjustment of passes and guides as well as the roll shop equipment with quick roll change and CAPAS – the computer aided system for accurate adjustment of rolls and roller guides of 3-roll stands.

Рост качества продукции в Хуайганге

Компания Huaigang Special Steel Co Ltd, входящая в группу компаний Chinese Jiangsu Shagang Group, разместила заказ у немецкой компании Freidrich Kocks GmbH & Co KG из г. Хильден на модернизацию существующего стана для производства проволоки и прутка. Целью этой модернизации, которая будет осуществлена путем установки трехвалкового редукционно-калибровочного блока компании Kocks, является повышение качества продукции для усиления позиции компании на рынке.

Новый редукционнно-калибровочный блок рассчитан для работы с четырьмя трехвалковыми клетями с номинальным диаметром валков 215 мм. Он будет установлен на 600 000 т прокатный стан за существующим черновым и промежуточным станом компании Danieli Morgårdshammar, состоящим из 18 2-валковых мощных клетей, и которому уже десять лет. Трехвалковый блок будет транспортировать прямые прутки диаметром от 13 до 22 мм на холодильник.

Редукционно-калибровочный блок позволяет прокатывать серию продукции только за один проход от чернового м промежуточного стана и, таким образом, значительно снижать количество необходимых подающих механизмов. Любой требуемый размер из полного размерного сортамента может быть произведен в любой последовательности с использованием минимального количества комплектов валков и при небольшой смене клетей.

Объем поставки компании Kocks включает 3-валковый редукционный и калибровочный блок с быстрой автоматизированной системой смены клетей, с дистанционно управляемой системой настройки калибров и направляющих, а также прокатное оборудование с быстрой сменой валков и компьютеризированной системой для точной регулировки валков и роликовой проводки 3-валковых клетей.

Huaigang产品质量上升

Huaigang Special Steel Co Ltd有限公司是江苏沙钢集团的一家公司，向德国Hilden的Freidrich Kocks GmbH & Co KG公司下了订单，将对其现有的棒材轧机进行现代化。这次现代化的目的是通过植入Kocks三辊减径和定径机组来提高产品质量，从而巩固公司的市场地位。

新的减径和定径机组能容纳四个三辊机架，公称轧辊直径为215毫米。它可在现有的由18个2高高压机架组成的十年Danieli Morgårdshammar初轧机和中轧机后面的600.000吨每年的辊轧机内作为精整机组来实现。这个三辊机组将在冷却床上轧制13毫米到22毫米Ø的直棒材。

RSB能从初轧机和中轧机的仅一个道次系列中轧制出来，从而大大减少所需的供料器数量。任何想要完成的整个空间范围，可以以任何想要的顺序以最少的轧辊组进行生产，而且仅需要很少的机架更换。
Kocks供应范围包括三辊减径和定径机组，带自动快速机架更换，道次和导辊远程控制调整以及快速轧辊更换轧辊车间设备和CAPAS——用于三辊机架轧辊和导辊装置精确调整的计算机辅助系统。

Friedrick Kocks GmbH & Co KG – Germany
Fax: +49 - 2103 - 54 028
Email: v.d.Heiden@kocks.de

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Larikka freshens its company

LEO Larikka has given the pipe pre-fabrication world many innovative solutions for manufacturing tubular parts such as Tees and manifolds since the 1970s.

Now Larikka's company image has undergone a major renovation. In renewing the company's brand identity careful consideration was given to the company name. The previous company name Lacol never gained the brand value and strong recognition within the market which Larikka name enjoys. Thus, it was decided that the company name is changed to Larikka. A new company name and renewed logo is to create a more modern look, reflective of the innovative Larikka technologies for collaring, cutting and welding tubular parts.

The updated logo displays the company's brand name in capital letters (LARIKKA), joined with the familiar blue letter L which has represented Larikka's visual brand image since the 1970's. Also, the previously square logo has rounded out into a circle, communicating the internal approach of LARIKKA technologies in processing tubular parts.

Реконструкция компании Larikka

Компания LEO Larikka с 1970 года предложила много новаторских решений для производства трубных деталей, таких как тройники и колена для монтажа трубопроводов.

В настоящее время компания Larikka претерпела значительные изменения. При обновлении бренда компании особое внимание было уделено названию компании. Предыдущее название компании – Lacol – никогда не отличалось той ценностью торговой марки и устойчивым признанием, которыми обладает название компании Larikka. Таким образом, было решено, что название компании будет изменено на Larikka. Новое название компании и обновленный логотип должны придать более современный имидж, отражающий содержание новых технологий для гибки, порезки и сварки деталей трубопроводов.

Новый логотип компании включает торговую марку, которая написана большими буквами (LARIKKA), и объединена с уже хорошо знакомой заказчикам буквой L синего цвета, которая представляла визуальный бренд компании Larikka с 1970 года. Предыдущий логотип, который имел квадратную форму, стал круглым и отображает связь технологий компании LARIKKA с обработкой трубных компонентов.

Larikka 整新了公司

LEO Larikka自二十世纪七十年代以来为管道预制世界带来了很多创新解决方案，用于管道组成部件如三通和多头管的制造。
目前，Larikka的公司形象已经历了重大革新。在更新公司的品牌标识时，仔细考虑了公司的名字。以前的公司名字Lacol从来未得到过品牌价值和市场内的强烈认可，而Larikka这个名字享受了这些。因此，决定将公司名称改为Larikka。新公司名称和更新标志是为了创造更现代的外观、反映Larikka在管状零件曲边、切割和焊接上的技术创新。
更新后的标志以大写字母显示公司的品牌名(LARIKKA)，其中熟悉的蓝色字母L，代表了Larikka自二十世纪七十年代以来的视觉品牌形象。先前的方形标志也已做成了一个圆，传递了LARIKKA技术在加工管形部件中的内部方法。

Laarikka – Finland
Website: www.larikka.com

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Elcometer acquires Dakota Ultrasonics

ELCOMETER Limited, a supplier of inspection equipment to the coatings, concrete and metal detection industries, has announced the acquisition of Dakota Ultrasonics Incorporated of Santa Cruz, California.

“Dakota’s commitment to high quality products and service to the non-destructive testing community is second to none,” stated Michael Sellars, managing director of Elcometer Limited. “The similar ideals and beliefs of our two organisations will allow us to work together to further enhance our commitment to the global inspection community. We look forward to going from strength to strength.”

Компания Elcometer приобретает компанию Dakota Ultrasonics

Компания ELCOMETER Limited, поставщик контрольно-измерительного оборудования для покрытий, бетона и обнаружения металлов, объявила о приобретении компании Dakota Ultrasonics Incorporated из Санта-Круз, штат Калифорния.
«Приверженность компании Dakota производству высококачественной продукции и предоставлению услуг в области неразрушающего контроля является непревзойденной», утверждает Михаэль Селарс, управляющий директор компании Elcometer Limited.-«Одинаковые идеалы и убеждения наших двух компаний позволят нам работать совместно и в дальнейшем усиливать нашу приверженность идеалам мирового сообщества экспертов».

Elcometer 收购Dakota Ultrasonics

涂料、混凝土和金属检测行业检测设备供应商ELCOMETER Limited公司宣布收购加利福尼亚圣克鲁斯的Dakota Ultrasonics Incorporated公司。
“Dakota对无损检测领域优质产品和服务的承诺是首屈一指的” Elcometer Limited公司总经理Michael Sellars表示。“我们两家公司相似的理想和信念使我们能一起合作，以进一步提高我们对全球检测领域的承诺。我们期待越来越强大。”

Elcometer Limited – UK
Fax: +44 161 371 6010
Email: sales@elcometer.com
Website: www.elcometer.com

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New diameter measuring systems for Korean rod mills

ZUMBACH Electronic has won a contract from POSCO Pohang works in Korea for ten Steelmaster diameter/profile measuring systems. The new systems will partially replace existing gauges or complete unequipped locations in the finishing sections of the company’s #1, #2 and #3 rod mills.

All gauges are equipped with six Odac high speed laser scanners (in six axes), delivering 6,000 calibrated measurements per second, as well as with the latest hardware and software concept. The systems will be fully networked over Ethernet with POSCO’s material flow and QC control system.

Delivery of the compact gauges, which require close-to zero maintenance, is scheduled for early 2011. POSCO has operated a number of similar Steelmaster gauges in the intermediate sections since 2008.

Новые системы измерения диаметра для корейских станов для производства проволоки

Компания ZUMBACH Electronic выиграла тендер на контракт с заводом POSCO Pohang в Корее на поставку десяти систем Steelmaster для измерения диаметра и профиля. Новые системы частично заменят существующие средства измерения или полностью укомплектуют участки отделки на станах № 1, 2 и 3.

Все средства измерения оснащены шестью высокоскоростными лазерными сканерами серии Odac (с шестью осями), которые осуществляют 6000 калиброванных измерений в секунду, а также оснащены самым современным программным управлением. Системы будут полностью подключены к сети Ethernet и связаны с заводской системой управления потоками материалов и контроля качества. Поставка компактных измерительных приборов, которые практически не требуют техобслуживания,

запланирована на начало 2011 года. На заводе в промежуточных секциях с 2008 года работают несколько подобных приборов Steelmaster.

用于韩国棒材轧机的新直径测量系统

ZUMBACH Electronic得到了韩国POSCO Pohang制造厂订购10套Steelmaster直径/轮廓测量系统的合同。这些新系统将更换部分现有测量仪或完成公司#1、 #2和#3号棒材轧机加工部分未装配的地方。
所有家测量仪配备了6个高速激光扫描仪（在六个轴内），每秒能进行6000个校准的测量，以及拥有最新的硬件和软件概念。这些系统将通过以太网全部网络化，以及拥有POSCO的物料流和质量控制系统。
这些零维护小型测量仪计划于2011年早期交付。自2008年以来，POSCO在中间部分已经运行了很多类似的Steelmaster测量仪。

Zumbach Electronic AG – Switzerland
Fax: +41 32 356 04 30
Email: sales@zumbach.ch
Website: www.zumbach.com

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Sikora plans for the future

THE supervisory board and management board of Sikora have decided upon the restructuring of the company. From 1 January Harald Sikora, chairman and head of the R&D department at Sikora, withdrew from the operational business in order to pave the way for the next generation.

Mr Sikora has moved to the newly founded Sikora Holding GmbH & Co KG. Mrs Bernadette Sikora is also appointed to the Holding and is responsible for the business areas finances and controlling.

Harald Sikora will support the company as consultant. His successor is Harry Prunk, present member of the board of Sikora AG. As chairman, Mr Prunk takes over the management of the company with the business areas production, service, purchasing, sales, marketing, and research and development.

Dr Siegmar Lampe, previously deputy director of development under Harald Sikora, is appointed director of the R&D department.

Компания Sikora планирует реструктуризацию

Наблюдательный совет и совет директоров компании Sikora приняли решение о проведении реструктуризации компании. С 1 января Гаральд Сикора, председатель и глава научно-исследовательского департамента компании Sikora, перестанет заниматься вопросами производства чтобы подготовить почву для следующей стадии развития.

Г-н Сикора переехал в новое здание компании Sikora Holding GmbH & Co KG. Г-жа Бернадетта Сикора назначена сотрудником холдинга и будет отвечать за финансы и контроль в области торгово-промышленной деятельности.

Гаральд Сикора будет работать в компании в качестве консультанта. Его преемником является Гарри Прунк, член совета директоров компании Sikora AG. Являясь председателем, г-н Прунк возглавит управление компанией в области производства, обслуживания, закупок, сбыта, маркетинга, научно-технического развития.

Д-р Зигмар Лампе, бывший заместитель директора по развитию при Гаральде Сикора, назначен директором научно-исследовательского департамента.

Sikora为未来计划

Sikora的监督委员会和管理委员会已决定重组公司。从1月1日起，Sikora董事长和研发部门负责人Harald Sikora为了下一代而退出了经营事业。
Sikora先生搬到了新成立的Sikora Holding GmbH & Co KG。Bernadette Sikora夫人被任命到控股公司负责

业务范围的财务和控制。
Harald Sikora将作为顾问来支持公司。他的继任者是Sikora AG董事会目前的成员Harry Prunk。。作为董事长，Prunk先生接管公司业务领域的生产、服务、采购、销售、营销、研究和开发的管理。
以前Harald Sikora 下面的开发部副主任Siegmar Lampe博士将被任命为研发部主任。

Sikora AG – Germany
Fax: +49 421 48900 90
Email: sales@sikora.net
Website: www.sikora.net

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Orders for cold rolling mills

NORTHEAST Light Alloy Co, Ltd (NELA), China, has ordered a new CVC® plus aluminium cold rolling mill in six-high design from SMS Siemag. With the new aluminium cold rolling mill, NELA is entering modern production of high-quality aluminium strip products. In addition to various finished products, input stock for foil manufacture will be rolled on the CVC plus six-high stand.

The new SMS Siemag cold rolling mill, which will constitute the central production unit of the works in Harbin, is designed for a capacity of 85,000tpy and processes incoming strips with entry gauges of maximum 8mm and widths of up to 1,900mm. The minimum final gauge is 100µm, and the maximum coil weight 21t.

The six-high stand is equipped with CVC plus intermediate-roll shifting and with multizone roll cooling for influencing strip flatness. A Hot Edge Spray system (HES) is provided to influence strip flatness in the strip edge area. The Dry Strip system (DS) installed in the exit section of the mill ensures that the residual oil on the surface of the rolled strips is kept to a minimum. A coil preparation station, a coil conveyor system and the full range of utility systems complete the mill stand.

SMS Siemag has also received an order from Novelis do Brasil Ltda, Brazil, to supply a new two-stand cold rolling mill for aluminium alloys. The two-stand tandem mill is said to be the first of its type in South America.

The new tandem cold mill will be used for manufacturing can stock for the beverage industry. The products will comprise strip in widths of up to 2,000mm and with a minimum final gauge of 0.15mm. The mill will be designed for an annual capacity of 330,000t.

The key components of this high-capacity mill are highly efficient roll bending systems, multizone roll cooling and a hydraulic roll adjustment system. A coil preparation station, an off-line strip inspection facility and a pallet transport system from SMS Siemag complete the rolling mill.

Заказы на поставку станов холодной прокатки

Компания NORTHEAST Light Alloy Co, Ltd (NELA), Китай, заказала у компании SMS Siemag новый шестивалковый стан холодной прокатки алюминиевого штрипса серии CVC® plus. Компания NELA начнет производство высококачественного алюминиевого проката на новом современном стане холодной прокатки. Кроме различной готовой продукции, в шестивалковой клети CVC plus будут кататься заготовки для производства фольги.

Новый стан холодной прокатки компании SMS Siemag, который дополнит производственное оборудование на заводе в Харбине, спроектирован для производства 85000 тонн в год и способен обрабатывать полосу, имеющую входную толщину максимум 8 мм и ширину до 1900 мм. Минимальная готовая толщина равна 100 мкм, а максимальный вес рулона 21 т.

Шестивалковая клеть оборудована системой смены промежуточных валков CVC plus и имеет систему многозонного охлаждения валков для обеспечения прямизны полосы. Система охлаждения горячих кромок обеспечивает прямизну полосы в области кромок. Система сушки полосы, установленная в выходной секции стана, обеспечивает минимальное количество остатков масла на поверхности полосы. Клеть стана укомплектована станцией подготовки рулона, системой транспортировки рулона и полным набором вспомогательных систем.

Компания SMS Siemag также получила заказ от компании Novelis do Brasil Ltda, Бразилия, на поставку нового двухклетевого стана для прокатки алюминиевых сплавов. Двухклетевой стан тандем станет первым станом такого типа в Южной Америке.

Новый стан тандем холодной прокатки будет использоваться для производства жести для банок для напитков. Продукция, производимая на стане, - полоса шириной до 2000 мм с максимальной готовой толщиной 0,15 мм. Стан будет спроектирован для производства 330 000 тонн в год.

Основными агрегатами этого мощного стана являются высокоэффективные системы регулировки зазора между валками, многозонного охлаждения валков и гидравлическая система настройки валков. Прокатный стан укомплектован станцией подготовки полосы, отдельностоящим оборудованием для контроля полосы и системой транспортировки паллет компании SMS Siemag.

冷轧机订单

中国NORTHEAST Light Alloy Co, Ltd (NELA)公司从SMS Siemag订购了六高设计的新型CVC®加铝冷轧机。有了这个新型铝冷轧机，NELA正进入优质铝带材产品现代化生产。除了各种成品外，铝箔生产输入库存还将在CVC加六高机架上进行轧制。
新的SMS Siemag冷轧机，将构成哈尔滨工厂的中心生产装置，用于实现85,000吨每年的年产量，能加工最大8毫米来料厚度和1900毫米宽度的来料钢带。最小的最终厚度为100µm，最大的钢卷重量为21吨。
六高机架配有CVC加中间轧辊移动以及影响钢带平整度用的多区轧辊冷却。一套热边缘喷淋系统(HES)用来影响钢带边缘区的钢带平整度。干燥钢带系统(DS)安装在轧机出口区用来确保已轧制钢带表面上的渣油保持最少。一个钢卷准备站、一套钢卷传送系统和全套应用系统组成了完整的轧机机架。
SMS Siemag也收到了来自巴西Novelis do Brasil Ltda的订单，为其铝合金生产提供新型两机架冷轧机。这个两机架串列式轧机据说将是南美洲第一台此类轧机。
这台新型串列式冷轧机将用于饮料工业罐身料制造。这些产品将包括宽度在2000毫米内、最小最终厚度为0.15毫米的钢带。该轧机年产量将达到330,000吨。
这个高容量轧机的主要部分是高效轧辊弯曲系统、多区轧辊冷却和液压轧辊调整系统。来自SMS Siemag的钢卷准备站、离线钢卷检测设备和一个托盘运输系统组成了完整的滚轧机。

SMS Siemag AG – Germany
Fax: +49 211 881 4902
Website: www.sms-siemag.com

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AddisonMckee completes financial restructuring

ADDISONMCKEE Inc, a manufacturer of CNC tube benders, tube end formers, muffler manufacturing equipment, automated solutions and precision tooling, completed a financial restructuring in September, and is now well capitalised with ample working capital to support its business lines. The transaction reduced the company's debt by 75%, secured a new bank facility and provided additional equity capital.

The company's board issued the following statement: "Like many of our customers and suppliers, AddisonMckee executed an extensive cost cutting program during the painful economic downturn of 2008/2009. Since the change of control in March [2010] the company has implemented management changes and initiated operational improvements that were designed to drive improved performance throughout the organization.

"These improvements, together with improved business activity, increased product demand – and now the completion of our financial restructuring – will allow us to support new product launches and services and implement geographic expansion plans delayed by the 2008/2009 downturn.

"With respect to new products, we are now taking orders for new models of tube bending, end-forming and muffler products and will offer additional new products in 2011. These products are being designed to address our customers' need for innovative and affordable tube-forming solutions.

"With respect to geographic expansion, we have recently established AddisonMckee Europe (AME) and next month we will re-open our manufacturing facility in Preston, UK to manufacture products for the Euro-

pean market. Our Asian operations will be expanded in 2011 and we are currently reviewing plans to establish operations in Latin America."

AddisonMckee provides tube manipulation equipment, tooling, and integrated process solutions to the aerospace, automotive, furniture, military, plumbing, power generation, power sports vehicle and ship building sectors. The company is privately held, and since March 2010 has been majority-owned by Albion Investors LLC, a New York-based private equity firm.

Компания AddisonMckee завершает финансовую реструктуризацию

В сентябре компания ADDISONMCKEE Inc, производитель трубогибов с программным управлением, устройств для обработки концов труб, оборудования для производства глушителей, разработчик средств автоматизации и точного инструмента, завершила финансовую реструктуризацию.
В настоящее время компания прошла капитализацию и обладает достаточными оборотными средствами для ведения бизнеса. В результате соглашения удалось сократить на 75% задолженность компании и обеспечить дополнительный собственный капитал.

Правление компании сделало следующее заявление: «Подобно многим своим заказчикам и поставщикам, компания AddisonMckee реализовала большую программу снижения затрат в период экономического спада 2008/2009 годов. После смены руководства в марте 2010 года компания осуществила изменения в администрации и инициировала модернизацию производства, которая должна была стимулировать рост производительности».

«Эти изменения, наряду с увеличением торгово-промышленной деятельности, увеличили спрос на продукцию, и сейчас завершение нашей финансовой реструктуризации позволит нам поддержать выпуск новых видов продукции и услуг, а также реализовать планы по расширению географии поставок, которые были отложены из-за спада 2008/2009 годов.

«Что касается новой продукции, сейчас мы принимаем заказы на новые модели трубогибочных станков, станков для формовки концов труб и выпуска глушителей, а также предложим в 2011 году новые виды продукции. Эта продукция разработана для удовлетворения спроса наших заказчиков в инновационных разработках по формовке труб».

«Относительно расширения географии поставок, мы недавно создали компанию AddisonMckee Europe (AME), а в следующем месяце возобновим работу наших производственных мощностей в Престоне, Великобритания, по производству продукции для европейского рынка. Наша деятельность в странах Азии в 2011 году будет расширяться, В настоящее время мы рассматриваем планы своей деятельности в Латинской Америке».

Компания AddisonMckee поставляет оборудование для обработки труб, инструмент и разработки в области комплексной обработки для аэрокосмической, автомобильной, мебельной, оборонной промышленности, строительства систем водоснабжения, производства электроэнергии, спортивных автомобилей и кораблестроения. Компания является компанией закрытого типа, и с марта 2010 года контрольный пакет акций принадлежит компании Albion Investors LLC, которая находится в Нью-Йорке.

AddisonMckee完成财务重组

ADDISONMCKEEInc公司是一家数控弯管机、管端成型机、消声器制造设备、自动化解决方案和精密模具制造厂，公司宣布9月完成了财务重组，现在有充足的营运资本来支持其经营范围。该次事务处理使公司的债务减少了75%，获得新的银行计划以及提供了额外的权益资本。
公司董事会发表了以下声明："像我们许多客户和供应商一样，AddisonMckee 在经济低迷 的2008/2009执行了很多成本消减计划。自今年[2010]三月份的控制变革以来，公司已实施了管理变革，启动了运作改进，用来推动整个企业业绩的提高。"
"这些改进连同改善的经营活动，增加的产品需求——以及目前我们财务重组的完成——将使我们能够支持新产品投放市场及服务以及实施因2008 / 2009经济衰退延迟的区域扩张计划。"
对于新产品，我们正在接受一些订购新型弯管机、管端成型和消声器产品的订单，并将在2011年提供其他新产品。这些产品正用来解决客户对创新、实惠型管道成型解决方案的需要。

“关于地域扩张，我们最近成立了AddisonMckee Europe (AME)，并且下个月我们将重新启动我们在英国普雷斯顿的制造设施为欧洲市场制造产品。我们的亚洲业务营运将于2011年扩大，而且目前我们正在审核将在拉丁美洲经营的计划。”
AddisonMckee公司为航空航天、汽车、家具、军事、水暖、发电、电力运动车辆和船舶制造行业提供管道处理设备、工具和一体化加工解决方案。公司是私营的，自2010年3月主要由总部在纽约的私人股本公司Albion Investors LLC控股。

AddisonMckee Inc – USA
Email: jrankin@addisonmckee.com
Website: www.addisonmckee.com

AUTOMOTIVE

Semi-automatic mandrel bender for prototype or daily production

CML USA has launched the Ercolina TM76 mandrel bender with a bending capacity to 3” round tube and multiple profiles, capable of bends to CLR as small as 1.5D. USB capability offers unlimited storage of bend programs, material library and job information.

Model TM76 is suitable for prototype or daily production. Its control is designed for easy access to manual and auto operating modes, system diagnostics and multiple languages, with an interactive touch screen displaying absolute (ABS) or incremental (INC) positioning with inch or metric readout.

TM76 incorporates programmable mandrel positioning with anticipated mandrel retraction, clamping, pressure die and boost die movements. Tailstock Y and B position display resets to zero after each bend for easy setup while maintaining absolute position. Its heavy, one-piece steel structure improves rigidity and minimises vibration.

Полуавтоматический дорновый гибочный станок для опытного и серийного производства

Компания CML USA Inc – Ercolina выпустила дорновый гибочный станок Ercolina TM76, которым можно выполнять гибку круглых труб диаметром до 3” и различных профилей при таком малом радиусе, как 1,5 D. Порт USB позволяет хранить программы гибки, библиотеку материалов и информацию об изделиях.

Модель TM76 подходит как для опытного, так и для серийного производства. Система управления разработана для возможности выбора ручного или автоматического режима, диагностики системы и работы с несколькими языками, а на интерактивный сенсорный дисплей выводятся показатели абсолютного или инкрементного позиционирования в дюймах или миллиметрах.

Станок TM76 снабжен функцией программного позиционирования дорна и его извлечения, зажатия, а также движения прижимной и гибочной матриц. Дисплей положения задней бабки Y и B переустанавливается на нуль после каждого гиба, что облегчает операцию установки и сохранения абсолютного положения. Массивная монолитная стальная конструкция станины обеспечивает жесткость и минимальную вибрацию станка.

半自动芯轴弯管机，用于标准或日常生产

CML USA公司推出了Ercolina TM76芯轴弯管机，弯曲能力可达3”的圆管和多种外型，能处理小到1.5倍直径的CLR弯制。带USB，可为弯曲程序、材料库和工作信息提供无限的储存。
TM76型适用于标准或每日的生产。其控制设计用来便于进入手动和自动操作模式，系统诊断以及多语言功能，一个互动式触摸屏显示绝对的(ABS)或增值 (INC) 的定位，以英寸或米制读数。
TM76型并入可编程芯轴定位，带预期的芯轴收回、夹紧、压力模具和推进模具运动。在每次弯制后，尾架Y和B位置显示重新归零， 便于设置，同时保持绝对的定位。其重型一体式钢结构提高了稳健性，把振动降到最小。

CML USA Inc – Ercolina – USA
Fax: +1 563 391 771
Email: info@ercolina-usa.com
Website: www.ercolina-usa.com

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Duratrim scarfing system improves strip edge presentation

COMMERCIALLY slit coils can have often have as much as 35% of their edges that are not cut cleanly, this can be due to many factors such as bad practices, poor quality material and badly worn tooling. The result of this is that edge presentation at the welding point will be poor and welding heat has to be increased to 'melt' more material, excessive 'squeeze pressure also has to be applied to avoid defects. These issues will increase material and energy costs as well as creating an excessively large inside/outside welding flash that then has to be removed. In summary a very bad situation! STE's Duratrim is a unique edge scarfing system for welded tube mills, it enables the manufacturer to trim and clean the steel coil edges as it enters the tube mill prior to the forming station. It is particularly effective for aluminized material for automotive exhaust systems.

This process helps you realise significant benefits: reduced welding energy; consistent homogenous weld integrity; reduced strip width/costs; ability to weld more challenging materials; reduced rejects; less OD/ID welding flash (bead); less 'splatter' from weld zone; consistent strip width leading to fewer rejects; unit runs 'dry' without emulsion; increase life of Impedors and OD/ID scarfing tools; increase yield and correct all slitting problems.

It is a simple but effective design with one of the most unique methods of shaving the strip edges. This is due to the 'floating' design of the scarfing assemblies which allow the unit to follow the path of the steel strip whilst maintain positive contact pressure on the scarfing inserts. The system utilises 4 x sets of special scarfing inserts which remove material from the strip edges, top and bottom. The inserts are supported and kept in position by pneumatic cylinders (8 in total), the pressure of which is adjustable enabling different amounts of material to be removed. All sets of inserts are mounted on a floating mechanism ensuring constant material removal even with movements in the strip. The Duratrim is capable of running up to 100 M/min without cooling of the cutting tools, speeds above this may require emulsion cooling. Duratrim is simple to install and set, requires only compressed air to operate and is a low cost investment. It offers considerable benefits over other more expensive edge preparation systems and will ensure that you get a rapid payback on your investment. It can be mounted onto the mill forming bed or 'freestanding' between accumulator and forming station. It is easily able to withstand cross welds (coil join sections) and will even cope with damaged strip at the beginning or end of a coil.

Система зачистки кромок полосы Duratrim

До 35% кромки полосы после её продольной резки в промышленных условиях может иметь неудовлетворительную чистоту реза ввиду влияния многих факторов, таких, как несоблюдение правил эксплуатации оборудования, плохое качество материала или сильный износ инструмента. Вследствие этого кромка в местах сварки имеет плохой профиль, теплопотери при сварке увеличиваются из-за необходимости оплавления большего объема материала, а для предотвращения дефектов требуется приложение повышенных усилий сжатия кромок. Все это увеличивает расходы на материал и энергию и приводит к образованию чрезмерного объема внутреннего и наружного грата, который нужно снимать. Возникает плачевная ситуация. Система Duratrim компании Superior Technologies Europe – это уникальная система зачистки кромок для трубосварочных станов. Она позволяет обрезать и зачищать кромку стальной полосы перед формовочным участком трубного стана. Её применение особенно эффективно для алитированного материала при производстве автомобильных выхлопных систем.

Этот процесс способствует снижению мощности сварки, повышению целостности сварного шва на всем его протяжении, снижению расходов на полосовой материал, возможности сваривать материалы, плохо поддающиеся сварке, сокращению брака, уменьшению внутреннего и наружного грата, снижению образования брызг при сварке, получению постоянной ширины полосы, что сокращает количество брака. Система работает «всухую», без применения эмульсии, продлевается

срок службы гратоснимателей и импидоров, увеличивается выход годного и устраняются все проблемы продольной резки.

Конструкция системы простая, но эффективная. В ней используется один из самых уникальных методов зачистки кромок полосы. Все это – благодаря «плавающим» зачистным узлам, позволяющим системе следовать траектории движения полосы, сохраняя положительное контактное давление на вставные резцы гратоснимателей. В системе используется 4 комплекта вставных резцов, которые снимают материал с кромки полосы, сверху и снизу. Резцы удерживаются в рабочем положении пневмоцилиндрами (всего 8 единиц), давление которых может устанавливаться на различный объем снятия материала. Все комплекты резцов крепятся на плавающем механизме, обеспечивающем постоянную величину снятия материала, даже при поперечном перемещении полосы.

Система Duratrim может работать со скоростью до 100 м/мин без охлаждения режущего инструмента, а при более высоких скоростях может требоваться эмульсионное охлаждение. Систему Duratrim легко устанавливать и настраивать, и для её работы требуется только сжатый воздух, а затраты на её установку невысокие. Она имеет значительные преимущества по сравнению с более дорогостоящими системами подготовки кромок и обеспечивает более быструю окупаемость затрат. Её можно монтировать на станине формовочного стана или как отдельностоящую систему между на накопителем полосы и формовочным участком. Она легко справляется с поперечными швами (швами стыковки полосы) и даже с повреждениями переднего и заднего концов рулона.

Duartrim嵌接系统提高了带钢边缘性能

商业上，窄带卷通常有高达 35%的边缘未切干净，原因可能有很多，如不当的操作、劣质的材料和工具磨损厉害等。结果是焊接点的边缘情况很差，焊接温度也必需增加来“熔掉”更多的材料，而且还要施加极大的挤注压力来避免出现缺陷。这些问题将增加材料和能源成本，以及创造极大的内/外弧光灼伤，这些灼伤随后还得清除。总的来说情况很糟糕！STE的Duratrim是一个独特的边缘嵌接系统，用于焊接轧管机，它使制造厂在钢卷进入管轧机，在成形工作站前，能切割和清理钢卷边缘。这对于汽车排气系统镀铝材料尤其有效。该工艺可帮助你实现很多显著的好处：减少焊接线能量；一致均匀的焊缝完整性；降低带钢宽度/成本；能焊接更具挑战性的材料；减少不合格品；更少的内径/外径弧光灼伤（焊珠）；来自焊接区的飞溅少；一致的钢带宽度使不合格品较少；装置干式运转无需乳剂；增加阻抗器和外径/内径嵌接工具使用寿命；提高产量且能纠正所有切割问题。

它是简单且有效的设计，是修正钢带边缘最独特的方法之一。这是因为嵌接组件的“浮动”设计将使这个装置跟随钢带路径同时能在嵌接插入件上保持正接触压力。该系统利用4套专门的嵌接插入件将材料从钢带边缘、顶部和底部移除。这些插入件由气压缸（共8个）支撑和保持在位置上，压力可以根据将被移除的不同的材料量来调整。每组插入件是安装在浮动机械装置上的，确保即使是在钢带移动的情况下材料移除一致。Duratrim能够以100米/分的速度运行，无需冷却切割工具，如果超过这个速度，可能需要乳剂冷却。Duratrim安装和设置简单，只需要压缩空气来操作，而且投资成本低。它提供的好处比其他更贵的边缘准备系统还要可观，并将确保你快速得到投资回报。它可以安装到轧机机床上或是储存器和成形站之间的“自由站”。它很容易承受交叉焊缝（钢卷接缝区）而且可以在钢卷开始和结束处处理损坏的钢带。

Superior Technologies Europe – UK
Email: sales@st-europe.co.uk
Website: www.st-europe.co.uk

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Plants for high precision automotive products

SMS Meer GmbH, a company of the SMS Group, Germany, is installing a sixth ERW line for high precision automotive products.

The new plant, scheduled to go into operation in 2011 with an annual production capacity of up to 20,000 tons, will provide roundness and ovality tolerances similar to drawn products. This is made possible by the rigid and sturdy machine design with high precision backlash-free roll adjustments. The high rotation accuracy will be achieved by patented roller bearings, with proven clamping collar connection of shaft and roll. The line uses special solutions by use of patented side stands and precision taper roller bearings associat-

ed with very high manufacturing/fitting tolerances of the individual parts and assemblies. The concept of the line is completed by the reliable and fast roll change in collaboration with the SMS Meer CSS-Quicksetting system.

The production range consists of pipes from a diameter of 10 to 40mm, with a wall thickness up to 4mm and maximum yield strength of 800N/mm². The pipes to be produced will be used for technologically demanding products for the automotive industry, with round tube tolerance including ovality of ±0.03mm.

Оборудование для высокоточных изделий для автомобилей

Компания SMS Meer GmbH, входящая в группу SMS Group, Германия, устанавливает шестую линию электросварки сопротивлением для выпуска высокоточных автомобильных деталей.

Новая установка, пуск которой намечен на 2011 г., рассчитана на выпуск 20 000 т/год изделий с допусками на правильность круглой формы и овальность, сравнимыми с волоченой продукцией. Это обеспечивается благодаря жесткой и прочной конструкции её оборудования с высокоточной настройкой роликов без люфта. Высокая точность скорости вращения достигается путем применения запатентованных роликоподшипников и соединения оси и ролика зажимным кольцом. Использованы специальные разработки с применением запатентованных боковых стоек и прецизионных роликоподшипников с очень жесткими допусками изготовления и посадки отдельных деталей и узлов. В установке предусмотрена надежная и быстрая смена роликов с применением системы CSS-Quicksetting компании SMS Meer.

Сортамент продукции включает трубы диаметром от 10 до 40 мм с толщиной стенки до 4 мм. Максимальный предел текучести материала 800 Н/мм2. Эти трубы будут использоваться в производстве высокотехнологичных изделий для автомобильной промышленности с допуском на овальность ±0.03mm.

高精密汽车产品设备

SMS Meer GmbH是德国SMS Group的一家公司，正在安装高精密汽车产品第六套ERW线。新设备预定在2011年投入运行，年生产能力达20000吨，将达到与拉拔产品相似的圆度和椭圆度公差。这通过钢性且坚实的机械设计以及高精度无间隙轧辊调整使其成为可能。高旋转精度将通过专利的轧辊轴承以及被验证的轴和轧辊的夹圈连接来实现。该生产线通过使用对单个部件或组件很高的制造/装配公差要求相关的专利的侧支架和精密的圆锥滚柱轴承来使用特殊的解决方案。该生产线的理念通过可靠快速的轧辊更换连同SMS Meer CSS-Quicksetting系统合作完成的。

生产范围包括直径10到40毫米、壁厚4毫米以及最大屈服强度为800N/mm²的管道。生产的管道将用于汽车行业技术要求高的产品，圆管的公差包括±0.03mm椭圆度。

SMS Meer GmbH – Germany
Fax: +49 2161 350 1667
Email: info@sms-meer.com
Website: www.sms-meer.com

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High volume component cutting for automotives

FOR some applications, cutting to length is not enough – cutting to the precise dimension is required. Plantool's state-of-the-art cold circular saws are designed for precise mass production.

The cutting process is optimised by using intelligent, rigid machines, effective chip removal and the right lubrication of tungsten carbide tipped (TA) blades.

For tube and pipe cutting Plantool provides its patented multifunction technology. The principal idea of the company's patent is to combine turning of the pipe with two or more simultaneously cutting blades. As a result of this innovation the cut off process is faster, produces less chips, consumes less energy and extends

the life of the saw blades.
Plantool's saw type 2/15 HF uses the patented multifunction cutting technology. The machine has been designed for tube cutting up to 140mm diameter, and is equipped with two blades attached to spindles with one 15kW motor each. Semi-automatic and fully automatic feeding systems are available.

As an example, the capacity for tubes of 100mm OD, wall thickness 8mm and cut length 20mm is 4,000 cuts per 8-hour shift, equalling 2.5 million cuts per year.

Plantool has served customers in the metal industry since 1976, and since the 1990s has delivered over 80 circular saw units. The company offers four different scopes of delivery: stand alone saws; saws included in an integrated production line; saws dovetailed with the customer's existing production system; or saws as integrated parts of special purpose machines.

Высокопроизводительная резка изделий для автомобильной промышленности

Для некоторых областей простой резки на мерные длины недостаточно, требуется резка на точные размеры. Современные дисковые пилы компании Plantool Oy разработаны для массового и точного производства.

Процесс резки оптимизируется путем применения интеллектуальных станков жесткой конструкции с эффективным удалением опилок и правильной смазки режущих дисков с режущей кромкой из карбида вольфрама.

Для резки труб компания Plantool Oy применяет свою многофункциональную технологию. Принципиальная идея её патента состоит в комбинации вращения трубы с действием двух или более одновременно режущих дисков. В результате такой инновации процесс резки ускоряется при меньшем образовании опилок и потреблении энергии, а срок службы режущего инструмента увеличивается.

Пила типа 2/15 HF компании Plantool изготавливается с применением запатентованной многофункциональной технологии резки. Станок разработан для резки труб диаметром до 140 мм двумя дисками, установленными на шпинделях, каждый с одним двигателем мощностью 15 кВт. Может также поставляться полуавтоматическая или автоматическая система подачи. Например, производительность станка при резке труб с наружным диаметром 100 мм и толщиной стенки 20 мм составляет 4000 резов за 8-часовую смену, что равно 2,5 млн. резов в год. Компания Plantool поставляет свою продукцию для металлообрабатывающей промышленности с 1976 г., а с 1990-х гг. она поставила свыше 80 дисковых пил. Она предлагает четыре варианта поставок: отдельностоящие пилы, пилы, встраиваемые в технологическую линию заказчика, пилы, связываемые с существующими производственными системами или пилы, входящие в состав оборудования специального назначения.

汽车大量组件切割

对于某些应用，定长切割是不够的——需要切割到精确的尺寸。Plantool公司一流的冷圆锯是专门设计用来进行精确的大批量生产的。

该机器通过利用智能型钢性机器、有效的切屑清除以及硬质合金锯片(TA)正确的润滑来得以优化。Plantool为管道切割提供其专利多功能技术。公司专利的主要思想是将管道车削与两个或多个同时切削的锯片相结合。这一创新使切断速度更快，产生的切屑更少，消耗的能量也较少，而且延长了锯片的使用寿命。Plantool的2/15 HF型锯机使用的是专利多功能切割技术。该机器设计用来切割直径达140毫米的管道，配有两个锯片安装在主轴上，每个带一个15kW的电机。半自动和全自动给料系统都可用。
比如，外径100毫米、壁厚8毫米、切割长度为200毫米的管道切割能力是每8小时轮班完成4000次切割，相当于一年完成250万的切割。

Plantool自1976年以来一直为金属行业的客户服务，自20世纪90年代以来，已经交付了80个圆锯装置。公司提供4种不同的交货范围：单独的锯机；包括在一体化生产线内的锯机；与客户已有生产系统密切配合的锯机；或者集成在特殊用途机器内的锯机。

Plantool Oy – Finland
Fax: +358 207 288 210
Email: plantool@plantool.fi
Website: www.plantool.fi

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Tube mills for automotive heavy wall products

KUSAKABE Electric & Machinery Co, Ltd of Japan develops and improves the design and manufacture of tube mills for the international automotive industry, for the production of heavy wall products. These tubes are used mainly in the suspension and drive train of motor vehicles, and a range of products are required to meet the full range for motorcycles, cars, trucks and industrial engines and machines.

The Kusakabe heavy wall automotive tube mills are designed to meet the needs of the automotive sector where drawn tubes or products made from solid bar can be replaced with heavy wall ERW welded tubes at a lower cost.

Over a number of years Kusakabe have developed the technology and machinery to produce small diameter, heavy wall tubes for the automotive industry, and has supplied a range of these machines to Japan, Germany, Taiwan, USA and Turkey.

To be able to manufacture such tubes, all the component parts of the tube mill need to be designed to cater for the extra loadings caused by these products. This includes the uncoiler, strip accumulator, forming and welding, tooling, internal fin cutting, sizing and cutting to length.

Kusakabe provides a comprehensive range of tube and pipe mills and associated equipment to meet the industry's needs, from the manufacture of aluminium radiator tube to large pipe mills for the oil, gas and structural market sectors.

Трубные станы для автомобильных деталей из толстостенных труб

Компания Kusakabe Electric & Machinery Co, Ltd, Япония, разрабатывает и совершенствует конструкцию трубных станов для производства толстостенных труб, используемых в автомобильной промышленности многих стран. Такие трубы в основном применяются в подвесках и трансмиссии грузовых автомобилей, а также в мотоциклах, легковых автомобилях, производственном оборудовании.

Трубные станы компании Kusakabe для производства толстостенных труб разрабатываются с учетом требований автомобильной промышленности, где волоченные трубы, изготовленные из сплошной заготовки, можно заменить более дешевыми толстостенными трубами, полученными электросваркой сопротивлением.

В течение нескольких лет компания разрабатывает технологии и оборудование для производства толстостенных труб малого диаметра для автомобильной промышленности. Она поставила целый ряд таких машин для Японии, Германии, Тайваня, США и Турции.
Чтобы можно было изготавливать такие трубы, все элементы трубного стана должны рассчитываться на сверхвысокие рабочие нагрузки. Это касается такого оборудования, как разматыватели, накопители полосы, формовочный и сварочный станы, технологического инструмента, гратоснимателей внутреннего грата, оборудования для калибровки и резки на мерные длины.

Компания поставляет обширную номенклатуру трубных станов и вспомогательного оборудования как для производства алюминиевых радиаторных труб, так и для производства труб для нефтегазовой и строительной отраслей промышленности.

汽车厚壁管轧管机

日本KUSAKABE Electric & Machinery Co, Ltd公司开发和改进了国际汽车工业轧管机设计和制造，用于生产厚壁产品。这些钢管主要用于机动车辆悬置机构和驱动机构，一些产品要求满足摩托车、汽车、卡车和工业

发动机和机器的一整套需要。
Kusakabe厚壁汽车管道轧管机用来满足用低成本厚壁电阻焊焊管代替实心棒材拉制的管道或产品的汽车行业的需要。
经过多年，Kusakabe开发了生产汽车行业用小直径、厚壁管道的技术和机械，并且向日本、德国、台湾、美国和土耳其提供了一系列这些机器。
为了能制造这种管子，轧管机的所有零部件需要设计用来满足由这些产品引起的额外的载荷。这包括开卷机、带材储存机、成型及焊接、加工、内部去毛刺、定径和定长切割。
Kusakabe提供全面的轧管机和相关设备来满足工业需要，从铝散热器管制造到石油、天然气和结构市场部门的大管道轧管机。

Kusakabe Electric & Machinery Co, Ltd – Japan
Fax: +81 78 992 9139
Email: sales@kusakabe.com
Website: www.kusakabe.com

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Precision tubes from Italy

TECNOFAR SpA specialises in manufacturing stainless and nickel alloy tubes. It is a rapidly expanding company, and since 2005 has had two production units, located in Delebio and Gordona, covering a total surface area of 7,000m2.
The company produces redrawn precision tubes, both in bar and coil form, by using the TIG welding process. The company offers a modern, well-equipped department for tube cutting and is able to produce cut pieces measuring just a few millimetres in length, completely burr-free.

Tubes are produced using stainless steels provided and guaranteed by leading steel mills. ISO ***9001:2000*** accredited (by Italcert), the company has been certified by RINA for its welding system and heat treatment for the production range of OD 6-19mm and wall thickness of 0.4 to 1.1mm.

Прецизионные трубы из Италии

Компания Tecnofar SpA специализируется в производстве труб из нержавеющих сталей и никелевых сплавов. Это быстро развивающаяся компания: начиная с 2005 г., она ввела ***в строй две*** промышленные установки в Делебио и Гордоне с общей производственной площадью 7000 м2.
Компания производит повторно волоченные прецизионные трубы, как прямые, так и в бухтах, с применением процесса сварки вольфрамовым электродом в инертной газовой среде. В её распоряжении современный хорошо оборудованный цех для резки труб, где можно получать трубы длиной всего несколько миллиметров без заусенцев.

Трубы изготавливаются из нержавеющих сталей, поставляемые ведущими производителями стали. Компания была аккредитована по стандарту ISO 9001:2000 (организацией Italcert). Она также была сертифицирована компанией RINA на сварочную систему и термообработку продукции в сортаменте наружных диаметров от 6 до 19 мм и толщин стенки от 0,4 до 1,1 мм.

来自意大利的精密管材

TECNOFAR SpA公司专门从事不锈钢和镍合金管道生产。它是一家迅速扩展的公司，自2005年以来，已经有了两套生产装置，分别位于Delebio和Gordona，总占地面积为7,000m2。
公司用氩弧焊焊接工艺以棒材或卷材生产重拉精密管。公司提供现代装备精良的管道切割部门并且能生产长度为几毫米的完全无毛刺切割件。

管道都是用领先的钢厂提供和保证的不锈钢材生产的。通过了ISO 9001:2000认证（由Italcert颁发的）的该公司得到了RINA对其生产范围为外径6到19毫米，壁厚0.4到1.1毫米的焊接系统和热处理方面的认证。

Tecnofar SpA – Italy
Fax: +39 0342 684500
Email: info@tecnofar.it
Website: www.tecnofar.it

TUBE RUSSIA 2011

Austria Stand TBC

Maschinenfabrik Liezen und Gießerei GmbH

Maschinenfabrik Liezen und Gießerei GmbH (MFL), Austria provides customised sawing and milling equipment for tube manufacturers all over the world.
The product range includes: Plate edge milling machines for ERW pipes; stripe edge milling machines for longitudinal welded pipes; Circular layer sawing machines for seamless pipes and profiles; circular single cut sawing machines for tubes, billets, ingots and profiles; welding seam processing machines and pipe bevelling machines.

The unique welding seam processing machine removes the overlaying inner and outer welding seam of large-diameter pipes over a length of 400mm. This process offers a number of advantages compared to the common, manual grinding process.
The company's cold circular sawing machines are used for cutting stainless steel, high and low alloyed steel, structural steel and non-ferrous metals in the form of billets, tubes, profiles and plates. The machines are equipped with carbide tipped saw blades that ensure high performance and a long service life by less costs.

The cutting machines are classified into single cut sawing machines and layer sawing machines. The single cut sawing machines are able to cut billets and single tubes with a diameter from 30 to 800 mm. The layer sawing machines are used for cutting of tubes, I- and U-beams, sheet pilings and angles.
During more than 10 years of experience MFL made its name for being a competent and experience partner for sawing and milling technology and provides technical know-how combined with latest state of the art technology.
MFL will be present at the Tube Moscow 2011 / Austrian Pavilion to present its latest technologies and advances.

Компания Maschinenfabrik Liezen und Gießerei GmbH, Австрия

Компания Maschinenfabrik Liezen und Gießerei GmbH (MFL), Австрия, поставляет изготовленное по заказу оборудование для резки и фрезерования производителям труб по всему миру.
Ассортимент продукции компании включает станки для фрезерования кромки листа для производства электросварных труб, фрезерования кромки полосовой стали для производства прямошовных сварных труб, станки для порезки слоями бесшовных труб и профилей, станки с дисковыми пилами для поштучной резки труб, заготовок, слитков и профилей, станки для обработки сварного шва и станки для снятия фаски.
Уникальная модель станка для обработки сварного шва позволяет удалять верхний слой внутреннего и наружного сварного шва труб большого диаметра длиной более 400 мм. Этот процесс обработки обладает рядом преимуществ по сравнению с обычным процессом абразивной зачистки вручную.
Станки компании для порезки дисковыми пилами в холодном состоянии используются для резки нержавеющей стали, высоколегированной и низколегированной стали, конструкционной стали и цветных металлов в форме заготовок, труб, профилей и листов. Станки оборудованы ленточными пилами с твердосплавной режущей кромкой, которая обеспечивает высокие эксплуатационные характеристики, длительный срок службы и снижение расходов. Станки для резки разделяются на станки для поштучной резки и резки слоями. Станки для поштучной резки могут резать заготовки и трубы диаметром от 30 до 800 мм. Станки для резки слоями используются для резки труб, двутавровых балок и швеллеров, листовой металл в пакетах и уголки.
Компания MFL в течение более чем 10 лет работала над созданием своего имени как компетентного и опытного партнера в области технологий резки и фрезерования и обеспечения техническими ноу-хау в сочетании с последними достижениями технологии. Компания MFL будет участвовать в выставке Трубы в Москве в павильоне Австрии и продемонстрирует свои новейшие технологии и достижения.

Maschinenfabrik Liezen und Gießerei GmbH

奥地利　展台TBC

奥地利Maschinenfabrik Liezen和Gießerei GmbH (MFL) 公司为全球管道制造商提供定制锯切和铣削加工设备。
产品范围包括: ERW管道钢板边缘铣床；纵向焊接管道带钢边缘铣床；无缝管和型材圆盘锯床；管道、坯料、钢锭和型材圆盘单切割锯床；焊缝加工机和管道坡口机。
独特的焊缝加工机可清除长度超过400毫米的大直径管道焊缝内外堆焊。与普通的手工打磨工艺相比，该工艺具有很多优势。
该公司的冷圆盘锯床用来切割不锈钢、高、低合金钢、结构钢和有色金属坯料、管子、型材和板材。所有机器都配有硬质合金锯片，以低成本确保高性能和长寿命。
切割机分为单切割机和层切割机。单边切割机能切割直径30到800毫米的坯料和单管道。层切割机用于切割管道、I型和U型梁、板桩和角钢。
在十多年的经验中，MFL以锯切和铣削技术方面有能力和经验的合作者著称，而且还提供技术知识以及最新最一流的工艺。
MFL公司将出席2011年莫斯科管材展/奥地利展馆展出最新的技术和进展。

Fax: +43 7613 8883 30
Email: saegen.fraesen@mfl.at
Website: www.mfl.at

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USA Stand 7-5 A08

Inductotherm Group
VISITORS to the Inductotherm stand will have the opportunity to discuss tube welding, cutting and heating requirements with applications specialists familiar with the entire range of Thermatool products. These also include seam normalising, full body heating/annealing systems, and Thermatool's new quench and temper systems.

Producers of API grade oil and gas pipe may also be interested to discuss Thermatool's new Smart Annealing system, which when used in conjunction with orbital seam tracking has been designed to provide the operator with a greater level of process control.

Inductotherm is also a supplier of Radyne induction heating systems for pipe pre-heating prior to the application of protective coating. Radyne has considerable experience with multi-layered PE and FBE coating applications on pipes up to 120" in diameter.

With over 1,400 solid-state HF welders in operation worldwide, Thermatool has a welder for every application. At Tube Russia the company will introduce its new compact single cabinet welder, suitable for tube producers who only need to weld a limited product range. This new welder offers high electrical efficiency at an affordable price, making it an option when replacing older thermionic valve units.

Компания Inductotherm Group
Посетители стенда компании Inductotherm получат возможность обсудить со специалистами, знающими весь ассортимент продукции компании Thermatool, требования к сварке труб, резке и нагреву, а также вопросы отжига шва, системы нагрева и отжига всего тела, включая новые системы закалки и отпуска компании Thermatool.

Производители труб нефтяного и газового сортамента смогут обсудить новую интеллектуальную систему отжига компании Thermatool, которая при использовании совместно с системой орбитального слежения за швом, позволяет оператору управлять технологическим процессом на более высоком уровне.

Компания Inductotherm является также поставщиком систем индукционного нагрева, производимых компанией Radyne, для предварительного нагрева труб перед нанесением защитного покрытия. Компания Radyne обладает значительным опытом в области нанесения многослойных покрытий из полиэтилена или порошков эпоксидной смолы на трубы диаметром до 120".

Компания Thermatool может предложить сварочную установку для любой области применения.

Во всем мире работает более 1400 полупроводниковых высокочастотных сварочных установок компании. На выставке Трубы в Москве компания продемонстрирует свою новую компактную модель сварочной установки, которая представляет интерес для производителей сварных труб с ограниченным диапазоном размеров. Эта новая модель обладает высоким кпд при доступной цене и ею можно заменять старые ламповые модели.

Inductotherm Group

美国　展台7-5 A08

到Inductotherm展台的参观者将有机会与熟悉整个Thermatool产品范围的应用专家讨论管子焊接、切割和加热要求。这些包括焊缝正火、通体加热/退火系统、以及Thermatool新的淬火和回火系统。
API级油、气管道生产商可能也会有兴趣讨论Thermatool的新智能退火系统，当与轨道焊缝跟踪配合使用时可向操作者提供更高水平的过程控制。

Inductotherm也是Radyne感应加热系统供应商，该系统用于管道保护涂层涂装前的管道预热。Radyne拥有在直径120”管道上涂装多层PE和EBE涂层的丰富经验。
有1,400多台固态高频焊机在世界各地运行的Thermatool公司拥有拥有所有应用的焊机。在俄罗斯管材展上，公司将介绍新的小型单机箱焊机，适用于需要焊接有限产品范围的管道生产商。这种新焊机能提供可承受价高电效率，当替换旧的热离子管装置时可选择它。

Fax: +1 609 267 7894
Email: info@inductothermgroup.com
Website: www.inductothermgroup.com

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Germany　Stand TBC

Sikora AG

SIKORA AG, manufacturer and worldwide vendor of measuring and control technology for the hose & tube and cable industry, will attract attention with the presentation of cutting edge technology at the Tube/Wire Russia 2011 in Moscow.

A highlight on the Sikora-booth is the new X-RAY 6000 series for the measurement of wall thickness, eccentricity, inner and outer diameter and ovality at hose and tube extrusion lines. The X-RAY 6000 includes XLL-X-Ray tubes (eXtra-Long-Life tubes) and provides a selectable measuring rate of 1 to 3Hz (optional 10, 100Hz).

Other highlights on the Sikora booth are the Length 6000 for non-contact online measurement of produced lengths of hoses and tubes and the second generation of its successful diameter LASER gauge heads. The new LASER Series 6000 includes a number of technological innovations, one being a measuring rate of 2.5 kHz.

Компания Sikora AG

Компания Sikora AG, производитель и поставщик контрольно-измерительного оборудования для труб, шлангов и кабеля по всему миру, рассчитывает привлечь внимание посетителей выставки Трубы/Проволока Россия 2011 в Москве презентацией новой технологии резки.
Новинкой на стенде компании Sikora является аппаратура серии X-RAY 6000 для измерения рентгеновскими лучами толщины стенки, разностенности, внутреннего и наружного диаметров и овальности в линии прессования труб и шлангов. Серия X-RAY 6000 снабжена трубками XLL-X-Ray с продолжительным сроком службы и обеспечивает выбор частоты измерения от 1 до 3 Гц, (по заказу 10, 100 Гц).

Еще одной особенностью стенда компании Sikora станет прибор Length 6000 для бесконтактного измерения в линии длины труб и шлангов, а также второе поколение успешно применяемых лазерных измерительных головок. Новая лазерная аппаратура серии Series 6000 обладает рядом технологических инноваций, одной из которых является частота измерения 2,5 кГц.

Sikora AG

德国　展台TBC

软管/管道和电缆业测量和控制技术制造商和全球供应商SIKORA AG公司将在莫斯科举行的2011年俄罗斯管材/线材展上展出高精尖技术来吸引眼球。

Sikora展位上的亮点是软管和钢管挤出生产线上的新型X射线6000系列壁厚、离心率、内外径和椭圆度测量仪。X-RAY 6000系列包括XLL-X-Ray管子测量仪（超长使用寿命钢管），可提供1到3赫兹测量率（有10, 100赫兹可选）。

Sikora展位上的其他亮点是用于软管和钢管生产长度测量的Length 6000非接触式在线测量仪以及第二代成功的直径LASER测头。该新的LASER Series 6000系列包括很多技术创新，其中之一是测量率为25 00赫兹。

SIKORA AG – Germany
Fax: +49 421 48900 90
Email: sales@sikora.net
Website: www.sikora.net

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Germany　Stand TBC

Gebr Lennartz GmbH & Co KG

GEBRÜDER Lennartz GmbH & Co KG manufactures and supplies carbide-tipped circular saw blades for the ferrous and non-ferrous industry.

The company has introduced a new development in saw blade technology. The X-max blade is a circular tipped saw blade designed for cutting special and high alloy steel produced by the seamless tube, forging, aircraft and automotive industries.
Due to continuous enquiries for circular saw blades for cutting high chromium steel with more than 10% chrome, nickel base alloys, stainless steel, duplex and super duplex, Lennartz decided to offer a suitable cutting tool to meet customers' requirements. Previously, it was almost impossible to cut these materials economically with carbide-tipped saw blades because of the very low wear life in relation to the cost of the blade.

The company states that successful trials together with targeted customers, users and machine manufacturers have shown that the X-max blade is able to achieve life times which are five to seven times higher than conventional circular saw blades.

Cutting the X20Cr13 grade, the X-max reached a material removal of nearly 16m2. Conventional blades reach a material removal of 3m2 maximum. The same results were proven when cutting P91/T91. The achieved wear life is 9 to 13m2, compared to 3 to 5m2.

Alloys that were nearly impossible to cut with any saw blade, are now said to be easy work for the X-max blade. With the X-max blade, one customer achieved a material removal of more than 7m2 when cutting super duplex material.

Further wear life tests and enhancements are planned to further improve the blades' performance. Lennartz claims that using the X-max blade is an advantage for any application with difficult alloys or steel grades, and that this applies for cutting tubes (single or layer) as well as for cutting billets.

Компания Gebr Lennartz GmbH & Co KG

Компания GEBRÜDER Lennartz GmbH & Co KG производит и поставляет пилы с твердосплавной режущей кромкой для резки черных и цветных металлов.
Компания внедрила новые разработки в технологию производства дисковых пил. Пила серии X-max является дисковой пилой с твердосплавной режущей кромкой, разработанная для резки специальных и высоколегированных стальных сплавов, применяемых при производстве бесшовных труб, ковке, а также в авиационной и автомобильной промышленности.

Компания Lennartz решила предложить соответствующее устройство для резки, чтобы

удовлетворить требования заказчиков к дисковым пилам для резки сталей с высоким (более 10%) содержанием хрома, сплавов на основе никеля, нержавеющей стали, а также дуплексной и супердуплексной стали. Ранее экономично резать эти материалы с помощью дисковых пил с твердосплавной режущей кромкой было практически невозможно из-за непродолжительно срока службы и высокой стоимости пилы.

Компания утверждает, что успешные испытания совместно с потребителями, пользователями и производителями оборудования показали, что срок службы пилы серии X-max в 5-7 раз больше чем у традиционных дисковых пил.

При резке стали марки X20Cr13 пилой серии X-max можно достичь снятия материала около 16 м2. Традиционные пилы достигают снятия металла максимум 3 кв. м. Такие же результаты были получены при резке сплава P91/T91. Срок службы пилы до полного износа увеличился с 3-5 м2 до 9-13 м2. .

Теперь с помощью пилы X-max можно легко резать даже сплавы, которые было практически невозможно резать никакой пилой. Один из заказчиков, используя пилу X-max при резке супердуплексной стали, достиг величины снятия металла более 7 м2.
Планируется проведение дальнейших испытаний для увеличения срока службы и улучшения эксплуатационных характеристик пилы. Компания Lennartz заявляет, что использование пилы X-max выгодно для резки твердых сплавов и сталей. Эти пилы можно применять как для резки труб (поштучно или пакетом), так и для резки заготовок.

Gebr Lennartz GmbH & Co KG德国　展台TBC
GEBRÜDER Lennartz GmbH & Co KG公司制造和供应用于黑色金属和有色金属业的硬质合金圆盘锯锯片。公司介绍了锯片技术的新发展。X-max锯片是一种圆盘硬质合金锯锯片，用于切割无缝管、锻造、飞机和汽车业生产的特殊钢和高合金钢。

由于收到对用于切割超过10%铬含量的高铬钢、镍基合金、不锈钢、双相钢和超双相钢的圆盘锯锯片连续不断的询价， Lennartz决定了提供满足客户要求的切割工具。之前，几乎不可能用硬质合金锯片经济地切除这些材料，因为与锯片成本相关的磨损寿命非常低。
公司表示成功的尝试加上目标客户、用户和机械制造商们显示出X-max锯片能达到的使用寿命比传统的圆锯片高5到7倍。

在切割X20Cr13钢种时，X-max达到了近16m2的材料切除。传统锯片最大只能达到3m2材料切除。在切割P91/T91时相同的结果也得到了证明。与3 to 5m2相比，达到的磨损寿命是9 到13m2。
合金在以前几乎是不可能用任何锯片切割的，但现在据说用X-max锯片是非常容易加工的。有了X-max锯片，客户在切割超双相钢时达到了超过7m2的材料切除。
进一步的磨损寿命试验以及改进将计划用来进一步提高锯片性能。Lennartz声称使用X-max锯片对任何难的合金或钢种切割都是一种优势，而且这适用于切割管材(单或层切割)以及坯料。

Fax: +49 2191 9960 60
Email: info@lennartz.de
Website: www.lennartz.de

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France　Stand TBC

Contrôle Mesure Systèmes
CONTRÔLE Mesure Systèmes provides eddy current and ultrasonic solutions and products all over the world, and is especially involved in wires and bars, tubes and pipes, plates and sheets, automotive parts inspection and nuclear plants.

CMS is able to offer a large range of NDT equipment and key standard or specific installations, to provide optimal solutions for applications in the laboratory, on-site or on the production line. All systems meet quality standards such as API, ASTM and DIN, and can be used on- or off-line.

Tele-maintenance in real time, via networking, allows CMS technicians to connect and take a remote control of devices, offering users high quality technical support with fast response.
Instruments, associated to a full range of accessories, allow CMS to offer the best solution corresponding to customers' eddy current and ultrasonic inspection requirements.

The company's eddy current range includes Zet@ brand mono- or multi-channel instruments, special software, high-speed data acquisition systems with real-time visualisation, and accessories like rotating heads, rotating systems, magnetising and demagnetising units, and eddy current probes and coils for specific applications and standards.

The ultrasonic range includes the usc-100 ultrasonic instrument, and immersion tanks for pipes inspection. The ultrasonic rotating head for tube inspection is available in different sizes, from 6 to 130mm, for internal defect detection and thickness and diameter measurement. It provides high precision inspection and accurate defect detection (5% of wall thickness and measurement accuracy of ±2µm).

Компания Contrôle Mesure Systèmes

Компания CONTRÔLE Mesure Systèmes предлагает свои разработки для вихретокового и ультразвукового контроля, особенно в области производства проволоки и прутков, труб различного назначения, тонкого и толстого листового металла, контроля запчастей автомобилей и ядерной техники.

Компания CMS может предложить широкий ассортимент оборудования для неразрушающего контроля, а также основные стандартные или специальные установки для работы в лаборатории, инспектирования на месте или в линии производства. Все системы соответствуют стандартам качества, таким как API, ASTM и DIN, и могут использоваться как в линии производства, так и вне линии.

Дистанционное техническое обслуживание через подключение к сети позволяет технологам компании CMS устанавливать связь и вести дистанционный контроль устройств для качественной технической поддержки пользователей и быстрой обратной связи.
Аппаратура и полный ассортимент приспособлений позволяет компании CMS предлагать самые лучшие решения в соответствии с запросами заказчиков в области ультразвукового и вихретокового контроля.

Ассортимент компании в области вихретокового контроля включает одно- и много-канальные приборы марки Zet@, специальное программное обеспечение, высокоскоростные системы сбора данных с визуализацией в реальном времени, а также приспособления, такие как вращающиеся головки и системы, узлы намагничивания и размагничивания, вихретоковые датчики и катушки для специального применения и стандартов.

Ассортимент ультразвуковых приборов включает ультразвуковой прибор серии usc-100, а также иммерсионный бак для контроля труб. Ультразвуковые вращающиеся головки для контроля труб могут поставляться от 6 до 130 мм для обнаружения внутренних дефектов и измерения толщины и диаметра. Они обеспечивают контроль высокой точности и тщательное обнаружение дефектов (5% толщины стенки и точность измерения ±2 мкм).

Contrôle Mesure Systèmes

法国 展台TBC
CONTRÔLE Mesure Systèmes公司向全球提供涡流和超声波检测解决方案及产品，尤其是涉及线材、棒材、管材、板材和片材、汽车零部件检查和核电厂。

CMS能够提供大范围的无损检测设备和主要的标准或特定装置，为实验室、现场或生产线提供最佳解决方案。所有系统都能满足质量标准，如API、ASTM和DIN，而且在线或离线使用。
通过网络的实时远程维护使得CMS技术人员能接通和远程控制设备，快速相应用户向他们提供高质量技术支持。

与全部配件相关的仪表使CMS能为客户的涡流和超声波检查要求提供最好的解决方案。
公司的涡流范围包括Zet@牌单通道或多通道仪表、专用软件、实时可视化高速数据采集系统以及一些配件，像旋转头、旋转系统、磁化和退磁装置、涡流探头和用于特殊应用和标准应用的线圈等。
超声波范围包括usc-100超声仪以及检查管道的。管道检查用超声波旋转头有6到130毫米不同的尺寸大小，用于内部缺陷、厚度以及直径测量。它提供高精度检查和准确的缺陷检测（5%壁厚和±2μm测量精度）。

Fax: +33 3 8594 1415
Email: contactcms@cmseddyscan.com
Website: www.cmseddyscan.com

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Germany Stand TBC

Bültmann GmbH
COPPER tubes for sanitary and industrial purposes require fine-grained microstructures. The disadvantage of the widely used production process (casting, extruding, drawing) is a comparatively large eccentricity of extruded tubes, which cannot be completely eliminated by drawing.
Another production process includes casting thick-walled tubes, peeling the outer surface, reducing by rolling and drawing. Due to the heat generated during rolling, the tubes are soft-annealed. Disadvantages here are that the annealing conditions are not controllable, resulting in differing results. Furthermore, high-priced pierce rolling mills are mono-plants: dimensional changes require expensive tools and extended changeover times.

Bültmann has developed a cast and draw production process for copper tubes that displays none of these disadvantages. The process allows casting of tubes, regardless of wall thickness. Thin-walled tubes can be cast and then machined on drum-type drawing machines, and eccentricity is claimed to be virtually non existent.

Peeling of the surface is performed by two methods. Generally it is carried out using millers or peeling machines. The outer surface of thin-walled cast tubes, however, can also be peeled with shaving tools, so that additional equipment is not required.
Drawing of cast tubes is carried out on conventional machines such as drawbenches and drum-type drawing machines, and annealing or continuous annealing is used to generate the fine grain structure required. In furnaces, annealing parameters can be strictly observed and adjusted.
The individual production steps are carried out successively and are adjustable according to the particular conditions, resulting in consistent quality.

Observing this process, Bültmann carried out trials with thick-walled cast tubes, which were drawn with different reduction parameters and subsequently annealed. At a certain reduction degree, a fine-grained result was achieved.
The new cast and draw production process combines simple, well-known operations, without requiring expensive, energy-intensive extrusion presses or rolling mills.

Компания Bültmann GmbH
Для медных труб, используемых в санитарно-техническом оборудовании и промышленности, требуется мелкозернистая структура. Недостатком процессов, используемых для их производства (литье, прессование, волочение), является сравнительно большая разностенность прессованных труб, которую невозможно полностью устранить волочением.

Еще один производственный процесс включает литье толстостенных труб, зачистку наружной поверхности, редуцирование при прокатке и волочении. Из-за тепловыделения в процессе прокатки трубы подвергаются смягчающему отжигу. В данном случае недостатком является отсутствие контроля условий отжига, что приводит к различным нежелательным результатам. Кроме того, дорогостоящие прошивные станы являются моно-установками: переход на новый размер требует использования дорогостоящих приспособлений и увеличивает время перенастройки.
Компания Bültmann разработала процесс производства медных труб способом литья и волочения,

который не имеет этих недостатков. Процесс позволяет отливать трубы независимо от толщины стенки. Тонкостенные трубы можно отливать, а потом обрабатывать на волочильных станах барабанного типа, причем разностенность будет практически отсутствовать.

Зачистка поверхности осуществляется двумя способами. Обычно она выполняется с помощью станков для механической зачистки. Наружная поверхность тонкостенных литых труб также может быть зачищена с помощью отделочных резцов, поэтому дополнительное оборудование не требуется. Волочение литых труб выполняется на традиционном оборудовании, таком как волочильные станы линейного или барабанного типа. Отжиг или непрерывный отжиг используется для получения требуемой мелкозернистой структуры. В печах параметры отжига могут точно контролироваться. Выполняется цепочка технологических операций, которые настраиваются в соответствии со конкретными условиями и обеспечивают постоянное качество.

Компания Bültmann при изучении этого процесса проводила испытания с толстостенными литыми трубами, которые прошли обработку на волочильных станах с использованием различных параметров редуцирования и соответствующий отжиг. При определенной степени редуцирования была получена мелкозернистая структура.

Новый процесс комбинированного литья и волочения включает простые, хорошо известные технологические операции и не требует использования дорогих энергоемких прессов или прокатных станов.

Bültmann GmbH
德国　展台TBC
卫生和工业用铜管要求精细的微结构。广泛使用的生产工艺(铸造、挤压、拉拔)的缺点是所挤出管子的离心率较大，通过拉拔是不能完全消除的。
另一种生产工艺包括铸造厚壁管、修整外表面、通过滚压和拉拔的减径。因轧制过程中产生的热量，管子是软退火的。这里的缺点是退火条件是不可控的，从而导致不同的结果。此外，昂贵的皮尔格式轧机是单装置：尺寸变化需要昂贵的工具和延长的转换时间。
Bültmann公司开发了一种铜管铸造和拉拔生产工艺，该工艺没有出现这些缺点。该工艺可以铸造管道，不管壁厚是多少。薄壁管道可以铸造，然后在滚筒式拉拔机上加工，据说离心率几乎不存在。
表面修整由两种方式完成。一般来说是使用铣床或修整机进行。薄壁铸造管的外表面，然而也可用表面修整工具进行修整，这样就不需要额外的设备。
铸管的拉拔是在传统的机器上完成的，如拉床和滚筒式拉拔机，退火或连续退火用来产生所需的精细结构。在熔炉里，退火参数可以严格遵守和调整。
单个生产步骤是相继进行的，并且可根据特定的条件进行调整，以产生一致的质量。
遵守这一工艺，Bültmann公司进行了厚壁铸管尝试，这些管道由不同的还原参数及随后的退火来拉制而成。在一定的还原度，实现精细这一结果。
新的铸造和拉拔生产工艺结简单、熟知的操作于一体，无需昂贵、耗能的挤压机或轧钢机。

Fax: +49 2394 18 171
Email: info@bueltmann.com
Website: www.bueltmann.com

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Italy　Stand TBC

Emmedi, SAET Group
EMMEDI, the tubes and pipes division of induction provider SAET Group, is still seeing a high demand for vacuum tube high frequency welders (HFWs) for specific applications and in some geographical areas. 50% of the sales of Emmedi HFWs are HFW vacuum tubes (Emmedi HFW Classic) and 50% are solid state (the new Emmedi state-of-the-art HFW solid state MosWeld).
In Europe Emmedi has recently commissioned an HFW vacuum tube, the HFW Classic, with an output power of 1,200kW for the production of carbon steel tubes up to OD 229mm, and wall thickness of 13mm. The customer decided to use the robust and reliable HFW Classic instead of the newer solid state technology. This decision was made for objective reasons, including reliability, strength, flexibility, simplicity of use,

maintenance free, economical spare parts availability, low ownership costs, and the service support offered by the global department of SAET Group.
In addition, the Central and South America areas are very attached to the Emmedi HFW Classic, and in some cases Emmedi has replaced an HFW solid state welder with a brand new Emmedi HFW Classic. It is a suitable choice for customers that are not familiar with solid state technology and do not have very skilled shop-floor people, or have a high turnover of employees.
The simplicity of the technology and the reliability of the equipment thanks to oversized components ensures long equipment life and production reliability.

Компания Emmedi, SAET Group

EMMEDI, трубное отделение компании SAET Group, производителя установок для индукционного нагрева, наблюдает высокий спрос на ламповые высокочастотные сварочные установки (HFWs), которые используются для специальных целей в некоторых регионах. 50% продаж сварочных установок компании Emmedi – это классические ламповые высокочастотные установки, а 50% - полупроводниковые установки, новые современные высокочастотные сварочные установки компании Emmedi серии MosWeld.
Компания Europe Emmedi недавно ввела в эксплуатацию высокочастотную ламповую сварочную установку HFW Classic, которая имеет выходную мощность 1200 кВт, для производства труб из углеродистых сталей диаметром до 229 мм и толщиной стенки 13 мм. Заказчик принял решение использовать робастную сварочную установку HFW Classic вместо современной полупроводниковой техники. Это решение было принято по объективным причинам, которые включали требование надежности, прочности, гибкости, простоты эксплуатации, отсутствия необходимости в обслуживании, получения экономичных запчастей, невысокой стоимости и сервисного обслуживания международным отделением компании SAET Group.
Кроме того, регионы Центральной и Южной Америки больше склонны к сварочной установке компании Emmedi HFW Classic, а в некоторых случаях, компания Emmedi осуществляла замену полупроводниковых сварочных установок на новую модель компании Emmedi HFW Classic. Этот выбор очень удобен для заказчиков, которые не знакомы с полупроводниковой технологией и не имеют в составе своего персонала квалифицированных специалистов-технологов, либо имеют большую текучесть кадров.
Простота использования технологии и надежность оборудования благодаря массивным компонентам обеспечивает продолжительный срок службы и надежность производственного процесса.

Emmedi, SAET Group

意大利 展台TBC
SAET Group集团的管道感应供应分部EMMEDI任正看到一些具体应用和一些地域内对真空管高频焊机(HFWs)的高需求。Emmedi HFWs50%的销售是HFW真空管(Emmedi HFW Classic)，另外50%是固态技术（新型Emmedi一流的HFW固态MosWeld）Emmedi最近在欧洲调试了一种HFW真空管HFW Classic，外径229毫米、壁厚13毫米的碳钢管的生产输出功率为1,200kW。客户决定使用稳健可靠的HFW Classic而不是较新的固态技术。这一决定的客观原因包括可靠性、强度、灵活性、使用简单性、无需维护、经济备件的可用性、低所有权成本以及由SAET Group集团全球部门提供的服务支持。

此外,中美洲和南美洲地区非常喜欢Emmedi HFW Classic，在一些情况下，Emmedi用全新的Emmedi HFW Classic取代了HFW固态焊机。这对那些不熟悉固态技术、无非常熟练的车间人员或具有高职员流动的客户来说是一个适当的选择。超大部件带来的技术的简单性和设备的可靠性能确保长的设备寿命和生产可靠性。

Fax: +39 011 9974328
Email: info@saetgroup.com
Website: www.saetgroup.com

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Switzerland Stand TBC

Zumbach Electronic AG

ZUMBACH will exhibit a selection of its broad range of measurement and control systems.

Products include Speel 3000 for true length and speed measurement even down to zero speed; Odac® laser diameter scanners (single, dual and triple axis models); Umac® Wallmaster ultrasonic wall thickness measurement and control system; Odex® combined laser/magnetic non-contact concentricity gauge and diameter measuring system; and DVW oscillating device with Odac laser diameter gauge for sector cable measurement and similar applications.

Other Zumbach products include Usys high-end multi-sensor data acquisition, processing and display units; Profilemaster® non-contact profile measurement systems, based on laser contouring and CCD camera vision and processing; and the Simac® quality surface inspection system based on machine vision technology. A complete line of Windows-based software packages is available for functions such as data logging, remote viewing and multi-part measurement.

Компания Zumbach Electronic AG

Компания Zumbach будет демонстрировать ряд систем для контроля и измерения из своего широкого ассортимента продукции.

Ассортимент продукции включает систему Speel 3000 для измерения точной длины и скорости даже при скорости, близкой к нулевой; лазерные системы измерения диаметра Odac® (модели с одной, двумя и тремя осями); ультразвуковую систему контроля и измерения толщины стенки серии Umac® Wallmaster; совмещенную лазерно-магнитную бесконтактную систему измерения концентричности и диаметра Odex® ; и осциллирующее устройство серии DVW с лазерным сканером серии Odac для измерения кабеля и подобной продукции.

Другая линейка продукции компании Zumbach включает системы для многодатчикового сбора, обработки и отображения данных, системы бесконтактного измерения профиля серии Profilemaster® на принципе лазерного распознавания контуров с применением ПЗС-видеокамер; а также систему контроля качества поверхности на базе технологии машинного зрения Simac® .
Возможна поставка полных пакетов программного обеспечения на базе Windows для таких функций как регистрация данных, дистанционное наблюдение и многономенклатурное измерение.

Zumbach Electronic AG

瑞士 展台TBC

ZUMBACH将展出其广泛的测量与控制系统精选品。
产品包括用于即使是速度降到零的实际长度和速度测量仪Speel 3000；Odac®激光直径扫描仪（单、双或三轴型）；Umac® Wallmaster超声波壁厚测量和控制系统；Odex®联合激光/磁力非接触同心度测量仪和直径测量系统；以及用于扇心电缆测量和类似应用的Odac 激光直径检测仪DVW振荡装置。

Zumbach的其他产品包括Usys高端多传感器数据采集、处理和显示装置；以激光造型和CCD摄像机以及处理为基础的Profilemaster®非接触式测厚系统；以及基于机器视觉技术的Simac®表面质量检测系统。
完整的以Windows为基础的软件包可用于如数据记录、远程观察和多部件测量这些功能。

Fax: +41 32 356 04 30
Email: sales@zumbach.ch
Website: www.zumbach.com

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Germany Stand TBC

Markator Manfred Borries GmbH

THE CNC handheld marking system MV5 M75 has been equipped with a new space-saving controller, MV5 ZE 301 XL, as part of Markator's XL product development project. The controller's features include a high-resolution LC colour display and three USB interfaces. These new interfaces enable the use of a PC keyboard, a barcode scanner or a USB memory stick.

The transfer of marking files from an external PC or the administration of logo files can be performed easily. Software update is possible via USB. Hundreds of marking files or logos can be saved directly on the controller, and an external hard disk is unnecessary.

The device is a compact, electro-pneumatically operated marking system for efficient, permanent and quick markings for all kind of metal parts (even hardened steel, up to maximum 62 HRC), plastics, wood, glass, etc, with variable texts. It can also mark finished products that are sensitive to pressure, thin walled, laminated or round. The system is specially developed for marking on heavy and unmovable parts directly on location.

Компания Markator Manfred Borries GmbH
Переносная система маркировки с программным управлением серии MV5 M75 снабжена новым компактным контроллером MV5 ZE 301 XL и является частью проекта компании Markato, нацеленного на разработку новой продукции серии XL r. Особенности контроллера включают цветной дисплей с высокой степенью разрешения и три USB интерфейса. Эти новые интерфейсы позволяют использовать клавиатуру персонального компьютера, сканер штриховых кодов или USB карту памяти.

Легко осуществляется передача маркировочных файлов от наружного персонального компьютера и администрирование файлов. Обновление программного обеспечения можно осуществлять через USB порт. Сотни маркированных файлов или логограмм можно хранить непосредственно на контроллере, и наличие жесткого диска не обязательно.
Устройство является компактной, электропневматической сис
темой маркировки для эффективной, долговременной и быстрой маркировки всех видов металлопродукции (даже закаленной стали твердостью максимум 62 HRC), пластмасс, дерева, стекла и др. с нанесением различных текстов. Готовую продукцию, включая хрупкие изделия, тонкостенные, ламинированные или круглые изделия, также можно маркировать. Система специально разработана для маркировки тяжелых и неподвижных деталей непосредственно на месте их нахождения.

Markator Manfred Borries GmbH
德国 展台TBC

数控手持标识系统MV5 M75已配有新的空间节省控制器MV5 ZE 301 XL，作为Markator的XL产品开发项目的一部分。该控制器的特征包括高分辨率液晶彩色显示屏和三个USB接口。这些新的接口使电脑键盘、条形码扫描仪或一个USB记忆卡可以使用。
来自内部电脑或标志文件管理的标识文件的传送可以方便地进行。软件更新可通过USB完成。成百上千的标识或标志可直接在控制器上保存，不需要外部硬盘。
该装置是小型电气动操作的标识系统，可以用各种文本有效、永久和快速的标识各种金属部件（甚至是最大达到62 HRC的硬化钢）、塑料制品、木材和玻璃等。它还能够标识对压力敏感、薄壁、层状或圆形的成品。该系统是专门用来直接在位置上标识重型固定部件。

Fax: +49 7144 8575 600
Email: info@markator.de
Website: www.markator.de

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Spain Stand TBC

Euromáquina, SA
EUROMÁQUINA has developed FILTRA4, a filter for emulsion that provides reliable and homogeneous filtration, easy installation and operation, zero consumables, zero maintenance, and reduction of cost of waste disposal.

The filtering system makes it possible to obtain a high cleaning level and a complete removal of non-soluble oils, with no maintenance and no consumables.

Euromáquina also sells second-hand equipment, with full revamping available as an option. The company has recently expanded its network, with new contacts and projects in Eastern Europe and Russia, and with a new Russian-speaking sales engineer, Ms Olga Karakash.

Компания Euromáquina, SA

Компания EUROMÁQUINA разработала фильтр FILTRA4 для эмульсии, который обеспечивает надежную и однородную фильтрацию, легкость установки и эксплуатации, не требует расходных материалов и обслуживания, а также снижает стоимость удаления отходов. Система фильтрации обеспечивает получение высокой степени очистки и полное удаление нерастворимых масел без обслуживания и расходных материалов.

Компания EUROMÁQUINA также продает оборудование, бывшее в употреблении, а при необходимости производит полный его ремонт. Недавно компания расширила свою сеть благодаря новым контактам в Восточной Европе и России и помощи Ольги Каракаш, нового русскоговорящего инженера по продажам.

Euromáquina, SA

西班牙 展台TBC
EUROMÁQUINA公司开发了FILTRA4乳剂过滤器，该过滤器提供可靠均匀的过滤、易于安装和操作、零耗材、零维护和废品处理成本降低。
过滤系统可获得高清洁度和不溶性油的完全清除，无需维护和耗材。
Euromáquina也销售二手设备，并提供全部检修，作为一种选择。公司最近通过在东欧和俄罗斯的新的联系人和项目，新的会讲俄语的销售工程师Ms Olga Karakash来扩大了网络。

Email: comercial@euromaquina.com
Website: www.euromaquina.com

TECHNOLOGY

New inspection tools for pipe manufacture

ON numerous visits to pipe mills around the world, Optical Metrology Services (OMS) has noticed that the tools being used to inspect pipes are not up to the standard expected by demanding clients in the oil and gas sector.

One example is the case of a quality control manager explaining how pipe straightness is measured. He illustrated how the fishing line was tightened between the ends of the pipe and the gap between the line and the pipe was measured. Unfortunately, when he questioned the inspector he was informed that he estimated the distance by eye. The supervisor asked him to find a ruler and he was not able to find one.

A number of Pipe CheckerTM tools have been developed by OMS to provide accurate, traceable quality control information to pipe mills. Pipe straightness is measured using a laser tool that is calibrated and enables an operator to easily determine the out of straightness of a pipe at any point along its length.

Dr Clarke, founder of OMS, commented, “I am personally amazed that pipe mills do not have technology like this to understand their manufacturing processes in more detail. We are often brought in to provide missing information about dimensions such as pipe shape, ovality, end-squareness, bevel geometry, weld geometry, and counterboring, to name but a few.”

The pipe straightness tool consists of a laser, which is magnetically clamped to a pipe. The laser beam is steered until it aligns with a line at the opposite end of the pipe which is at exactly the same height as the laser beam. As the laser beam is straight, does not bend under gravity and is not deflected by wind, moving a measuring device between the two ends of the pipe allows the pipe straightness to be measured from a digital readout.

Новые приборы контроля для производства труб

При посещении многих трубных предприятий во многих странах специалисты компании Optical Metrology Services (OMS) отмечали, что приборы, используемые при контроля труб, не отвечают требованиям потребителей из нефтегазовой промышленности.

Один руководитель отдела контроля качества объяснял, как производится измерение прямолинейности труб. Он показал, как между концами трубы натягивается рыболовная леска, а затем измеряется зазор между нею и трубой. К сожалению, когда он задал вопрос контролеру, как он измеряет этот зазор, тот ответил, что определяет его на глаз. Руководитель попросил его найти линейку, но он не смог найти её.

Компания OMS разработала серию приборов Pipe CheckerTM для точного и прослеживаемого контроля качества на трубных станах. Прямолинейность трубы измеряется с помощью калиброванного лазерного прибора, что позволяет оператору легко определять отклонение от прямолинейности трубы в любой точке по всей её длине.

Д-р Кларк, основатель компании OMS, сказал: «Я лично удивляюсь, почему трубные станы не располагают подобной техникой, чтобы более подробно узнать всё о своих производственных процессах. Нам часто приходится предоставлять им отсутствующую информацию о таких параметрах, как профиль трубы, овальность, перпендикулярность торцов, геометрия скоса кромки, геометрия сварного шва или цилиндрическое зенкование и т.п.»

Прибор для проверки прямолинейности труб состоит из лазера, который с помощью магнита устанавливается на трубе. Лазерный луч направляется так, чтобы он совместился с кромкой противоположного конца трубы, которая находится на точно такой же высоте, что и лазерный луч. Так как лазерный луч прямой, не сгибается под действием силы тяжести и не отклоняется ветром, то перемещение измерительного устройства между концами трубы позволяет измерять её прямолинейность с цифровым выводом результатов.

管道制造用新型检测工具

在多次参观全球轧管机后，Optical Metrology Services (OMS)公司注意到用于管道检测的工具还不能达到石油和天然气领域高要求客户所期望的标准。
其中一个例子就是质量控制经理解释的管道平直度是怎么测量的一个案例。他举例说明了，精整线在管道两端是怎么加固的，生产线之间的间隙和管子是怎么测量的。很遗憾的是当他在问检查员时，检查员回答说通过目测来估计距离。主管要求他找一把尺子时，他却找不到。

很多Pipe CheckerTM工具已被OMS开发用来为钢管厂提供准确、可追溯性的质量控制信息。管道平直度是使用调校过的激光工具测量的，该工具使操作者可以方便地确定沿管道长度任何点的管道平直度偏离。
OMS创始人 Dr Clarke评价到："我个人对钢管厂没有像这样的技术来更详细的理解他们的制造过程感到很惊讶。我们通常被带到提供关于一些尺寸缺少的信息，如管道形状、椭圆度、端部方形度、坡口形状、焊接形状以及扩孔，不一而足。"

管子平直度检测工具包括靠磁性夹持到管道的激光器。激光束被操纵，直到其与激光束高度恰好相同的管道另一端的线对齐。当激光束是笔直的情况下，不会在重力作用下弯曲，而且不被风吹偏离，这时，移动管道两端的测量装置使管道平直度通过数字读出。

Optical Metrology Services – UK
Fax: +44 8700 940014
Email: sales@omsmeasure.com
Website: www.omsmeasure.com

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GE helps Europipe maintain technology leadership

AA ultrasonic testing machine from GE's Inspection Technologies business is helping Europipe to maintain both its competitive advantage and its technology leadership in the manufacture of large diameter, welded steel pipe. The automated inspection system was installed at Europipe's Muelheim plant (UOE-line) two years ago and has been used to ensure that Europipe consistently matches customers' specifications and manufactures high quality pipe, fit for service in the most exacting of operating conditions.

Europipe GmbH was founded in 1991 by combining the experience and competences in the field of plate rolling and large-diameter pipe production of two of the pioneers of the steel industry, AG der Dillinger Hüttenwerke and Mannesmannröhren-Werke AG. The Europipe group manufactures longitudinally and helically welded large diameter pipes in a wide range of diameters and wall thicknesses, in lengths of up to 18.3m (SAWL) or 24m (SAWH).

More than half of the steps in Europipe's manufacturing chain relate to quality control and testing, and the group operates a policy of continual investment in the latest technology to ensure that its rigorous quality standards continue to be met. Non-destructive testing is an area of particular investment and the concept of the new testing machine was developed and designed in close cooperation between Europipe, as an experienced user, and GE's Inspection Technologies business, as a qualified manufacturer of ultrasonic testing machines to meet all demands regarding accuracy, reliability and speed in the existing infrastructure of the mill.

The ultrasonic testing machine represents the latest technology for inspecting submerged arc welded (SAW) pipes. It features several ultrasonic probe configurations to meet most international standards and NDT specifications by applying suitable testing technologies, such as pulse-echo, through transmission and tandem technology, as well as testing on bead and beside the weld. As an additional feature, phased array technology can be used for trials and special testing tasks.

In operation, the corresponding probe holders are moved along the pipe under inspection in a carriage, which provides precise positional control, using GE's field-proven electronics platform both for driving the ultrasonics and acquiring and displaying the inspection data. Twenty inspection channels are available to provide comprehensive coverage for the inspection of longitudinal and transverse flaws in the seam weld and for lamination type flaws in the heat-affected zone. The inspection extends up to the pipe extremities.

GE's Inspection Technologies business offers a comprehensive range of tube and pipe ultrasonic inspec-

tion solutions. This includes systems for full body testing of seamless tubes up to 660mm diameter, using pulse-echo, multiple channels, phased array and paint brush techniques, and helical tube transport, and rotary test systems for high precision inspection, used extensively in the inspection of heat exchanger tubes and nuclear fuel elements.

GE Energy, Measurement & Control Solutions is a leading innovator in advanced, sensor-based measurement, non-destructive testing and inspection and condition monitoring, delivering accuracy, productivity and safety to a wide range of industries, including oil and gas, power generation, aerospace, transportation and healthcare. It has over 40 facilities in 25 countries and is part of GE Energy Services, which provides cleaner, smarter, more efficient solutions for its customers.

Компания GE Measurement & Control Solutions помогает группе Europipe GmbH сохранять свое технологическое лидерство

Установка ультразвукового контроля (УЗК) отделения Inspection Technologies компании GE Measurement & Control Solutions (GE) помогает группе Europipe GmbH сохранять её конкурентоспособность и технологическое лидерство в производстве стальных сварных труб большого диаметра. Система автоматического контроля была установлена на предприятии группы Europipe в Мюльхайме (линия производства сварных труб большого диаметра методом UOE) два года тому назад, для того чтобы удовлетворять требования клиентов и выпускать высококачественные трубы, пригодные для эксплуатации в наиболее сложных условиях.

Группа Europipe GmbH была основана в 1991 г., объединив в себе опыт в области производства толстолистового проката и производства труб большого диаметра двух компаний, первопроходцев металлургической промышленности - AG der Dillinger Hüttenwerke и Mannesmannröhren-Werke AG. Группа Europipe производит прямошовные и спиральношовные сварные трубы большого диаметра в широком диапазоне диаметров и толщин стенки длиной до 18,3 м (прямошовные, метод дуговой сварки под флюсом) или 24 м (спиральношовные, метод дуговой сварки под флюсом).
Более половины операций технологической цепочки группы Europipe связаны с контролем качества и испытанием, поэтому она проводит политику постоянной финансовой поддержки новейших технологий для того, чтобы её продукция всегда отвечала строгим требованиям в отношении качества. Неразрушающий контроль – это отдельная статья финансирования компании. Совместно с отделением Inspection Technologies компании GE, опытным производителем установок для УЗК, группа Europipe, как давний заказчик её продукции, разработала концепцию и конструкцию новой испытательной установки для выполнения всех требований к существующей инфраструктуре стана в отношении точности, надежности и быстродействия.

В этой установке УЗК использована новейшая технология контроля труб, полученных дуговой сваркой под флюсом. Её особенность – наличие нескольких конфигураций УЗ датчиков для удовлетворения требований большинства международных стандартов и техусловий по неразрушающему контролю с применением соответствующих методов контроля, таких как метод отраженных импульсов, с помощью трансмиссионной и тандемной технологии, а также испытание сварного шва и околошовной области. Другой особенностью является то, что в испытаниях можно использовать технологию фазовой сетки.

При работе установки соответствующие держатели датчиков перемещаются вдоль трубы в каретке, которая обеспечивает точность положения с помощью проверенной электроники компании GE, разработанной как для управления ультразвуковым испытанием, так и для сбора и отображения информации, получаемой при контроле. Предусмотрено двадцать контрольных каналов, которые обеспечивают всесторонний контроль для выявления продольных и поперечных дефектов шва и дефектов типа расслоения в зоне термического влияния (ЗТВ). Контролем охватывается вся труба, вплоть до её концов.

Отделение Inspection Technologies компании GE предлагает многочисленные разработки в области ультразвукового контроля труб. Сюда входят системы для контроля всего тела бесшовных труб диаметром до 660 мм с использованием нескольких каналов отраженных импульсов, методы фазовой сетки и кисти, системы спиральной транспортировки труб, а также ротационные системы для высокоточного контроля, которые широко применяются в контроле труб теплообменников и труб оболочек ТВЭЛ.

Компания GE Energy, Measurement & Control Solutions – ведущий новатор в области измерений с использованием датчиков, неразрушающего контроля и контроля состояния. Она обеспечивает точность, производительность и безопасность для многих отраслей промышленности, включая нефтегазовую, энергетическую, аэрокосмическую, автомобилестроительную и медицинскую. Более 40 её предприятий находятся в 25 странах. Она входит в группу GE Energy Services, предоставляя своим клиентам более чистые, совершенные и эффективные решения.

GE公司帮助Europipe公司保持技术领先

来自GE的Inspection Technologies 部门的AA超声波探伤机正帮助Europipe公司保持其在大直径焊接钢管上的竞争优势和技术领先地位。两年前在Europipe的Muelheim工厂(UOE-生产线)安装的自动检测系统已被用来确保Europipe能与客户的性能规范保持一致，并且被用来制造高质量管道，而且适合在最严格的操作条件下使用。

Europipe GmbH公司通过结合钢铁工业两大先锋AG der Dillinger Hüttenwerke以及Mannesmannröhren-Werke AG在板材轧制和大直径管道生产上的经验与能力，于1991年成立。Europipe集团生产直径范围广的大直径、厚壁以及长度达到18.3米 (SAWL)或24米(SAWH)的纵向螺旋焊管。
Europipe制造链中一半以上步骤都是与质量控制和检测相关的，集团运行方针是持续投资最新技术，确保不断满足严格的质量标准。无损检测是特别投资的一个领域，新检测机的概念是有经验的用户Europipe公司和超声波检测机合格的制造商GE的Inspection Technologies部门密切合作开发和设计的，能满足现有制造厂基础设施中准确性、可靠性和速度等全部需求。

该超声波检测机代表了埋弧焊(SAW)焊管检测的最新技术。它的特点是配置有多个超声波探头，通过采用适当的检测技术，如脉冲反射波，来满足最国际化的标准以及无损检测技术规范，还有投射传输和串联技术，以及在焊珠上或焊缝旁边做检测。还有一个特点是相控阵技术，可用于试验和特殊的检测任务。
在操作过程中,相应的探头夹持器在能提供精确定位控制的托架内沿被检查管道移动，并且使用GE公司经现场验证的电子平台，既能驱动超声波又获取并显示检测数据。二十个检查通道可为滚焊纵向和横向缺陷以及热影响区分层型缺陷的提供全面的检测。检查可延伸到管道末端。

GE公司的Inspection Technologies部门提供全面的管道超声检测解决方案。这包括直径660毫米内的无缝管通体检测系统，该系统使用脉冲反射波、多通道、相控阵和刷漆技术以及螺旋管运输，以及用于高精度检测的旋转检测系统，该系统广泛用于换热器管子和核燃料元件。
GE Energy, Measurement & Control Solution是先进的传感器测量无损检测以及条件监控方面领先的创新者，能为广泛的行业，包括石油和天然气、发电、航空航天、交通运输以及医疗保健行业，提供精确度、生产率和安全性。其在25个国家有40多套设施，并且是GE Energy Services的一部分，能向客户提供更清洁、更智能、更有效率的解决方案。

GE Measurement & Control Solutions – UK
Fax: +44 1925 604096
Website: www.gesensinginspection.com

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Video inspection and internal weld scanning from a single source

OPTICAL Metrology Services Ltd (OMS) specialises in measuring equipment and consulting services for use within the pipe manufacturing and pipeline construction sectors, both onshore and offshore. A key focus for OMS is in the dimensional measurement of oil and gas pipes or other structures such as military gun barrels, processing industry tubes or manufactured cylindrical objects, where dimensions are critical. Hugh Davies, head of sales at OMS, discusses how video inspection and internal weld scanning tools are being used to check weld quality on pipes and other deepsea subsea oil and gas structures.
When inspecting the inside of pipelines and other subsea structures such as valve manifolds, video inspection can provide close-up views of features that are otherwise very difficult to access. Video inspection enables inspectors to assess a wide variety of features relating to welds, internal corrosion, internal structure, coatings and so on.

Whether onshore or offshore, inspectors need the best possible lighting and video technology, as well as a variety of methods of deploying the video tools inside different types of structures. Optical Metrology Services (OMS) Ltd has a wide range of advanced video inspection equipment. This includes the latest pan-and-

tilt camera technology, auto-focus zoom lenses, tractor systems and motorised cable reels.

For specialist weld inspection applications, OMS designs and manufactures unique digital imaging solutions, which can be deployed inside hot pipes during production welding. OMS also offers tool operators and qualified weld inspectors, who provide a full turnkey solution. Bespoke designed and manufactured systems can be delivered to solve the most challenging client inspection requirements.

For 'reeling trials', OMS offers video inspection services that can be combined with laser scanning of pipes to provide a combination of imaging and dimensional mapping of pipes or features in 3D.
OMS inspection reports provide comprehensive independent inspection records, which can include still images, video records, interpretation and analysis.

OMS clients can access the best technology and skilled, experienced operators to deliver the best possible video inspection in challenging pipeline engineering applications, whether in QC, standards compliance, or in special projects.

In oil and gas pipes, the quality of the root pass of a weld is critical to the structural integrity of the girth weld. Oil and gas companies therefore have stringent inspection requirements for checking welds. However, few if any tools currently exist on the market that can perform this kind of work. Welding of clad pipe is especially challenging and requires accurate measurement of the weld area in order to ensure zero defects and to avoid the delay and cost of a weld cut out later in the welding process.

Using its groundbreaking internal weld inspection system, in combination with video-based inspection systems, OMS offers customers comprehensive inspection services for checking the internal size and shape of girth welds on pipes that are destined for use in deepsea subsea oil and gas applications.

Видеоконтроль и осмотр внутренних швов одним прибором

Компания Optical Metrology Services Limited (OMS) специализируется в производстве измерительного оборудования и предоставлении консультационных услуг для трубной и трубопроводостроительной (на суше и в море) промышленности. Основным направлением деятельности компании OMS является измерение размеров нефте- и газопроводных труб и другой продукции, такой как пушечные стволы, трубы для обрабатывающей промышленности или металлические изделия цилиндрической формы, к которым предъявляются строгие требования в отношении их размеров. Хью Дейвис, руководитель отдела сбыта компании OMS, рассказал, как применяется видеоконтроль и осмотр внутренних швов для проверки качества швов в трубах и других конструкциях глубоководных нефте- и газопроводных систем.

При контроле внутренней поверхности трубопроводов и других конструкций подводных систем, таких как, например, коллекторы, видеоконтроль может обеспечивать рассмотрение тех мест, которые невозможно осмотреть другим способом ввиду их труднодоступности. Видеоконтроль позволяет инспекторам детально рассматривать многие детали, относящиеся к швам, внутренней коррозии, внутренней структуре, покрытиям и т.п.

Как на суше, так и в море контролерам требуются как можно лучшие средства освещения и видеоконтроля, а также различные методы ввода видеоприборов внутрь конструкций различных типов. Компания OMS располагает многочисленным современным оборудованием для видеоконтроля. Сюда входят современные камеры с панорамными головками, зум-объективы с автоматической фокусировкой, системы протяжки и моторизованные кабельные барабаны.
Для специальных задач контроля компания OMS разрабатывает и изготавливает уникальные цифровые системы формирования изображений, которые можно вводить в горячую трубу во время сварки. Она также предлагает услуги операторов оборудования и квалифицированных специалистов по контролю сварки. Разработанные и изготовленные на заказ системы могут помочь заказчикам выполнять наиболее строгие требования к контролю.

Компания OMS может предоставлять услуги контроля в сочетании с лазерным сканированием труб для получения комбинации изображения и размерного картирования труб или деталей поверхности в трехмерном виде.

Акты осмотра компании OMS содержат всестороннюю независимую информацию об осмотре, включая стоп-кадры, видеозаписи, интерпретацию и анализ изображений.
Заказчики компании OMS могут получать доступ к наилучшей технологии и услуги опытных операторов для выполнения на самом высоком уровне видеоосмотра ответственных трубопроводных систем в проектах контроля качества, проверки соответствия стандартам или в специальных проектах.

В нефте- и газопроводных трубах качество заварки корня шва является критичным для конструкционной целостности кольцевого шва. Поэтому нефтегазовые компании предъявляют строгие требования к контролю сварных швов. Однако в настоящее время на рынке почти отсутствуют приборы, которые могли бы выполнять такие задачи. Особенно трудной является сварка плакированных труб. Она требует точного измерения площади сварного шва, чтобы исключать образование дефектов и избегать затем потерь времени и средств на вырезку шва в процессе сварки.

Применяя свою революционную систему внутреннего осмотра швов в сочетании с системами видеоконтроля, компания OMS предлагает заказчикам свои услуги всестороннего контроля внутреннего размера и формы кольцевых швов в трубах глубоководных нефте- и газопроводных систем.

单一来源的视频检测和内部焊接扫描

OPTICAL Metrology Services Ltd (OMS)公司专营陆上和海上管道制造和管线施工领域测量设备和咨询服务。OMS主要关注的是石油和天然气管道尺寸测量或其他结构尺寸测量，如军用炮筒、加工工业管道或制造的圆柱形物体等尺寸要求高的地方。OMS 的销售主管Hugh Davies讨论视频检测和和内部焊缝扫描工具是怎样正被用来检测管道和其他深海水下石油和天然气结构焊缝质量的。
当检查管道内部和其他水下结构如阀组时，视频检查能提供特征特写镜头，否则是很难接近的。视频检查使检查员能够评价与焊缝内部腐蚀、内部结构、涂料等有关的各种特征。
不管是陆上或海上，检查员需要最好的照明和视频技术, 以及各种不同类型结构内部视频工具的各种展开方法。Optical Metrology Services (OMS) Ltd公司拥有很多先进的视频检测设备。这包括最新的云台摄像技术、自动对焦变焦镜头、牵引系统和机动电缆卷盘。

对于专业焊缝检查应用，OMS设计和制造独特的数码影像解决方案，可用于生产焊接过程中热管内部。OMS也提供工具操作员和合格的焊接检查员，提供全套的解决方案。定制设计和制造系统可用来解决最具挑战性的客户检查要求。
对于“卷取试验”，OMS提供视频检测服务，可与管道激光扫描结合，提供管道影像和尺寸图相结合或以3D为特征。

OMS检验包括提供全面独立的检验记录，可包括静态图像、视频记录、解释和分析。
OMS客户能使用最好的技术和经验丰富的熟练操作员，来交付具有挑战性的管道工程应用中最佳可能的视频检查，无论是在质量控制、遵循标准、或在特殊项目中。
在石油天然气管道中，焊缝根部焊道质量对环焊缝的结构完整性是至关重要的。石油和天然气公司因此有严格的焊缝检查要求。但是，如果目前市场极少有工具能执行这种工作。复合管焊接更具挑战，要求焊接区精确的测量，以确保零缺陷以及避免焊接过程中的延迟和随后的焊缝切除成本。
使用其开创性的内部焊接检验系统，结合视频检测系统，OMS能为客户提供全面的检查服务，检查管道内部尺寸和环焊缝形状，特定用于深海水下石油和天然气应用。

Optical Metrology Services Limited – UK
Email: info@omsmeasure.com
Website: www.omsmeasure.com

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Ultrasonic measurement

LASERLINC has updated its line of transducer fixtures, in order to keep up with demand for its Ultra-Gauge+™ ultrasonic wall measurement system. Three new fixtures include a clamshell-opening ring with adjustable transducers, a stainless steel ring with a fixed diameter, and a fixed-diameter ring made from Delrin for larger products.

Current ultrasonic measurement capabilities range from OD of 0.0508 to 228mm (0.002” to 8.9”) and wall thickness of 0.0127 to 25.4mm (0.0005” to 1”), using a variety of transducer fixtures and depending on the material involved.

LaserLinc manufacturers accurate and adaptable non-contact laser/ultrasonic measurement systems of OD, ID, wall thickness, eccentricity, and concentricity, lobing and more, for industries including wire, cable, fibre, tube and pipe.

Gauges operate via Total Vu™ software – a PC-based interface that gives sophisticated yet operator-friendly measurement/data processing. Total Vu gives provides the user with a picture of the products made, in real-time, with run and trend charts, graphical cross-section display and measurements in configurable, easy-to-read panels. Features include in-process tolerance checking, defect detection, SPC, feedback control, data logging, recipes and configurable reporting.
LaserLinc systems are available in a variety of configurations and sizes, with laser scan micrometers of one, two and three axes, plus the UltraGauge+ ultrasonic wall thickness measurement device. The scanners feature compact models and high measurement rates. Split transmitter/receiver models offer flexibility and precision for multi-strand applications, and the three-axis Triton series provides accurate ovality measurement, regardless of product orientation. With the UltraGauge+, wall thickness can be measured at up to eight positions, with over 2,000 measurements per second.

All LaserLinc micrometers and the UltraGauge+ have a four-year warranty, parts and labour. In virtually all cases where a micrometer needs warranty repair, a temporary replacement will be shipped to the user overnight.

Ультразвуковое измерение труб

Компания LaserLinc, Inc обновила свою линейку преобразователей для соответствия требованиям к своей ультразвуковой системе измерения толщины стенки труб UltraGauge+™. Три новых прибора – это грейферное кольцо с подбираемыми преобразователями, кольцо из нержавеющей стали постоянного диаметра и кольцо постоянного диаметра, изготовленное из материала Delrin, для изделий большего размера.

Сейчас можно выполнять ультразвуковое измерение труб с наружным диаметром от 0,0508 до 228 мм и толщиной стенки от 0,0127 до 25.4 мм, пользуясь различными преобразователями в зависимости от материала.

Компания LaserLinc производит точные и адаптируемые лазерные и ультразвуковые системы бесконтактного измерения наружного и внутреннего диаметра, толщины стенки, ексцентричности и концентричности и др. для производителей проволоки, кабеля, волокон и труб.
Приборы работают с программным обеспечением Total Vu™ - интерфейсом ПК, который обеспечивает совершенную и ориентированную на пользователя обработку данных измерения. Программа Total Vu дает пользователю представление об изделии в реальном времени с диаграммами прогонов и трендов, графическим отображением поперечного сечения и информации измерения в конфигурируемом и легким для чтения формате. Отличительными особенностями системы являются текущий контроль допусков, обнаружение дефектов, микропрограммное управление, управление с обратной связью, регистрация данных, выдача рекомендаций и конфигурируемое составление отчетов.

Системы компании LaserLinc могут поставляться в нескольких конфигурациях и нескольких размерах, с одно-, двух- и трехосными лазерными микрометрами и УЗ измерителем толщины стенки UltraGauge+. Приборы отличаются компактностью и высокой скоростью измерения. Раздельные модели преобразователя и приемника отличаются гибкостью и точностью при применении в многониточном режиме, а трехосная серия Triton обеспечивает точное измерение овальности независимо от ориентации изделия. С помощью прибора UltraGauge+ можно измерять толщину стенки в восьми точках со скоростью до 2000 замеров в секунду.

Микрметры компании LaserLinc и UltraGauge+ поставляются с четырехлетней гарантией на компоненты и сборку. Буквально во всех случаях, когда требуется гарантийный ремонт микрометра,

временная замена обеспечивается в течение суток.

超声波测量

为了跟上其UltraGauge+™超声波壁厚测量系统的需求，LASERLINC公司更新了传感器设备生产线。三个新设备包括一个带可调传感器的抓斗开口环，一个固定直径的不锈钢环以及一个来自Delrin的用于较大产品的固定直径环。
目前，超声波测量能力范围为外径0.0508到228毫米(0.002” 到8.9”)，壁厚0.0127 到25.4毫米(0.0005”到1”)，测量使用的是不同的传感器设备，测量能力取决于所涉及的材料。
LaserLinc公司制造准确且适应性强的非接触式激光/超声波测量系统，用于电线电缆、纤维和管道业外径、内径、壁厚、偏心度、同心度、凸角以及更多其他的测量。
测量仪通过Total Vu™软件运行——一个基于个人电脑接口的软件——带来高级用户友好型测量/数据处理。Total Vu为用户提供可配置的易读控制面板内的实时产品制造图、以及运行和趋势图表、图形化横截面显示和测量。功能包括进程中的偏差检查、缺陷检测、SPC、反馈控制、数据记录、方法和其他可配置报告。
LaserLinc系统有各种配置和大小，拥有一个激光扫描微米计，两轴和三轴，以及UltraGauge+超声波壁厚测量装置。扫描仪是小巧型的，测量速度高。分离发射/接收型可为多股应用提供灵活性和精确度，三轴Triton系列能提供精确的椭圆度测量，而不管产品方位如何。UltraGauge+使壁厚可以在八个位置测得，速度达到每秒2000多次测量。
所有LaserLinc微米计和UltraGauge+有4年的质保，部件和劳力。事实上在任何情况下，如果微米计需要质保维修，则临时的替代者会在前夜运到用户处。

LaserLinc, Inc – USA
Fax: +1 937 318 2445
Email: info@laserlinc.com
Website: www.laserlinc.com

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Better steels call for better testing

IMATEK Ltd is a UK-based manufacturer of materials testing equipment used primarily in the fields of impact testing and polymer melt rheology. The company’s machines are used around the world to test the properties of materials, components and assemblies, and within a wide range of industries including aerospace, polymer processing, automotive, academic research and steel production.

The use of higher grade steels in oil and gas pipeline construction is creating the need for a new generation of specialist impact testers. Imatek offers a range of drop weight tear testers (DWTT) for measuring the fracture characteristics of steel specimens according to API recommended practice 5L3, EN 10274 and ASTM-E 436. Steel grades of X120 and specimens of up to 50mm can be accommodated.

A major feature of the Imatek range is the instrumentation and analysis software that provides high quality information, both graphical and tabular, for the specimen failure. Whereas historically the DWTT test method has not required instrumentation, more recent research indicates that it is of benefit when testing the tougher x-steels. Instrumentation enables crack initiation and, most importantly, propagation energies for the specimen to be determined, which is considered a better measure of ‘in-use’ performance for these steels.

Imatek also offers an integrated high speed video option that greatly enhances understanding of the behaviour of a specimen as it undergoes impact.

Imatek’s integrated high speed video system uses its C3008 data acquisition system to combine signals recorded during a test event together with high speed video imagery, all under the control of the ImpAcqt software. Since the camera and the data acquisition share the same trigger, data points and images can be precisely correlated.

A video sequence provides qualitative information about the test event, and the software also allows quantitative information to be extracted.

Integrated high speed video offers an advantage in many application areas and is available as an option for any of the Imatek range of impact testers or in a stand-alone mode, making it a general purpose tool that can be utilised by other parts of a user's operation. The system is already proving useful in the testing of steel tensile specimens at high rate, enabling detailed analysis for the deformation of the specimen gauge length to be undertaken.

Лучшие стали требуют лучшего контроля

Компания Imatek Ltd – английский производитель оборудования для испытания материалов, применяемого в основном для ударных испытаний и реологии расплавов полимеров. Оборудование этой компании используется во всем мире для определения свойств материалов, деталей и узлов в ряде отраслей промышленности, например, в аэрокосмической, обрабатывающей, автомобильной промышленности, а также в научных исследованиях и в производстве стали.

Применение сталей высших сортов в строительстве нефте- и газопроводов вызывает потребность в специализированных машинах нового поколения для ударных испытаний. Компания предлагает несколько моделей машин для испытания на разрыв падающим грузом для определения прочностных характеристик стальных образцов в соответствии с руководящими указаниями API 5L3, EN 10274 и ASTM-E 436. Можно испытывать марки стали X120 и образцы размером до 50 мм. Главной особенностью машин Imatek является приборное программное обеспечение (ПО) и ПО для анализа, предоставляющее высококачественную информацию о разрушении образца как в графическом, так и в табличном виде. Исторически сложилось так, что метод испытания на разрыв падающим грузом не требовал оснащения приборами, но современные исследования показали преимущества наличия приборов, когда испытываются стали класса X. Приборы позволяют инициировать трещины, и что самое главное, определять энергию распространения трещины в образце, что считается лучшей мерой эксплуатационных свойств этих сталей.

Компания Imatek также предлагает интегрированную высокоскоростную видеосистему, дающую значительно лучшее представление о поведении образца при ударе.
Эта система, используя свою систему сбора данных C3008, объединяет сигналы, записанные при испытании, с высокоскоростной видеозаписью под управлением ПО ImpAcq. Так как камера и система сбора данных пользуются общим триггером, то точки данных и изображения могут точно коррелироваться.

Видеоряд дает качественную информацию об испытании, а ПО позволяет также извлекать количественную информацию.

Интегрированная высокоскоростная видеосистема может применяться во многих областях и может поставляться по отдельному заказу с любой машиной для ударных испытаний, либо отдельно, что позволяет применять её как устройство общего назначения при решении других задач пользователя. Эта система уже доказала свою полезность в испытании на растяжение стальных образцов при высоких скоростях, позволяя подробно анализировать деформацию расчетной длины образца.

更好的钢材需要更好的检测

IMATEK Ltd有限公司是一家总部设在英国的材料试验设备制造商，这些设备主要用于冲击试验和聚合物熔体流变性领域。公司的机器在全球被用于检测材料、零部件和组件的性能，涉及广泛的行业，包括航空航天、聚合物加工、汽车、学术研究和钢铁生产。

在石油和天然气管道施工中更高钢种的使用正在创造对新一代专业冲击试验机的需要。Imatek公司提供一系列落锤撕裂试验机(DWTT)，该机器按照API推荐规程5L3、以及EN 10274和ASTM-E 436标准来测量钢试件的断裂特性。50毫米内的X120级钢种和试件都能得到满足。
Imatek产品系列的一个主要特点是仪表装置和分析软件能以图解或表格方式为无效试件提供高质量信息。然而，以前，DWTT检测方法无需仪表装置，最新的研究成果表明在检测较硬的x-钢种时这是有益的。仪表装置能使裂纹萌生，而且最重要的是，试件的传播能量将被测定，这被认为是对这些钢材“在使用中”的性能最好的测量。

Imatek也提供一体化高速视频选项，大大增强了对试件在冲击下的表现的了解。

Imatek的一体化高速视频系统利用其C3008数据采集系统将测试过程中所记录的信号与高速视频图像结合起来，所有这些都是由ImpAcqt软件控制的。因摄像机和数据收集享用的是相同的触发器，从而数据点和图像可以较准确地相关联起来。

视频序列为检测事件提供定质信息，而且软件还允许定质信息被提取出来。
一体化高速视频为许多应用领域提供了一个优势而且可作为Imatek系列任何一个冲击试验机或在一个独立模式里的可选用项，使其成为能被用户其他操作部分利用的通用工具。该系统已证明其在高速检测钢拉伸试件中的有用性，能够对试件标规长度信息进行详细分析。
目前正受益于Imatek产品的钢铁工业领域客户包括Mittal Steel、Arcelor、Canadoil、Ruukki Steel、Posco Steel、Corus、Hyundai和Ural Steel。
更多信息请联系Imatek。

Imatek Ltd – UK
Fax: +44 1438 829054
Email: info@imatek.co.uk
Website: www.imatek.co.uk