The international magazine for the tube

and pipe industries

IUBE& PE TECHNOLOGY September 2010 | Vol 23 No 5 | US\$33



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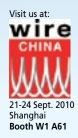
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No. of cameras: Measurable parameters:

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*Largest product depending on centering

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Hydrostatic Testers



6-10 Roll Straighteners

Bar Straighteners



EDITORIAL INDEX

3R software solutions 113
7th China (Beijing) Int'l Steel Tube Ind. Expo 31
Accurate Cutting Services Ltd 106
Aicon 3D Systems GmbH100
Ajax Tocco Magnethermic14
Amut SpA25
Applied Cooling Technology LLC57
ASMAG GmbH10
Bananas Design50
BeTec GmbH109
Bihar Tubes Ltd50
Bronkhorst UK51
Bronx/Taylor Wilson8
Burak Boru64
Carell Corporation18
CML USA Ercolina 110
Colombo Agostino48
Dhatec
Eagle Bending Machines60, 97
Euromaquina SA57
FELSS Burger GmbH32
FlowSmart25
Fontijne Grotnes BV41
GE Sensing & Inspection Technologies54
GYS56

	. –
Herbold Meckesheim GmbH	15
Herbold Meckesheim USA	15
Hess Industries, Inc	105
Hobas Engineering GmbH	40
Hoesch Schwerter Profile GmbH	63
Industrial Magnetics, Inc	20
InfoSight Corporation	63
Klaus Kuhn Edelstahlgießerei GmbH	60
Friedrich Kocks GmbH & Co KG	
Lessmann GmbH	46
Loke Engineering GmbH & Co KG	
Dan Maliniak	18
Manchester Tool & Die, Inc	13
McElroy	23
Metallizing Equipment Co Pvt Ltd	
Muraro SpA	48
Numerical Algorithms Group	49
Olympus NDT	6, 42
Omni-X CZ sro	20
Omni-X Inc	101
OP Srl	64, 102
ORT Italia SpA	49
Oto Mills SpA	44
PhoenixTM GmbH	34
PhoenixTM Ltd	34

Pixargus GmbH	38
Plastic Pipes Conference Association	26
ProMedia International	10
Proto-1 Manufacturing, LLC	99
Pure Technologies Ltd	35
Reika GmbH & Co KG	68
Robor (Pty) Ltd	22
Saint-Gobain PAM UK	36
sema Systemtechnik Sewing GmbH & Co K	G.66
Sikora AG	30
Singapore Exhibition Services	19
SMS Meer GmbH	10
Tauringroup	101
Technip	.7, 13
Tenova Core	14
Tenova SpA	12
The Association of Welding Distribution	32
The Lincoln Electric Company	58
Trumpf Inc	.6, 12
Unicorn Automation (NDT) Ltd	69
Unifit Fittings	64
Wafios AG	100
Wecotech AG	97
Zopf Bending Machines	106
Zumbach Electronic AG	65



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Alloy Butt Weld Fittings:

A/SA-234 WP-11: Class 1 & 2, WP-22 Class 1 & 3 * WP-91 * WP-5 * WP-9



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Katja Beyer, Head of Corporate Communications, SIKORA AG



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AROUND THE WORLD

Welcome to the latest issue of TPT magazine. This issue has features on two important shows in the tube and pipe manufacturing calendar – EuroBLECH 2010 and FABTECH 2010 – as well as an in-depth look at the latest bending and endforming machinery. The two shows are taking place on opposite sides of the Atlantic but members of the Tube & Pipe Technology team will be attending both. Please make sure you come and say hello. I will be as successful, and enjoyable, as my trip to Chicago last year. I hope the US is now starting to see more green shoots of recovery as there is a growing sense of optimism in Europe with most countries now experiencing strong growth – notably Germany, which is hosting EuroBLECH.

And please don't forget to send in your editorial for the next issue of Tube & Pipe Technology. The November issue will feature Tube Arabia 2010 (Dubai, United Arab Emirates), cutting, sawing and profiling as well as blasting, coating and galvanizing technology.

Rory McBride - Editor

Editorial Index2
INDUSTRY NEWS6
TECHNOLOGY UPDATE 40
GLOBAL MARKETPLACE 70
中文综合 135
Advertisers Index 148



FRONT COVER STORY

Randolph Tool Co, Inc offers the highest quality tube cut off blades and die jaws in the industry, manufactured to your specifications to best suit your production needs by true craftsmen with the best manufacturing procedures in the the industry as well as a reputation for exceeding expectations. Randolph Tool, which was established in 1968, deals direct to save you money. Fax a drawing of the blades, dies, jaws or repair parts for your tube mills that you require. You will receive a quote immediately and will find that the pricing is extremely competitive with a fast turn around time. When you receive the blades they will be flat within 0.002 and the surface of the blade will be extremely smooth, which will help the blade last longer. Randolph Tool also offers services such as resharpening of used blades and die jaws as well as precision machining and uses only top-grade tool steel to produce the best industrial knives and die jaws in the business. Visit www.randolphtool.com or email info@randolphtool.com

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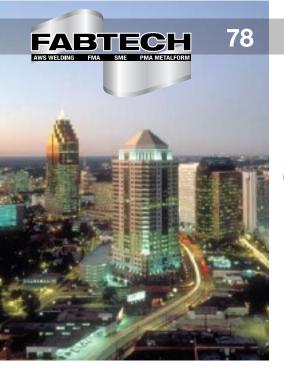
Tube & Pipe Technology magazine is available on subscription, or via membership of the International Tube Association – See www.itatube.org for more membership benefits



CONTENTS

Vol 23 No 5

SEPTEMBER/OCTOBER 2010



FABTECH 2010

FABTECH provides an environment that facilitates and enhances business relationships and inspires exceptional loyalty in the technical people and buyers and sellers who come together under its aegis, year after year. FABTECH 2010 at the Georgia World Congress Center (2-4 November) is again set to reward expectations – with 22,000 visitors coming to Atlanta for the world-class conference and concomitant exhibition



Machinery and Equipment for Bending & Endforming

These processes have reached such an advanced state of development that a bend in a tube no longer weakens it. In this section we present products and services intended to ensure that – whatever the material and the angle of the bend – the tubing coming out of the bender and the end former is as sound and strong as it was going in.



EuroBLECH 2010

EuroBLECH will, once again, be the central market place for everyone involved in sheet metal working. At the world's largest sheet metal working exhibition, some 1,400 exhibitors from 40 countries will present cutting edge technologies and sophisticated solutions. EuroBLECH is the first choice when it comes to sourcing the right machinery, systems, tools and materials.

142

A novel modular power supply system for induction heating applications

¹Cesano M, ¹Di Carlo F, ^{1,2}Dughiero F, ¹Griffero G, ¹Natale L ¹R&D Department, Power Electronics Division, SAET Group, Italy ²Department of Electrical Engineering, University of Padova, Italy

www.read-tpt.com



LaserLab teaches benefits of laser technology

WHERE does laser power come from? How can lasers be made even stronger – and why do we need them to be powerpacked in the first place? These are just a few of the questions answered at Trumpf's LaserLab, now on exhibit at the Connecticut Science Center in downtown Hartford, Connecticut, USA. Visitors to the LaserLab will learn all about lasers, including how the technology impacts everyday life.

This hands-on exhibit makes its North American debut at the Science Center to 4 September. The interactive exhibition was developed by Trumpf mechanical engineering students from the Stuttgart University of Cooperative Education in Germany.

"We are extremely pleased to bring the LaserLab to the United States to celebrate this, the 50th anniversary year of laser technology," said Rolf Biekert, president and CEO of Trumpf Inc. "The interactive stations in the exhibit will help make lasers interesting for everyone, but particularly for children. We hope the engaging manner in which lasers are presented in the LaserLab will encourage excitement and create interest in exploring career options in technology."

A highlight of the LaserLab is a foosball table where visitors can put their newlyacquired understanding of lasers to use. The laser foosball game works just like regular foosball. However, the ball is a laser beam that has to be directed into the goal with the help of adjustable mirrors.

Another popular station in the LaserLab



Trumpf's LaserLab gets a mention in New York's Times Square

requires a single person or a team to guide a laser beam through a labyrinth.

Trumpf Inc, which was established in the USA 41 years ago, recently introduced to the market its US-designed and built TruLaser 1030 – a laser cutting system that the company says opens new doors for manufacturers because of its compact size, simplicity in operation and affordability.

Trumpf Inc – USA Fax: +1 860 255 6424 Website: www.us.trumpf.com

Olympus NDT acquires Innov-X Systems

OLYMPUS NDT has announced its acquisition of Innov-X Systems Inc, a manufacturer of portable X-ray fluorescence (XRF) analytical instruments based in Woburn, Massachusetts, USA. Innov-X Systems instruments provide realtime, non-destructive material analysis in applications ranging from metal sorting, lead paint detection and alloy verification to analysis of oil, fluids and minerals.

With this acquisition Olympus NDT has taken a step towards its continuing commitment of becoming the leader in non-destructive testing (NDT) and related inspection technologies. The addition of X-ray fluorescence analytical instruments augments the company's existing portfolio of ultrasound, eddy current and remote visual instruments that include flaw detectors, thickness gauges, systems, videoscopes, scanners, probes and related accessories.

Innov-X Systems will be operated as a business division of Olympus NDT, retaining its current management team and employee base.

Olympus NDT CEO Toshihiko Okubo commented, "The decision to acquire Innov-X Systems was based on the complementary product portfolios of both companies. This is yet another significant step for Olympus in becoming the world leader in the manufacture and distribution of inspection devices that enhance safety, security, and productivity and that also contribute to society."

Innov-X Systems CEO Don Sackett said, "We are extremely honoured to be part of the Olympus organisation, which is so well respected throughout the world. Innov-X has newly introduced an X-ray fluorescence product platform that is both high performance and rugged and is a great fit with the non-destructive testing and remote visual inspection technologies of Olympus."

Olympus NDT - USA

Fax: +1 781 419 3980 Email: glenn.decker@olympusndt.com Website: www.olympus-ims.com

Mediterranean and North Seas contract sealed

TECHNIP has been awarded a lump sum engineering, procurement, installation and construction (EPIC) contract by Burullus Gas Company SAE for the West Delta Deep Marine (WDDM) Phase VIIIa development project. The contract value is in excess of US\$300mn. The project consists of the expansion of the WDDM facilities, located 95km offshore Egypt in the Mediterranean Sea.

Technip's scope covers the design, supply and installation of three production manifolds and three subsea distribution assemblies (SDAs); engineering, welding and installation of approximately 67km of rigid production flowlines; engineering, fabrication and installation of approximately 88km of umbilicals, 12km of flexible flowlines and three flexible jumpers; connection of the flowlines and umbilicals to the wellheads and subsea manifolds; and pre-commissioning of the entire system and support to the client for commissioning and start-up activities.

Technip's operating centre in Paris, France, will execute this contract with assistance from Genesis in London, UK, and the group's team in Cairo, Egypt. The umbilicals will be fabricated by Duco, Technip's subsidiary in Newcastle, UK, and the flexible pipes will be manufactured at the group's plant in Le Trait, France.

The offshore campaign is scheduled to commence in the second quarter of 2011.

Technip has also been awarded two significant contracts by BP, with a combined total value in the region of £100mn (€120 mn).

The first award, a three year diving repair and maintenance (R&M) frame agreement contract with two further one year options, covers all diving and R&M activities for BP's platforms, subsea fields and pipelines within the UK North Sea area. This award is effective immediately and represents the retention of a contract which Technip has held for the last five years.

The second BP contract is a major engineering and installation contract for the development of the Devenick field, located 234km north east of Aberdeen. It covers project management, engineering, fabrication, installation and commissioning of the 33.5km pipe-in-pipe production pipeline.

Technip – France Website: www.technip.com

Diary of Tube Events

2010)					
SEPTE	MBER					
21-24	Tube / wire China 2010 Shanghai, China Exhibition	→	Email: tube@mdc.com.cn Website: www.mdc.com.cn			
ОСТОВ	OCTOBER					
26-30	EuroBlech Hanover, Germany Exhibition	>	Email: info@euroblech.com Website: www.euroblech.com			
NOVEN	IBER					
2-4	Fabtech / AWS Welding Show Atlanta, USA Exhibition	→	Email: information@fmafabtech.com Website: www.fabtechexpo.com			
30-2 Dec	Valve World Expo Düsseldorf, Germany Conference & Exhibition	→	Website: www.valveworld.expo.com			
2011	1					
JANUA	NRY					
8-11	Tekno / Tube Arabia 2011 <i>Dubai, UAE</i> Exhibition	→	Email: alfajer@emirates.net.ae Website: www.tube.de			
MARCI	Н					
3-6	Boru 2011 <i>Istanbul, Turkey</i> Exhibition	→	Email: info@ihlasfuar.com Website: www.borufuari.com			
MAY						
23-26	Tube Russia 2011 <i>Moscow, Russia</i> Exhibition	→	Email: ryfischd@messe-duesseldorf.de Website: www.metallurgy-tube-russia.com			
SEPTE	MBER					
13-15	Tube Southeast Asia Bangkok, Thailand Exhibition	→	Website: www.tube-southeastasia.com			
19-24	EMO <i>Hanover, Germany</i> Exhibition	>	Website: www.emo-hannover.de			
OCTOE	BER					
4-6	Tubotech São Paulo, Brazil Exhibition	→	Email: cipa@cipanet.com.br Website: www.cipanet.com.br			
NOVE	IBER					
13-16	Fabtech Chicago, USA Exhibition	→	Email: information@fmafabtech.com Website: www.fabtechexpo.com			
2012						
MARCI	Н					
26-30	Tube / wire Düsseldorf 2012 Düsseldorf, Germany Exhibition	→	Email: infoservice@messe-duesseldorf.de Website: www.tube.de www.messe-duesseldorf.de			
OCTOBER						
29-31	Tube India <i>Mumbai, India</i> Exhibition	>	Email: dughl@md-india.com Website: www.tube.india.com			

Straightening installations for nuclear industry

BRONX/TAYLOR-WILSON has secured an order for two new CNC computercontrolled 10-roll tube straightening machines. The two machines are new Bronx 10.CR.5 and 10.CR.3 series cross-roll tube straightening installations complete with handling and automatic process sequencing.

The machines will be supplied to the customer as part of two new, fully automated finishing lines within the latest expansion to its tube production facility. The straightening machines and the finishing lines into which they are integrated are at the forefront of modern technology and automation, said to be the most modern of its type in any tube making facility.

The equipment will straighten and process Inconel tube with an outside diameter ranging from 12mm to 60mm, and wall thickness up to 8mm. Designed to accommodate a particularly broad range of tubes, Bronx/Taylor-Wilson's 10-roll design can straighten to the most stringent of tolerances at high speeds. The timescale for completion of the machine with complete function testing, installation and commissioning is scheduled for late 2010.

The customer is a leading producer of speciality tubular products made of stainless steel and nickel alloys exclusively for nuclear power stations using the pressurised water technology. This range of products covers various needs, often in small quantities, requiring the intervention of a wide variety of techniques. The products concerned are customised nickel alloy and stainless steel tubulars with particularly demanding specifications and a nuclear quality follow up.

Their main characteristics are a light wall thickness, operating conditions involving high pressure and temperature, and an expected life span of several decades.

The 10.CR.5 machine for this installation has a diameter range of 15 to 60mm with a maximum wall thickness of 8mm. The 10.CR.3 machine has a diameter range of 12 to 26mm and a maximum wall thickness of 3mm.

The Bronx/Taylor-Wilson 10-roll straightening machine incorporates the multiple bending moment feature. This gives greatly improved straightness due to the increased number of plastic bending cycles. From experience with the 10-roll machine's performance, it has been noted that there is considerable increase in the consistency of degree of straightness, particularly on the more badly bent and generally difficult materials. This is a function of the additional number of plastic cyclic deflections which occur. The leading and trailing ends of the tubes can be straightened more effectively,

due to the facility for additional pressure straightening.

The 10-roll machines have vertical adjustment on all top rolls and numbers 2, 3 and 4 bottom rolls. This allows the straightening machine to apply a more gentle deflection to the tube by deflecting or bending the material over three or four roll centre distances instead of two as on the 6-roll machine. This design results in the straightening operation having a minimum effect on the physical and mechanical properties of the material which is crucial when operating in the production of these products.

The straightening installation will be controlled by Bronx/Taylor-Wilson's patented 'COMPASS' Computer Aided Setting System which utilises 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 set up times for a size change are reduced to less than three minutes, while its data collection and storage is vital to the producer and enduser when processing such sensitive and critical components.

Bronx/Taylor Wilson – USA Fax: +1 330 244 1961 Email: sales@btwcorp.com Website: www.btwcorp.com





Interlinked drawing line for steel tubes

ASMAG, Austria, has finalised commissioning of a new manufacturing line for steel tubes at Wiederholt GmbH in Germany. The new line allows an increase of output and a significant improvement of product quality. With a tube diameter of up to 125mm and a maximum length of 12m, it represents the first interlinked production line of its kind in Germany.

After passing a hydraulic in-line pointing press the steel tubes are drawn on a 1,200kN two-fold draw bench with rack and pinion drive. The newly developed multiple pre-bench allows permanent availability of two different plug rod dimensions. A head and tail sawing facility cuts both ends of the drawn tube, and chips are removed by a newly designed integrated blow-off device.

With the 10 roll straightening machine RRM-pro 125/420/10, ASMAG realised

a benchmarking machine for tube straightening. The customer's straightness demands and even more challenging expectations could be exceeded. Tubes are run end to end before ultra sonic and eddy current testing, and separated afterwards again. A new multiple saw, consisting of four single saw units, allows automated positioning of each saw depending on specific requirements. After a final visual check the tubes are joined automatically in hexagonal shaped packages.

The essential benefits of the new line

are: material output could be increased significantly due to a high line speed, and prevention of not-straightened tube ends. A robust design and implementation of new ideas led to an increase of product quality. Special attention was focused upon environmental requirements, and new standards have been accomplished.

ASMAG GmbH – Austria Fax: +43 7616 8801 44 Email: sales@asmag.at Website: www.asmag.at



Shandong Nanshan places large SMS Meer order

SHANDONG Nanshan Aluminium Co, Ltd, Shandong, China, and SMS Meer, Germany, have signed a contract for the supply of a total of 14 light-metal extrusion presses.

Shandong Nanshan Aluminium Co is a manufacturerofextruded aluminium products and has consistently relied on extrusion technology from SMS Meer since 2004. With the 14 new machines, the customer will have a total of 28 modern Schloemann extrusion presses in operation.

The new light-metal extrusion presses cover the press force range from 11 to 150MN. The machines are used to produce standard structural profiles and, increasingly, seamless aluminium tubes, heavy industrial profiles and profiles for the transport and railways sector.

The 150MN extrusion press is already the second front-loading press from SMS Meer of this size to be supplied to the Chinese province of Shandong.

The SMS Meer front-loading extrusion presses offer advantages including high machine availability, large billet charge weights, safe loading procedure and short non-productive times with optimised process sequences. This results in a generally higher productivity compared with other machine concepts.

SMS Meer states that in recent years the front-loading presses have established themselves as the preferred press type on the world markets.

Commissioning is scheduled for the Christmas/New Year period 2011/2012.

SMS Meer GmbH – Germany Fax: +49 2161 350 667 Email: info@sms-meer.com Website: www.sms-meer.com

Kuwait Pipeline Technology Conference

THE Kuwait Pipeline Technology Conference & Exhibition, to be held at the Hilton Hotel, Kuwait, 6 & 7 October 2010, is a new international platform for products, systems and services relating to the transport of oil, gas and water.

The focus will be on the entire value added chain, from planning, construction and operation to maintenance and repair. The conference will provide participants with practical solutions for effective planning, design, construction, operation, corrosion, mitigation and maintenance strategies applied to state-of-the-art pipeline networks. The conference will also present detailed information and techniques needed to overcome pressing challenges in effective planning and management of pipeline systems.

The Pipeline Technology Conference combines all pipeline related topics, including: manufacturing materials and technologies; pipeline project management; design and construction; rehabilitation and maintenance; GIS/ database development; pipeline integrity management; pipeline automation and measurement; risk and reliability; protection, corrosion and monitoring systems; and standards and regulations.

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So whatever your pipe normalizing needs, you can turn to us for a solution. And since we're present around the world, that solution is probably closer than you think. Contact us today. There's a vast oil and gas pipe market out there. We'll help you get a share of it.



Trumpf celebrates 10 years working in Mexico

TRUMPF Mexico's employees will have something special to celebrate at their annual 'Grill Out' event this summer: Trumpf Mexico's 10th anniversary.

"Trumpf has been committed to the Mexican market for the past decade," said Rolf Biekert, president and CEO of Trumpf Inc. "Through our presence in Mexico, we have invested heavily in the country's economic development and its people. We look forward to continued support of our customers in this region for a very long time to come."

According to Trumpf Mexico's managing director, Jorge Areyzaga, Trumpf filed its registration to do business in Mexico on 6 June 2000, in order to better service an



existing customer in that market. Additional assignments soon came along, such as automotive projects, which meant that Trumpf had an important customer base in the Northern part of the country and also in Puebla, which is located east of Mexico City. All of this activity prompted the company to locate its operations in the German Center in Mexico City.

In the early days, Trumpf's operations in Mexico were limited to sales and service. Today, however, Trumpf Mexico serves as a major manufacturing hub for Trumpf Inc, and is located in a 64,000ft² facility in the Apodaca Technology Center in Monterrey. The sales, service, demonstration and production areas are all housed in this \$10mn advanced manufacturing facility, which opened in March 2007 and includes a 4,200ft² showroom.

State-of-the-art Trumpf equipment and manufacturing techniques are used to produce frames for Trumpf fabricating machines that are manufactured in North America. The company's TruLaser 5060 with a 6kW laser is used to cut frames for 2D laser-cutting machines, and some components are bent using a very large press brake, the TruBend Series 8000, which the company says has the distinction of being the largest machine of its type in Mexico in terms of both capabilities and size. The frames are then welded together, and are painted and packed for shipment to the United States for machining and final assembly.

Jorge Areyzaga said that while his team of employees will celebrate their achievements at the Grill Out event, they won't spend too much time reflecting on the past decade. "We are continually looking for ways to increase our own efficiency and in turn improve our service to our customers. We look forward to a bright future in Mexico."

Trumpf Inc – USA Fax: +1 860 255 6424 Website: www.us.trumpf.com



Tenova to supply Saudi Arabia

TENOVA TAKRAF has signed a contract for a pet coke handling, storage and shiploading system for the new Jubail Export refinery in Saudi Arabia. The customer, Gulf Consolidated Contractors (GCC), is to build most of the new refinery for Saudi Aramco Total Refining And Petrochemical Company (SATORP), while Tenova TAKRAF will supply the entire pet coke handling systems.

Tenova TAKRAF will be working in partnership with PHB Weserhutte, Spain,

and will be responsible for the design, supply and site delivery of a handling system consisting of a conveyor belt system plus one scraper in the refinery area; an overland conveyor covering a distance of 25km from the refinery to the port; and a system of conveyor belts plus two scrapers and one shiploader in the port area.

The system will be used to store, transport and load petroleum coke, a solid residue obtained from petroleum refinement processes.

Tenova SpA - Italy

Fax: +39 02 4693026 Email: tenova@tenovagroup.com Website: www.tenovagroup.com

Investigation into TSKJ Nigeria is completed

IN line with Technip's announcement in February 2010 of an exceptional 4th quarter 2009 charge relating to the TSKJ Nigeria joint venture, Technip has announced that it has reached final agreement with the US Department of Justice (DOJ) and Securities and Exchange Commission (SEC) to fully resolve all potential claims arising from Technip's participation in the TSKJ joint venture between 1994 and 2004.

Commenting on the global settlement, Technip chairman and CEO Thierry Pilenko said, "The final agreement with the US authorities, completely in line with the road map that we laid out in February, puts this legacy story behind us and enables us to focus on continuing to develop Technip's business. We stand by Technip's commitment to carrying out its business activities ethically and according to both the spirit and letter of the law worldwide. The board of directors of Technip and its management are strongly committed to the continued enhancement of our internal compliance policies and processes."

Technip agreed to pay US\$240mn to the DOJ in eight equal instalments of \$30mn over the next two years. Technip will retain a French national, approved by the Department of Justice, to serve as an independent corporate monitor, who will be chiefly responsible for reviewing Technip's compliance initiatives and recommending improvements.

Technip agreed with the SEC to the entry of a final judgment that permanently enjoins Technip from violating the anti-bribery, books and records, and internal control provisions of the United States Foreign Corrupt Practices Act. The consent judgment fully resolves a civil complaint to be filed by the SEC, to which Technip neither admits nor denies liability. Technip also agreed to pay to the SEC US\$98mn in disgorgement, relating to the TSKJ joint venture.

Technip – France Website: www.technip.com

Re-engineered business model for tool and die firm

MANCHESTER Tool & Die Inc has re-engineered its business model, including machining processes, purchasing procedures and manufacturing and assembly operations. These changes have led to reductions in lead times and in cost reductions for the customer for both machines and tooling.

Machine components have been upgraded, including MTD's new programmable HMI (human machine interface) controls, which are more labour and user-friendly, flexible and include diagnostics for machine maintenance. Many machine options that were formerly optional are now standard.

The company has also started purchasing and building components in bulk for stock to lower cost and reduce lead times. MTD has also invested in several new machines to help streamline the manufacturing process.

Manchester Tool & Die, Inc – USA Fax: +1 260 982 4575 Email: testeffen@manchestertoolanddie.com Website: www.manchestertoolanddie.com



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 - ✓ QUALITY MANUALS AND PROCEDURES
 - TRAINING FOR PRODUCTION AND QUALITY MANAGERS
 - ✓ EVALUATION OF COMPANY ASSETS (INDUSTRIAL / INTANGIBLE)
 - ✓ EVALUATION OF THE ECONOMIC VALUE OF COMPANIES / BUSINESS UNITS

Ajax Tocco awarded induction heating contract

BAOJI Petroleum Steel Pipe Co Ltd (BSG) has selected the Shanghai, China division of Ajax Tocco Magnethermic as contractor for the design and supply of an induction furnace for in-line pipe heating prior to stretch reduction mill. The mother tube is formed in an ERW welding mill. The furnace will be installed at Baoji Petroleum Steel Pipe, Baoji City, Shaanxi Province, China. The innovative 18MW, 60MTPH furnace system will uniformly heat carbon steel ERW pipe from ambient to stretch reducing temperature. The system includes multiple inverters, solenoid coils, roll conveyors with advanced automation and controls. Start-up is scheduled for the first quarter of 2011.

Ajax Tocco Magnethermic is a steel industry leader for the design and supply of

industrial furnaces and related services. The company provides a wide range of heating furnaces and ovens, melting furnaces, and services for the metals industry.

Ajax Tocco Magnethermic

– USA Fax: +1 330 372 8608 Email: info@ajaxtocco.com Website: www.ajaxtocco.com

Contract to revamp EAF at lvaco rolling mills

TENOVA Core designs and supplies reheating, heat treating, speciality and carbon processing furnaces, as well as melt shop equipment, technical services and automation systems. The company has been contracted to revamp the 75-ton EAF at Ivaco's steelmaking facility in L'Orignal, Ontario, Canada.

The project features a new upper shell

and new lower shell which will be designed to increase the actual scrap charging volume and optimise the positioning of the existing burners and chemical injection system. The new shell structures will also be designed to fit the existing EAF tilt platform.

The shell structures will be fabricated at the Tenova fabrication facility. An upgraded water cooled piping and hose system is also part of the EAF revamp project. Installation is due to take place during a future planned maintenance outage at the factory.

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Herbold to present at K 2010

MACHINE and plant manufacturer Herbold Meckesheim GmbH will present new developments for size-reducing and recycling plastic waste at the K 2010 trade show. The company will be found at Hall 9 Stand 9B 42 at the event, which takes place from 27 October to 3 November.

Herbold's range of granulators has been enlarged by the new granulators of the HB series, which will be presented for the first time at K 2010. With these granulators it is possible to size reduce whole bales of film, bulk injection moulding and blow moulding parts and bales of foamed plastics, etc in one single step to the required granule size for subsequent further treatment. The grinding chamber is directly linked to a feed hopper, and with the help of a PLCcontrolled ram the material is forwarded to the rotor. For many materials a two-step size reduction consisting of a shredder and a granulator will no longer be necessary.

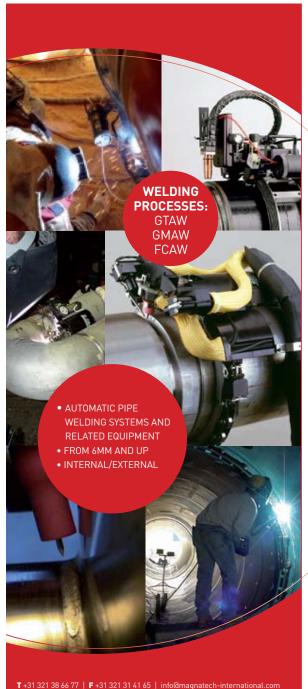
Another new development is the Herbold wet shredder type HGM. This armour-plated size-reduction unit has been developed for highly contaminated plastic waste, such as agricultural film. Using water right from the first processing step for the size reduction of highly contaminated plastic waste will reduce the well-known wear and tear problem and will considerably increase the efficiency of a wash line for agricultural film.

In addition to this, the company will focus on components and complete lines for recycling mixed and contaminated plastic waste. In this field, Herbold can provide modules, especially and individually put together according to the customer's needs. Everything from a simple wet granulator, eg for bottle crates, to a complete custom-made washing line integrating a hot washing step can be put together according to the material, the degree of contamination and the required throughput performance, or an existing line can be optimised or completed.

The plastcompactor is not only used for compacting films, fibres and foams for the production of agglomerates with excellent flow properties, but it is also an efficient final component of a washing line for drying thin and stretch film, since it is a more energy-saving procedure than thermal procedures and procedures in batches. The optimised feeding device ensures efficiency, even in the case of extremely wet materials or materials with an extremely low bulk density. Herbold Meckesheim GmbH – Germany Fax: +49 6226 932 495 Email: herbold@herbold.com Website: www.herbold.com

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Carell Corporation and Eagle Bending expand services

CARELL Corporation and Eagle Bending Machines have announced the promotion of Jeremiah Weekley to director of sales. The companies state that Mr Weekley's six-year personal commitment to customer relations and support has earned him the respect of customers, distributors and fellow employees.

With Mr Weekley's dedication and leadership, Carell Corporation and Eagle Bending Machines will continue to enhance

all aspects of their sales, service and parts departments. The primary focus is to support customers and distributors with new training seminars and certification classes, as well as introducing innovative enhancements in sales and service departments.

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



Jeremiah Weekley

Seminars and improvements on tube mills

DAN Maliniak, an engineering consultant with over 30 years of experience and knowledge in tube processing, provides educational seminars to sharpen tube manufacturers' skilled operators and leading foremen, on ERW mills.

Mr Maliniak helps companies solve processing problems and makes improvements on mills and tooling design, which can be of benefit to them. In the last 12 years, as consultant engineer, he has provided seminars and consultation to companies worldwide. Lectures of the seminar are held after shift working time at the company's lecture room.

Subjects of the lectures include: theory of pipe processing 'from strip to pipe'; sections of the tube mill; surface marks on tubes and rolls design; high frequency welding theory and quality of the seam; tube mill setup and strip threading; check rolls for wear and rolls report.

Dan Maliniak

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MTA Vietnam visited by nearly 7,000 people

MTA Vietnam 2010 drew to a close on 9 July after four days at the Saigon Exhibition and Convention Center (SECC) in Ho Chi Minh City.

Some 6,907 trade visitors attended the event to view the latest technologies showcased by 342 exhibitors from 23 countries and regions, including 11 international group pavilions from Germany, Italy, Japan, Korea, Singapore, Taiwan, Thailand and the United Kingdom.

This year's show saw many quality visitors who were keen to use the show as a sourcing platform to view a wide-ranging showcase of the latest quality machine tools and solutions, and network with hundreds of relevant potential business partners.

"This is my first visit to MTA Vietnam in Ho Chi Minh City," commented Mr Dinh Hoang Lien, director of Yen Tho Mechanical Co in Hanoi. "I am here to network and gather new contacts as my company has plans to bring the business outside of Vietnam in the future.

"I am also here to source for high quality equipment, in particular the industry latest pressing machines and new technologies. I am very pleased with what I have seen at the show and I will most certainly return to MTA Vietnam next year."

About 70 group delegations from Vietnamese enterprises attended MTA Vietnam 2010 to check out the latest machine tools and view product demonstrations from leading Vietnamese and overseas manufacturing players.

"Our company specialises in structural steel, and we deal in aluminium, steel, and stainless steel for the manufacturing of tools," said Mr Shinsuke Suzuki, president of Suzuki Special Steel Co Ltd, Japan.

"Suzuki Special Steel has a variety of high quality, customised processing and cutting machines, and I am very happy to have met my keen, VIP customers from KK Kousei, Toyota Motor, MK Innova and Muzuno Bankin at the MTA Vietnam 2010 show."

Edward Yuen, general manager, Trumpf Pte Ltd, Singapore, commented, "We sold our TruBend 7036 on just the second day of the show so we're very happy with the quality of the visitors this year. We're also in negotiations for the TruLaser 1030, which we'll confirm in about a month. We've made reservations to be back in the show in 2011."

MTA Vietnam was first launched in Ho Chi Minh City in 2005, and has since grown to become Vietnam's most comprehensive manufacturing solutions trade event, featuring at least 80 per cent overseas exhibitors in all its editions. MTA Vietnam is organised by Singapore Exhibition Services Pte Ltd (SES) and coorganised by VCCI Exhibition Service Co Ltd (VCCI).

The event will return to Ho Chi Minh City in 2011 for its eighth edition, from 5 to 8 July.

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Certification of management systems at Omni-X CZ

IN order to be able to consistently provide products and services that meet the requirements of its customers, Omni-X decided to create its own quality management system, shortly after the establishment of the company. With further developments and growth of the company since that point, the system has gradually been modified and improved to suit current needs.

The company has used its own specialised IDVS software, which takes into account the company's specific needs to support quality management, since the year 2005. The system has allowed the company to get feedback and analyse quality, and subsequently respond to possible non-compliance and eliminate deficiencies.

Omni-X CZ is also actively involved in environmental protection. In 2007/2008

it decided to introduce an environmental management system, whose primary task is to reduce the risk of accidents affecting the environment and protect workers' health.

This year has seen the company introduce two new management systems, successfully certified by the independent certification body TÜV SÜD. From June 2010, the company is the proud holder of ISO 9001:2009 and ISO 14001:2005 certificates in the field of 'Design and manufacture of tools for cold metal forming'.

Thanks to cooperation with a leading company in the chemical industry, Omni-X can now offer a new lubricant, Draw-Lube, for use on any tube bending application. Draw-Lube can be applied to any mandrel or wiper die in order to extend its working life.

The combination of this product with Omni-X Black Chrome is significant, as during tests the company discovered the Black Chrome mandrels lubricated with Draw-Lube lasted three times longer than TSC mandrels lubricated with a general lubricant.

Omni-X CZ sro – Czech Republic Fax: +420 548 212 804 Email: sales@omni-x.cz Website: www.omni-x.cz

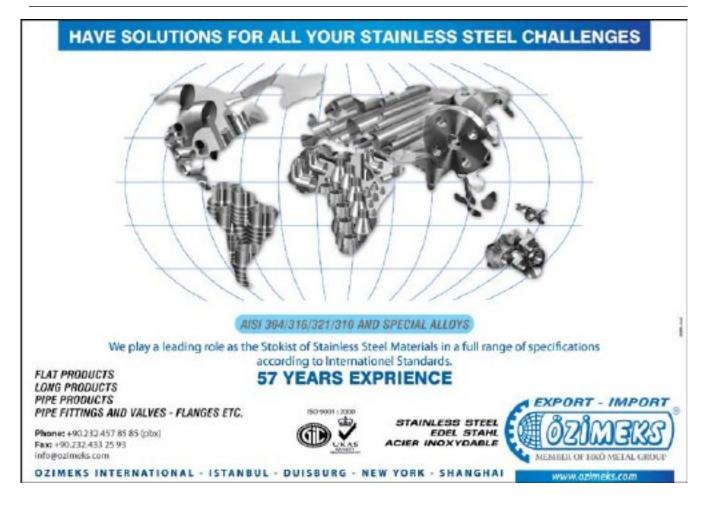
Magnetic catalogue

INDUSTRIAL Magnetics, Inc has published a new 28-page full-colour catalogue titled 'Magnets for Material Handling', which includes over 30 new magnetic products and tools for increasing the speed, efficiency and safety of material handling operations involving metal.

Highlights in the new catalogue include an expanded Lift Magnet section featuring the new BasicLift™ and VersaLift™ magnets, an Inspection Mirror section, which includes a mirror used for under vehicle inspections, and a Welding Magnet section, which features the new Mag-Pry for levelling two steel surfaces prying to welding.

In the Hand & Pocket Tools section are the 12 magnetic tools that now carry a National Stock Number.

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Eureka project completed in record time thanks to new Robor Hybrid Structure

A NEW lightweight Robor Hybrid Structure, introduced by the steel tube and pipe manufacturer, accounted for the remarkably successful fabrication and erection of the structural steel of a Eureka DIY 11,800m² factory in Stormill, Gauteng, South Africa.

Robor – working in conjunction with main contractor Renico Construction, and Entity Architects and Engineering – erected the structure in just three months. With a footprint of 148.4m x 79.5m x 8.8m high eaves and a total structural steel weight of 147.8t, the Eureka factory illustrates the power of the Hybrid Structure's unique combination of materials.

The new structure presents the opportunity for up to 40% savings on mass. Robor worked in consultation with Entity Engineering in developing the successful product as an alternative to the traditional structural steel systems. Traditional engineering designs vary from 15kg/m² to 30kg/m² and are often restricted by limits on the transportable length of steel sections, an ever-diminishing complement



Using Robor Hybrid Structure, an 11,800m² factory was erected in just three months

of qualified boilermakers and welders, high erection costs and lack of financing.

The Robor Hybrid Structure offers a solution to these challenges through the combination of Robor-manufactured



structural tubing with high-strength, lightweight galvanised steel. The new design method and technology have reduced mass per square metre from 22kg/m² to as little as 12.5kg/m².

The cold formed section and structural tubes were chosen carefully to optimise the design and exploit the inherent benefits of each section. Pieter Dorland of Eureka DIY was impressed with Robor's new offering: "The light steel design and construction have not only enabled us to save costs on the steelwork, but the ease of fabrication and erection has facilitated the project's completion within very tight deadlines, despite the adverse weather conditions in the beginning of 2010."

One of the greatest advantages of the system is that the rolling and fabrication can be done on-site without the need for boilermakers and welders. Long lengths can be rolled on-site, minimising the transport costs and the number of joints in the structure, while corrosion protection costs can be reduced as half the structure is made from pre-galvanised steel, as a result of which no further corrosion protection may be required, even in some coastal environments. Fabrication using local labour delivers further cost savings, as do the lower maintenance requirements.

Robor (Pty) Ltd – South Africa Fax: +27 11 392 4435 Email: headoffice@robor.co.za Website: www.robor.co.za

McCalc application quickly calculates fusion pressure

PIPE fusion experts McElroy recently introduced a pipe fusion focused application for iPhone, iPad and iPod Touch. The McCalc Fusion Pressure Calculator is a free application that helps a fusion machine operator find the correct fusion pressure calculations for a job.

To properly heat-fuse polyethylene pipe, fusion pressure must be calculated in accordance to the pipe manufacturer's recommended interfacial pressure. When using the McCalc Fusion Pressure Calculator application, the operator selects or keys in the pipe size, pressure requirements and the fusion machine to discover the recommended theoretical gauge pressure.

"We've always felt that the best way to further the pipe fusion industry is to get easy-to-use tools in the hands of pipeliners," said Chip McElroy, president of McElroy. "The McCalc Fusion Pressure Calculator application isn't the only tool for calculating fusion pressure that we've produced. On our website, we offer PDA software for download, the opportunity to order a slide rule calculator for use in the field, a web-based McCalc version and a tutorial on learning to calculate fusion pressure manually."

The McCalc Fusion Pressure Calculator application is simple to use. After downloading McCalc through the iTunes Store, open the application and choose the machine and the machine's total effective piston area (TEPA). Next, choose the pipe size, wall thickness, interfacial pressure and drag pressure. Once all the parameters of the fusion are set, the 'calculate fusion pressure' button is selected and the calculation's answer displayed.

McElroy – USA Fax: +1 918 831 9285 Email: fusion@mcelroy.com Website: www.mcelroy.com



McElroy's McCalc app, running on the new iPhone 4







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Amut supplies large pipe extruder in Vietnam

ITALIAN plastics processing machinery manufacturer Amut has been recently chosen by a Vietnamese company – which is a leader in the production of PE and PVC pipes – as the supplier of a complete plant that will be manufacturing big PE100 pipes.

The line will be installed in the Dong Nai province in the next weeks and the pipes will be used to build a new water distribution system in the region of the Mekong Delta.

For the project, Amut has designed a brand new compact extrusion head with flow distribution on 16 spirals.

The extruder matched to this head is the new EA130 HP (high torque) with a 40:1 L/D ratio.

The machine achieves outputs up to 1,500kg/h referred to a 1,000mm pipe. Furthermore, to prevent wear, the extruder is fitted with lined barrel and a nickel alloy-coated screw.

The new plant includes two vacuum troughs. The first one is 10m long and enables, by means of a hydraulic cylinder, to separate the first stage from the second in order to ease the starting procedures and to insert the ultrasound thickness measuring system. The second trough is 6m long and is single-stage.

The total cooling length is 34m, necessary for the production of pipes according to the pressure regulations PN6 and PN8.

There is an 8 caterpillar haul-off unit which has a pulling force of up to 9,000N, while a cutting unit with a rotary blade allows HDPE pipes to be cut with thicknesses of up to 60.5mm.

Amut SpA – Italy Fax: +39 0321474200 Email: amut@amut.it Website: www.amut.it

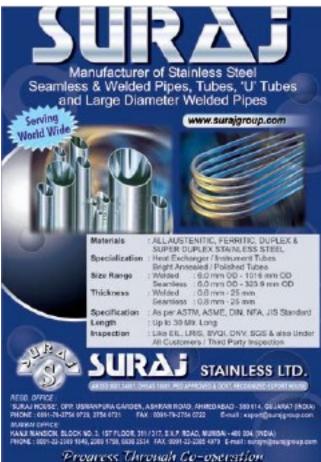
Flow Smart acquires business

FLOW Smart, Inc, specialists in high-purity polymer solutions, has announced its purchase of the wire- and fabric-reinforced hose business from Elkton, Maryland-based Gore PharmBio Products, a division of WL Gore and Associates.

The transition, which is set to occur over the next few months, will see Flow Smart taking over all of the production and sales activities for the wire- and fabric-reinforced hose products. The sale agreement includes the acquisition of Gore PharmBio's existing production equipment for the hoses, as well as the group's current inventory and other peripherals.

FlowSmart – USA Email: solutions@flowsmartinc.com Website: www.flowsmartinc.com





Plastic Pipes XV Conference

THE Plastic Pipes conference has been running continuously for over 30 years, and is held every two years in a new destination.

PPXV is organised by the Plastic Pipes Conference Association, which is made up of the Plastics Pipe Institute (PPI), PVC4Pipes and PPE100+.

Largely a European based conference for much of its existence, the Plastic Pipes Conference spread its wings for the first time and travelled to North America in 2006 for its first-ever US debut. Building on its North America success, PPCA brought PPXIV back to Europe to Budapest, Hungary in Eastern Europe for one of its most highly attended conferences to date in the autumn of 2008.

This year the event returned to North America, and PPCA felt that Vancouver was the ideal location for PPXV 2010. The organisers also anticipated that greater than ever numbers of Asian and Pacific based attendees, not to mention more West Coast US visitors, would be at the show. PPXV was a full three day conference held 20-22 September, 2010 at the Westin Bayshore hotel next to Stanley Park. Over 500 delegates representing 45 countries attended the event. Sessions were held in a concurrent session format giving attendees a choice of topics. Over 100 speakers presented on topics ranging from energy to irrigation.

Vancouver offered a picturesque backdrop to the industry's premiere plastic pipes event. Brought to a worldwide audience earlier in the year with the 2010 Winter Olympics, the organisers said that Vancouver was a great destination for businesses to attend.

Technical information was not the only resource on offer: communication will also be a valuable medium. Zoran Davidovski, vice president marketing of pipelife and chairman of the organising committee comments: "The conference is always an ideal meeting place for delegates and the latest ideas from utility companies, technical and certification institutes, plastic pipe companies, equipment manufacturers, compound makers and other suppliers."

Plastic Pipes Conference Association Website: www.ppxiv.com







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Phamitech is a consolidated supplier backed by the best manufacturers of their sectors in China. Choosing phamitech means obtaining immediate access to highly trained technical personnel and high level facilities, reliable information, and unparalleled services, all of which are available at an extremely competitive quality/price ratio throughout the world.

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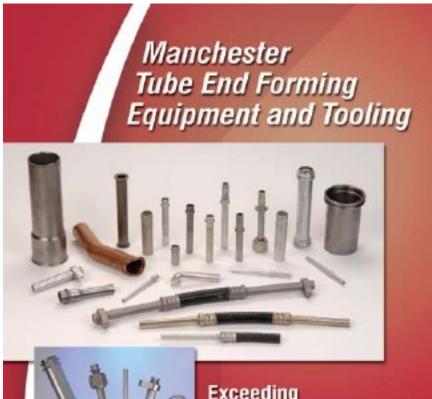
Phamitech machines are one of the most cost effective tube manufacturing equipment available in the world. Our products are working in more than 40 other countries besides China, such as USA, Mexico, Brazil, Venezuela, Ecuador, Korea, Turkey, India, UAE, Malaysia, Indonesia, Iran, Uzbekistan, Kazakhstan, Vietnam, Cambodia, Thailand, Syria, Jordan, Pakistan, Kuwait, Iraq, Nigeria, Egypt, Sudan, Ethiopia, Kenya, Tunis, South Africa, Ukraine, Russia, Belarus, Italy, Belgium, Macedonia, Greece, and so on.

Phamitech Int'l Company Ltd.

ADD:B503 New Millennium Plaza, 72 Xisanhuan Beilu, Beijing 100048, China Tel: +86 10 68730450, Fax: +86 10 68470948 Email: sales@Phamitech.com Website: www.Phamitech.com

German equipment for new Chinese tube plant

FRIEDRICH KOCKS GmbH & Co KG, Germany, has received an order to supply a stretch reducing block (SRB) and a rotating hot saw (RHS), which are the core of a new continuous production plant. The order was placed by China National Petroleum Corporation (CNPC) within the frame of the new construction of a welding tube plant at its subsidiary Baoji Petroleum Steel Pipe Co, Ltd (BSG), in Baoji, China. Baoji Petroleum Steel Pipe was originally founded in 1958, and was the first Chinese manufacturer of tubes using the submerged arc welding method. The company now produces 1.25mn tons of steel tubes per year in several works. Its new welding tube plant has been designed to allow continuous welding and stretch reducing in one step, ie the tube is in the welding line and in the stretch reducing block at the same time.



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After completion, the new plant will produce up to 300,000t/a of high-quality welded tubes. The range of products will include tubes within a diameter range of 60.3 to 177.8mm, with wall thicknesses of 4.83 to 13.72mm, according to international standards for applications in the oil and gas industry.

The 3-roll stretch reducing block in 'Star Drive' design, which will be used for the first time in a tube welding plant, will roll all finished sizes out of only one mother size of 193.7mm diameter. The SRB will be designed for the use of up to 24 non-adjustable and adjustable stands with a nominal roll diameter of 360mm. The last three stands used in the block are adjustable finishing stands; the other stands are non-adjustable reducing stands. The quick changing system for the stands and the roll shop with quick roll changing reduce the required quantity of changing stands, for optimum production.

The RHS 1000 rotating hot saw, which will be installed between the SRB and the cooling bed, allows the production of different tube lengths with tight length tolerances. Complicated batch conveyors and saws behind the cooling bed can be omitted, reducing investment and maintenance costs.

The scope of supply also includes roll shop equipment, electrical equipment, automation systems, and basic engineering for local production (obligatory in China), such as gratings, roller conveyors, ejector and cooling bed. Supervision of assembly and commissioning, training of operators, and the transmission of process know-how are also Kocks' responsibility.

Commissioning of the new tube mill is planned for the second half of 2011.

Friedrich Kocks GmbH & Co KG – Germany Website: www.kocks.de



мΙр

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Foundation stone for the future

IN the course of a ceremony at its headquarters in Bremen on 4 June, Sikora laid the foundation for the construction of its new technology centre. This represents a commitment to the company's continued expansion as seen over the past years.

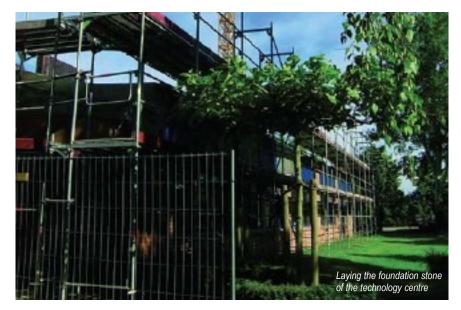
Harald Sikora, chairman of Sikora AG, Harry Prunk, the company's CEO, and Ronald Schween, technical site manager of construction company Züblin AG, placed the corner stone for the extension on the Sikora premises.

"The extension of the technology centre is our reply to the positive business development in the last years. Thanks to the consequent investment in research and development and our strategic alignment in growth markets, we have mastered the crisis well," said Mr Sikora during the ceremony. "Despite the economic challenges we have launched several new products.

"For the upcoming years as well a positive business development and further

increasing turnovers is expected. With the expansion of our technology centre by three levels we create more space for creative ideas and innovations in order to be first in the market."

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





International steel tube industry exhibition

THE 7th China (Beijing) International Steel Tube Industry Expo will take place 8-10 November 2010, at the China International Exhibition Center, Beijing.

The exhibition, which was established six years ago, attracts influential experts, purchasers and decision makers from over 20 countries and regions. In order to reach the requirements of sustainable development strategy proposed by the state and to promote the steel pipe industry, the Beijing International Steel Tube Exhibition has been playing a positive role in promoting the development of petroleum, petrochemical, shipbuilding, construction, automotive, electrical, hydraulic and mechanical industries.

The scope of the exhibition includes:

Steel tube products: large-diameter pipeline, gas pipeline, seamless steel tube (square, rectangular, circular stainless steel tube), cone-shaped seamless steel tube, profiled seamless steel tube, and many others.

Stainless steel welding pipe units, cold-formed series of welded pipe forming units, HF welded pipe units, hot dip galvanising lines, shearing welders, spiral welded pipe mills and large-calibre LSAW units.

Seamless steel tube units: steel pipe straightening machines, punchers, two roll cold-rolling units, cold-drawing machines, three-roll units, five roll cold-rolling units, periodic rolling units, and automatic rolling units.

Seamless tubes, pipe joints, and forging tube system, casting tube, filter tube, non-metallic materials, all kinds of valves, flanges and valves.

Ancillary equipment: auxiliary materials of steel pipe, infrared thermometers, printing marking machines, cleaning equipment and pipeline inspection technology.

During the exhibition the organising committee will arrange a series of symposiums for technical and commercial presentation and discussion.

Ms Shi, secretary office of the organising committee Fax: +86 10 88680811 Email: sy1768@163.com



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STANDARD:

ASME : ANSI B16.9, ANSI B16.28, MSS-SP-75 DIN : DIN2605, DIN2615, DIN2616, DIN2617, DIN28011 SGP : JISB2313 EN : EN10253-1, EN10253-2

MATERIALS:

ASME: A234 WPB, A234 WP1, A234 WP5, A234 WP9, A234 WP11, A234 WP12, A234 WP22, WP91, WP92, A420, WPHY42, WPHY52, WPHY60, WPHY65, WPHY70, WP304, WP304L, WP304H, WP316, WP316L, WP321, WP347, WP347H DIH: ST37.0, ST35.8, ST45.8, S235JR, P235GH, P265GH, 10CRMO910, 15CRMO, 12CR1MOV JIS: JIS G3454 STPG370 STPG410









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Machinery solves toughest bending challenges

TUBE and pipe bending and end-forming machinery expert FELSS Burger GmbH, Germany, has delivered additional CBC-12 and CBC-22 NC bending machines, fulfilling increasing capacity demand at customers in China and the USA. The systems are to produce high precision bent tubes for fuel injection and climate application. Typical dimensions are steel and stainless steel up to OD12x1.5mm and aluminium up to OD22x1.5mm.

The FELSS Burger turnkey solutions have up to seven NC controlled axes and are equipped with additional feeding systems as well as unloading stations. All processes are precisely controlled, and run with little operator attention beside loading and unloading, allowing cost effective, multi-machine operation. The CBC features solutions for all bending challenges, such as precision, left/right bending, multi radius, mark free, roll- and draw bending.

The systems are controlled via the human machine interface SPOB that uniquely allows all FELSS Burger machines to control with an identical and easy to handle logic. In

case of trouble, tele-diagnosis via internet allows 365 days a year, 24 hour direct access by experts. Software updates, new programs, new products and add-ons are also handled this way, and service stations with spares and tools in China, Japan and the US are in place.

New bending operations are programmed parallel to the production. To shorten change over times the CBC-12 and CBC-20 connect to all common measurement systems, such as Faro, Ikon or TubeInspect.

Both customers added their machines

to FELSS Burger MEC-4 end-forming units, four step units to precisely form the connectorising end-forms. Additionally, in case of dynamically changing pressures in a tube such as diesel-injection lines, autofrettage unit FA02-83 is added to significantly increase fatigue strength of a tube.

FELSS Burger GmbH – Germany Fax: +49 8361 92 06 10 Email: info@felss-burger.com Website: www.felss-burger.com



For Pape beader ber Pape beader ber Pape beader ber Pape beader ber Berning Press ber Berning ber Bern

Name change reflects a changing welding equipment market

AWD, UK, has been the voice of the welding distribution industry for over 35 years and at this year's AGM, held at Crewe Hall, Cheshire in April, it was agreed by the membership that the name of the association should be changed to the Association of Welding Distribution, to reflect the changes taking place in the welding equipment and consumables market, the member profiles and the maturity of the association.

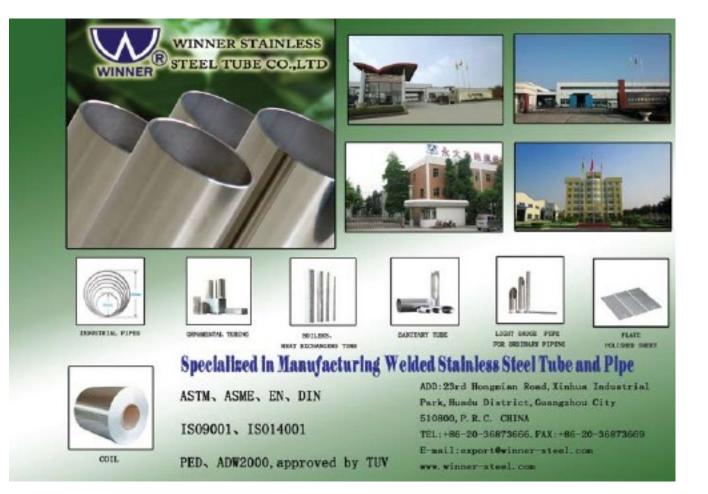
At the same time a vote by members was also carried to change the AWD status from an association to a limited company.

Other changes being carried out by the association are the development of a new interactive website with more industry information and easier access to the services that the AWD is able to offer, realignment of the constitution and code of conduct to reflect today's world, and continued evolution and development of the association's industrial magazine from 'Business Bulletin' to 'Welding World' to reflect the requirements of the welding industry.

At this year's AGM and conference the association held its first 'Welding World Exhibition', and plans to go on the road with this exhibition are being formulated by the council. A fume focus group seminar was also a first, and the council is looking to develop the area of providing seminars for its members and the industry.

The Association of Welding Distribution – UK

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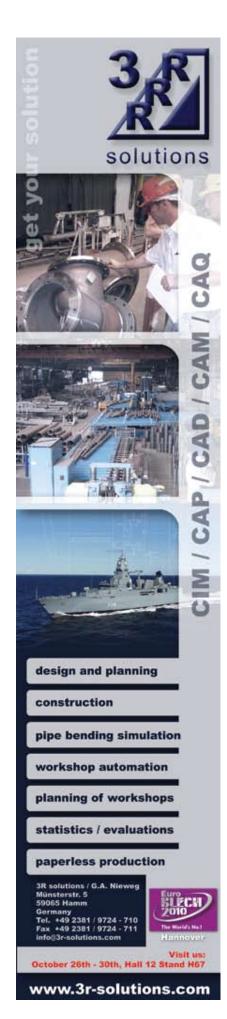


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Thermal profiling specialist

PHOENIX Temperature Measurement (PhoenixTM), based in Ely, Cambridgeshire, UK, and Bad Oeynhausen, Germany, specialises in designing and producing complete systems for thermally profiling furnaces, finishing ovens and ceramic kilns.

Thermal profiling is common practice in many tube manufacturing plants and is achieved by attaching thermocouples to critical points of the product, connecting these probes to a data logger, and by protecting the data logger with a thermal barrier, the whole system can travel through the furnace together with the product. In this way the true product temperature is monitored and stored for later analysis.

An area of specialisation for PhoenixTM is designing thermal profiling systems for monitoring the temperature of solid drawn tubing as it is heat treated in walking beam furnaces. In this process the thermal profiling system is often placed inside the tube itself with thermocouples placed into the tube wall along its length. This allows the actual product temperature to be monitored, which would not be possible with trailing thermocouples due to the rotation of the product as it progresses through the furnace.

Prior to homogenising, in the drawing operation, the steel billet from which the tube is drawn is reheated in a rotary hearth furnace. PhoenixTM systems can also be supplied to monitor this operation. Here the system is attached to the billet and passed through the reheat furnace while thermocouples buried within the billet collect temperature data to verify the predictions of the controlling mathematical model. Other tube heat treatment processes that are monitored using these systems include annealing solid drawn and ERW tube in roller hearth furnaces, homogenising ductile iron pipes, and solution treatment of stainless steel tubing.

Design of the monitoring system from the thermocouples through to the thermal barrier is critical, as this instrument must maintain a high degree of accuracy while resisting extremes of temperature, atmosphere and pressure. With over 60 years of combined temperature profiling experience, the senior PhoenixTM personnel have a deep understanding of all aspects of the design of products for these industries, and have good knowledge of the processes in which they will be used.

Sales director Michael Taake commented, "PhoenixTM has evolved to bring innovation, quality and simplicity to the process of thermal profiling and customers can be assured that the profiling systems supplied by PhoenixTM will have true experience designed into them, will be built to the highest quality standards, and will also be easy for operators to use."

PhoenixTM Ltd - UK

Fax: +44 1353 968684 Email: sales@phoenixtm.com Website: www.phoenixtm.com

PhoenixTM GmbH – Germany Fax: +49 5734 600441 Email: info@phoenixtm.de Website: www.phoenixtm.de



INDUSTRY NEWS

Pure completes acquisition of Pressure Pipe Inspection Company

PURE Technologies Ltd has announced that it has concluded the purchase of The Pressure Pipe Inspection Company (PPIC) for up to CAD\$34.9mn in cash and common stock of Pure.

PPIC, a privately-held company with headquarters in Mississauga, Ontario, is a leader in large-diameter water and wastewater pipeline condition assessment. PPIC is currently active in North America (including Mexico), South America, the Philippines and Hong Kong.

The base purchase price is \$30mn with provision for a maximum additional payment of \$4.9mn should PPIC generate revenues of \$24.9mn for the fiscal year ended 30 September 2010. The amount of the additional payment will be reduced on a dollar-for-dollar basis for every dollar that fiscal 2010 revenues fall short of \$24.9mn. The purchase price is based on a PPIC working capital balance of \$800,000 at closing and will be adjusted up or down on a dollar-for-dollar basis depending on the actual working capital at closing. Consideration paid at closing was \$8,955,776 in cash and Pure issued 3,782,476 shares valued at \$4.44 per share, which was negotiated as part of the transaction. This consideration is net of a holdback amount, which when released, would be paid in cash in the amount of \$800,551 and a further 776,903 shares. Any additional payments will be paid approximately 29% in cash and 71% in Pure common stock with an attributed value of \$4.44.

Dr Brian Mergelas, formerly the chief executive officer of PPIC, is now Pure's senior vice-president, corporate strategy & development. Dr Mergelas has published over fifty papers in academic and industry journals, and is a recognised expert in the field of pipeline condition assessment. He will be a key contributor to shaping Pure's strategic direction and in identifying future opportunities to grow Pure's business.

Commenting on the transaction, Pure's chief executive officer, Mr Peter Paulson, said, "This is a significant milestone for Pure and for the international water technology sector. The combined Pure/PPIC entity will be a world leader in the field of condition assessment and asset management for water and wastewater pipelines. We are excited about the opportunity to work with Dr Mergelas and his team as we continue to build awareness of the need for cost-effective strategies and solutions for the enormous challenges facing pipeline operators around the world.

"Working together, we will be able to deliver a cohesive and powerful message to the industry about the value of technologydriven proactive asset management. We are also looking forward to working with PPIC's research and development team to accelerate the introduction of new condition assessment tools for pipelines."

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INDUSTRY NEWS

Approved certificate awarded to Saint-Gobain

IRON technology solutions provider Saint-Gobain PAM UK has been awarded a WRc Approved certificate for its Blutop[™] range of water pipes. This approval was significant for both parties as it marks the 300th WRc Approved certificate awarded.

Dr Andy Russell, senior consultant at WRc, presented Dr David Smoker, business development director, and Paul Hancock, product manager (water and sewer) for Saint-Gobain PAM UK, with the WRc Approved certificate at the recent Wastewater seminar held by SBWWI (Society of British Water and Wastewater Industries).

Dr Smoker commented, "We are extremely proud of the quality and innovation behind the Blutop range so are thrilled to have been awarded this WRc Approved certificate after such a thorough testing process. The approval is important to us as it gives independent verification of Blutop's performance and our quality systems, and gives our customers the reassurance they need to be able to take advantage of the cost-savings that Blutop demonstrates against other materials. We are especially pleased to be celebrating the

milestone 300th certificate with the WRc and look forward to continuing our relationship in the future."

Dr Russell, senior consultant at WRc, added, "The WRcApproved scheme is totally independent and offers manufacturers an opportunity to demonstrate the performance of their products for water and wastewater applications in a controlled environment. Products are put though rigorous testing to evaluate their performance in relation to the manufacturer's claims and various integral aspects, such as factory quality control, installation procedures and onsite practice, so only the highest standard of products achieves approved status. We would like to congratulate David, Paul and the team at Saint-Gobain for being our 300th certificate - it's a real milestone for both parties."

Saint-Gobain PAM UK

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INDUSTRY NEWS

In-line inspection leads to new orders

FLEXI-CELL UK recently commissioned an in-line inspection system from Pixargus to document the high product quality of the company's profiles for the automobile industry. With this system, Flexi-Cell has not only improved the dimensional integrity of the products but also achieved increased throughput from the extrusion line.

Flexi-Cell UK, part of the Berwin Group, installed the inspection system to monitor the dimensional stability of precision extruded rubber profiles. The non-contacting optical system provides a continuous 360° view quality check of the profile dimensions, monitoring the product within pre-set tolerances.

Generally invisible to the human eye, any non-conforming areas are identified, automatically cut out to avoid inadvertent inclusion in deliveries to customers and recorded on a continuously running log. Customers receive a batch-related copy of the log to verify the integrity of the extruded profile quality.

The Pixargus inspection system was



53 rue des Fonteneires Z.1. du Peitr Parc 78920 Ecquevilly – France Tel : + 33 1 34 75 50 00 Fax : + 33 1 34 75 53 41 E-mail : sales@sofratest.com Website : <u>http://WWW.sofratest.com</u>

Representatives welcome

> 38



a critical factor in Flexi-Cell's recent successful bid for supply of rubber profiles to a major European automotive component manufacturer.

John English, Flexi-Cell's projects manager, commented, "To gain this business, we had to work closely with our customer and demonstrate our experience and absolute commitment to consistent product quality. The Pixargus equipment, together with the high quality supply of compound from our Berwin parent gave us the edge we needed. Production volumes are now exceeding our initial expectations."

The PCD X360 inspection system from Pixargus is an in-line profile measuring system that takes dimensional information from the external surface of the profile at a rate of two to eight times per second. These readings are compared with a reference profile and any deviations are recorded and displayed. The reference profile can be directly loaded into the system as a DXF-CAD file.

Pixargus has developed a new LEDbased illumination technology for the system, which, when compared with laserbased systems, gives higher measuring accuracy combined with longer service life. In addition, a robust touch-screen operator interface, capable of withstanding the hard conditions of the everyday working environment, makes the operation of the system simple and intuitive, whilst the low maintenance requirements of the Pixargus system contributes to the low total cost of ownership.

Pixargus designs, develops and manufactures systems for the in-line measurements of extruded profiles, sheet and web products. Founded in 1999 as a spin-off of the German Institute for Plastics Processing (IKV), part of the Aachen Technical University, Pixargus specialises in optical quality control of plastics and rubber extruded products.

Pixargus systems are used in the inspection of sealing profiles – for example in the automobile industry – tubes, catheters, cables or window profiles as well as raw material compounds of thermoplastic elastomers (TPEs) and rubber.

In addition, Pixargus manufactures systems for the inspection of web-type products, such as textured, woven and non-woven materials.

Pixargus GmbH – Germany Fax: +49 2405 47908 11 Email: info@pixargus.de Website: www.pixargus.de

Would you compromise a multimillion-dollar project with dirty tubes?

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Clean hydraulic tubes are especially important on remote sites such as oil platforms, or in the construction of a new ship, where your engineers want absolute assurance that nothing compromises a multimillion-dollar project.





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CC-GRP jacking pressure pipes play a major part in environmental plan

THE lagoon of Venice is not only the largest in Italy, but also one of the world's most famous. Situated between the drainage basin of the mainland and the sea it has been subjected to more and more pollution due to increasing industrial and agricultural developments in the region.

In 2000, the Regional Government of Veneto set up a plan to prevent further pollution and treat the water running from the basin into the lagoon. The Fusina project (PIF – Progetto Integrato Fusina) forms the main part of the planned efforts.

Within the bounds of this project, the existing treatment plant in Fusina is transformed into a multipurpose facility that purifies sanitary sewage and stormwater of Mestre, Marghera and Mirese (which together have approximately 350,000 inhabitants), industrial effluents and polluted groundwater from the Marghera harbour.

In order to optimise the treatment, the new plant collects sewage separately and according to the following scheme:

- Sewage type A: sanitary sewage and stormwater from Mestre, Marghera and 17 towns in the Mirese region
- Sewage type B1: industrial effluents from the Marghera port basin
- Sewage type B2: stormwater and sullage
- Sewage type B3: polluted groundwater

Type A sewage is biologically treated with ultrafiltration membranes and consequently phytodepuration. The latter is conducted on an area of around 15 hectares where the water is purified through metabolic processes of nymphae (water lilies) and other water plants. Walks and bikeways were built between the naturalistic



water lanes to make the area attractive for recreation. Instead of diverting 75,000m³ of water each day from the river Sile, the treated water is used by local industries and for cooling water in petrochemical plants.

Purified type B sewage and exceeding type A water that cannot be re-used is led through a 20km-long DN 1400 pipeline into the sea. The 20km outlet to the sea conveys the treated water 10km from the plant in Fusina to Lido di Venezia and another 10km to the sea where large tanker ships dock. In order to cross the Lido sandbar, 351m DN 1400, PN 6 pipes were installed by microtunnelling. The general contractor Impresa Costruzioni Mantovani was responsible for the installation and entrusted I.CO.P. SpA with the microtunnelling job.

"It took a long time for us to find a pipe that suits our requirements," explained engineer Meneghini who is site manager



at Mantovani SpA. "We needed a jacking pipe that would also withstand the operating pressure of the line. After a long research period we chose Hobas CC-GRP jacking pipes since these inherently possess the characteristics necessary for jacking as well as for pressure pipes: mechanical strength and optimal hydraulic properties. Normally, two different pipe systems would have been utilised to match all requirements."

The Hobas CC-GRP jacking pressure pipes that were chosen in 3m long sections, with an external diameter of 1,720mm and a wall thickness of 85mm, allow a maximal jacking force of 6,926kN. The leak-tight pipe system with its high performance couplings is produced to withstand an operating pressure of 6 to 10 bar. The very smooth outer surface of the pipes enabled comparably low jacking forces and allowed a single jack over the complete section of 351m. Only the starting and receiving pit were used, saving on three originally planned intermediate stations.

Thanks to the use of an MTBM (micro tunnel boring machine) drill head with a hydraulic soil removal (mucking) system and the smooth surface of Hobas CC-GRP pipes, the line was installed within less than a month. The extremely small roughness coefficient of the inner liner of the pipes and the relatively light wall construction reduced the volume of excavated material considerably, keeping costs to a minimum and making the installation a complete success.

Hobas Engineering GmbH – Austria Fax: +43 463 48 21 21 Email: info@hobas.com

Email: info@hobas.com Website: www.hobas.com

Pipe expanders and straightening systems

FONTIJNE Grotnes has developed over the years into a specialist in the design and construction of pipe-ends and full length pipe expanders for the pipe industry. The Fontijne Grotnes Expander ensures a constant, reproducible process regarding diameter and mechanical properties. The design maximises the radial forces in order to obtain maximum output in relation to pipe dimensions.

A full length pipe expander is an essential part of the production process in a pipe mill. The pipe expander process makes the welding of the pipeline in the field, even cut pipe sections, much easier. Fontijne Grotnes is constantly improving and preparing the full length pipe expander process for new market demands, like higher outputs, greater wall thicknesses, higher material grades up to X120, stricter ovality and straightness tolerances.

The Straightening System is a development of Fontijne Grotnes that is especially designed for small pipes ranging

from 16" to 30". The system controls the straightness of the pipes in all directions within ½ API and DNV standards. The company's pipe end-expander sizes the end of large diameter pipes to parallel-, spherical- and semi-spherical joints. The joints are applicable for, among others, SSAW pipes, mainly used for conveyance of water and sewage.

In February 2010 Fontijne Grotnes

opened a new office in Beijing, China. This office represents the company in the Chinese market and will strengthen its position in the pipe, wheel and metal forming industry.

Fontijne Grotnes BV – The Netherlands Fax: +31 10 435 26 55 Email: info@fontijnegrotnes.com Website: www.fontijnegrotnes.com



A Fontijne Grotnes straightening system



Advanced ultrasonic thickness gauge

OLYMPUS NDT has introduced the handheld 38DL Plus ultrasonic thickness gauge. The instrument is compatible with the complete range of Olympus dual element and single element transducers, making it an all-in-one solution for many thickness gauge applications.

Applications can range from wall thinning measurements of corroded pipes using dual element probes to very precise thickness measurements of thin or multilayer materials using single element transducers. Ultrasonic thickness measurements are accurate, reliable and repeatable, and instant readings can be achieved from one side of a material, making it unnecessary to destroy the part.

The Olympus 38DL Plus is built for use in a wide range of weather conditions and difficult inspection environments. Its sealed case is designed to meet IP67 requirements to withstand the rigours of very wet or dusty environments, while the transflective colour LCD with full VGA



resolution provides readability in bright sunlight or complete darkness. The simple keypad can be operated with the left or right hand, for easy access to all important functions.

"This innovative instrument signals a new era in ultrasonic thickness gauges," commented Steve Labreck, product manager for thickness gauges at Olympus NDT. "The fact that the 38DL Plus can be used with dual (2 to 10MHz) and single element transducers ranging from 0.5MHz to 30MHz solves the problem of having to buy two gauges, one for corrosion applications and one for precision thickness measurements."

The 38DL Plus boasts powerful standard thickness measurement features and specialised software options. For corrosion detection applications, the gauge offers Thru-Coat® and Echo-to-Echo to measure thickness with no need to remove paint and coatings, time-based B-scan that converts live thickness readings into cross-sectional drawings, and the patent-pending V-path Builder to build custom V-path compensation curve for dual element probes. In addition, the unit offers the optional boiler tube Oxide/Scale feature to measure the oxide/scale buildup inside boiler tubes, and EMAT capability to measure the wall thickness of boiler tube thickness without the need to remove external scale built-up.

When used with single element transducers, the 38DL Plus makes accurate thickness measurements on many materials including metals, plastics, composites, glass and ceramics. It also offers an optional high resolution feature that allows very precise measurements with a resolution of 0.0001" or 0.001mm. The multilayer measurement option provides up to four simultaneous thickness readings of a multilayered material. The optional high penetration feature makes measurements on very thick or sound-attenuating materials such as cast metals, rubber and fibreglass.

For use with single and dual element transducers, the 38 DL Plus offers standard features such as sound velocity readings, time-of-flight readings, differential mode, reduction rate mode, and material temperature compensation.

The 38DL Plus provides internal storage of inspection data of more than 475,000 thickness readings or 20,000 waveforms in various file formats. A Micro SD card allows the export of files in text or CSV formats and the ability to exchange inspection data in the field. The GageView Interface Program allows transfer of data with both standard USB and RS-232 ports.

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3

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The Leading Manufacturer of High-Technology Tube Production Equipment

Easy tool change tube mill

THE Oto 40616 ETC (easy tool change) tube mill includes Flexible Forming (FFX) as conceived by Nakata. Forming rolls need not be changed, but simply adjusted according to recipes as a function of tube diameter. Finishing and sizing sections are designed with interchangeable 4-roll stands.

The tooling change has been conceived to minimise change-over time and operator involvement throughout the tube mill. Using existing forming concepts, Oto Mills has automated the tooling pick and set-up operations.

In the finishing and sizing, the quick change-over does not occur by replacing the entire stand (as typically executed on smaller mills), but by swapping the assembly including rolls, shafts, bearing blocks and side rolls from the top of the stand.

All driven stands are mounted to the mill base and universal joints are provided with an automated engagement/disengagement hydraulic system from the mill shafts allowing for the roll, bearing block, shaft, and side rolls (if provided) to be moved in and out of the stands, which are designed with an opening at the top to enable the change-over operation via crane.

Jacks and absolute encoder for top shaft adjustment are part of the removable assembly. Adjustments on the roll, shaft and bearing block assembly are performed through electric gear motors and absolute encoders. The entire change-over operation is automatic, so that operators are simply involved in the lifting of the roll assembly in one motion.

The Oto 40616 ETC tube mill comes with a second set of shaft, bearing block and side roll assemblies to enable offline roll change-over. The customer may also choose to purchase extra shafts and bearing blocks, which can be permanently assembled to the rolls for even faster roll replacement.

Oto Mills SpA – Italy Fax: +39 0522 964188 Website: www.otomills.com



Oto Mills' easy tool change tube mill







Tube Finishing Lines for Hot-rolled + ERW steel tubes



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TECHNOLOGY UPDATE

Brushes for de-burring tubes

LESSMANN, Germany, is a leading manufacturer of wire brushes. The brushes are used for many different industrial applications, such as cleaning weld seams or structuring surfaces. A common application in the tube industry is de-burring cut edges of tubes. After sawing tubes often have sharp edges and burrs that remain, which have to be removed.

When de-burring tubes manually, table countersinks or grinder benches with rotating wheel brushes are usually used. These brushes remove burrs reliably and easily.

When manufacturing tubes with fixed lengths in serial production, de-burring machines are used for the treatment of the cut edges. The tube is transported through a double sited de-burring machine and touches with both ends the rotating roller brushes in the machine. The tube turns on its own axis and enables the roller brushes to reach all burrs, both at the inner and outer side of the tube.

Depending on the application and the working piece, crimped, knotted wires or wires in special constructions are used. The available qualities and sizes of the wires are manifold. In addition to the common steel wire de-burring brushes, Lessmann produces brushes with special filaments like nylon or abrasive nylon.

Since this de-burring application is very intensive in material, a high durability of the brush is necessary. Therefore Lessmann produces brushes in a high quality, which ensure an excellent brushing result.

Technical brushes are also used for the removal of the coating of large diameter tubes. In the field of pipeline service special brush constructions run through the pipes up to a distance of several hundreds of kilometres, for cleaning and testing the pipes for nonconformities. Shorter pipes up to a diameter of approximately 100mm can be effectively cleaned by knotted end brushes.

Lessmann GmbH – Germany Fax: +49 9082 707 78 Email: info@lessmann.com Website: www.lessmann.com

Manual de-burring of cut edges with brushes





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Systems for HVOF plasma and rod spray

A ROLL forming machine draws hot or cold rolled steel through successive stations and shapes the material into a tube. Electric resistance welding closes the seam left by the butted edges. Although no filler metal is added that would change the chemical compositions, the welding process applies temperatures high enough to sacrifice some corrosion resistant properties of the base metal. The process may also vaporise aluminium or galvanised coatings previously applied to the rolled steel.

A contoured scarfing tool or smoothing mandrel removes weld spatter or excess material from the outer diameter of the tube surface. Many tube makers install a two-wire electric arc spray process directly downline from the scarfing tool or smoothing mandrel.

The spray process applies coatings of aluminium, zinc or their alloy materials to reinstate the corrosion resistance properties of the tubing. Applying the spray material while the weld seam is still hot ensures a metallurgical bond of the sprayed material with the substrate, improves both the deposit efficiency and density of the sprayed material, and allows the coating to blend, thereby helping to hide the weld seam.

Arc spray is the most user-friendly and, in terms of operating cost, the least expensive of the thermal or metal spraying processes used for applying metal coatings to base materials. Any electrically conductive material in wire form can be arc sprayed.

An AC motor wire pulling system, fitted in the gun, ensures precision wire feed speed. The wires meet at the head of the gun and melt in the electrical arc. The molten mass is atomised and blown onto the substrate with compressed air. The particles cool to ambient temperature and coalesce into a high quality metal coating.

The distance from the arc to the tube seam is an important measurement on tube mill installations. Standard arc spray air caps provide conical spray patterns. Straight extensions provide elliptical patterns of 12.7 to 19.05mm ($\frac{1}{2}$ " to $\frac{3}{4}$ ") wide at arc to tube distances of 19.05 to 31.75mm ($\frac{3}{4}$ " to $\frac{1}{4}$ "). A small spray width minimises over-spray and precisely controls

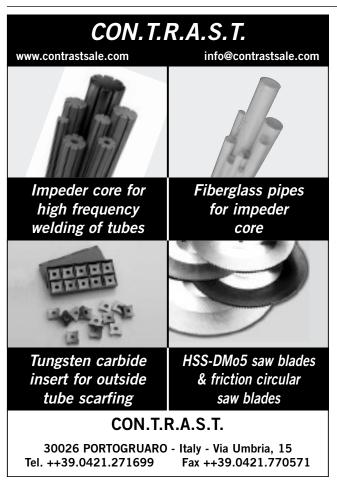
material usage. Generally, the speed of the tube through the mill determines the spray amperage, and spray amperage directly affects the material usage. The spraying speed for zinc is approximately 10.89kg (24lb) of material per hour for every 100 amperes of current.

The larger the tube, the slower the speed. Most tube mill spray systems operate anywhere from 30 to 300 amperes, depending on the speeds and the desired thickness of the sprayed material. It would require approximately 2.95kg (6.5lb) of zinc to spray a coating 26 microns thick with a 12.7mm ($\frac{1}{2}$ ") spray pattern on 762m (2,500ft) of tubing.

Installing the arc spray gun in an enclosed box ventilated to a dust collector ensures environmental and personnel safety. Dust, fumes and over-spray must be removed from the spray zone quickly.

Metallizing Equipment Co Pvt Ltd -

India Fax: +91 291 2746359 Email: mecpl@sancharnet.in Website: www.mecpl.com



Mechanical presses join Muraro's portfolio

FOLLOWING its recent acquisition of Colombo Agostino, Muraro SpA now has a division for mechanical presses: the Colombo Agostino Mechanical Presses Division.

The mechanical presses join Muraro's existing product range, which includes hydraulic presses with capacity up to 500,000kN, special machines for cold, warm and hot forming, machines for hydroforming, elastoforming and stretchforming, technologies for forging, milling and induction heating, and hot shearing plants.

The mechanical presses are available together with their elevated manufacturing capacity in the sectors of sheet forming, the cold, warm and hot precision forging, as well as automation and systems meant for the elimination of the dead times.

Muraro SpA

Italy
 Fax: +39 0444 686115
 Email: info@muraropresse.com
 Website: www.muraropresse.com

Colombo Agostino

Italy
 Fax: +39 039 305905
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 Website: www.colomboagostino.com

ORT Italia corrugation machine

ORT Italia has introduced the new MPF corrugation machine, which has been designed to the most modern technical criteria: stiffness of all structures; maximum user-friendliness of the control panel; minimum maintenance requirement; and simple set-up and quick change over.

Corrugation is possible on a wide range of thin wall tubes of different materials, lengths and diameters. The MPF corrugation machine is usually used as part of a continuous manufacturing process, starting from tube in a coil that needs to be uncoiled and straightened. The machine can also work as a standalone unit with cut to length tubes.

The tube is inserted into the machine and secured by two pneumatic clamps at the ends of the corrugation area. The corrugation head rotates by means of a CNC brushless motor, and the corrugation rolls are driven by ball screws, which control the penetration depth. The corrugation heads move along a CNC-controlled mobile carriage.

ORT Italia specialises in the design and manufacture of cold and hotrolling machines for spline, thread and corrugation. The company dedicates a considerable part of its revenue to research and development, and its metrology lab and testing room, recently renovated, allow performance trials and testing of new installations.

The company exports over 70% of its production all over the world, and it is present in all the main markets with direct sales and service assistance.



ORT Italia has installed over 4,000 machines worldwide

ORT Italia SpA – Italy Fax: +39 0374 370338 Email: info@ortitalia.com Website: www.ortitalia.com

More GPU routines for metallurgy research

METALLURGISTS involved in applied thermodynamics and other data-intensive metallurgical studies who are interested in achieving top performance from GPUs in diverse applications using Monte Carlo simulations can now obtain an updated version of NAG numeric routines for GPUs from the Numerical Algorithms Group (NAG).

General Purpose GPUs (graphical processing units) were originally used for 3D gaming acceleration on personal computers, but have recently been at the forefront of numerical and scientific computation. Monte Carlo simulations are used in a wide array of technical computing applications in diverse areas such as finance, engineering simulations, drug discovery, scientific research, and oil and gas exploration. Speaking for NVIDIA, a leader in GPU computing, Andrew Cresci, GM vertical marketing commented, "The ecosystem around GPU computing is growing rapidly and NAG's additions to their routines for GPU computing could not be more timely. NAG's numerical libraries are renowned for delivering top performance while maintaining the highest standards of accuracy.

"There are now some 60,000 active CUDA developers, and providing access to trusted algorithms from NAG is a major milestone that enhances the maturity of NVIDIA's GPU computing architecture."

NAG's numerical routines for GPU computing are available to academic researchers involved in collaborative research with the NAG organisation. Commercial organisations can also gain access to NAG's GPU code and programming services by contacting the NAG offices in their area.

The latest release of NAG's code for GPUs contains routines for Monte Carlo simulations – Quasi and Pseudo Random Number Generators, Brownian bridge, and associated statistical distributions.

With origins in several UK universities, the Numerical Algorithms Group is a UK-headquartered, not-for-profit numerical software development organisation that collaborates with world-leading researchers and practitioners in academia and industry.

Numerical Algorithms Group – UK Fax: +44 1865 310139 Email: infodesk@nag.co.uk Website: www.nag.co.uk



Apple apps as marketing tool booming

APPLE applications (apps) which can be used on the iPhone, iPad and iPod Touch are becoming important marketing tools for companies. The first app for the tube industry, called TubeCalc, is now available.

For years people have been trying to find an easy way to calculate certain values of a specific industry norm, avoiding the need to have to check various tables. In response, RiesArt initially tried to develop a traditional calculator. This calculator was complicated to make, very expensive and carried a high risk of a critical mistake being made.

Inspired by the functionality of the iPhone, RiesArt, in cooperation with Bananas Design, has now successfully developed the TubeCalc app.

TubeCalc can be used to calculate important functions of hollow tube sections

using the construction industry's European Standard EN10219 norm, while operating at the same time as an ordinary calculator. EN10219 applies to cold formed welded circular, square and rectangular structural hollow sections. TubeCalc allows the user to calculate mechanical data such as mass, (superficial) area, moment of inertia, radius of gyration, plastic and elastic modulus and the torsional.

Benefits of TubeCalc include instant outcomes on all tube size ranges covered by EN10219; reduced user errors; clear display showing inserted data at all times; minimised need to re-input data, as inserted data will remain in place; instant switch option between metric and US Standard units; the ability to use values from TubeCalc in the normal calculator mode; and no more need to check tables.

The iPhone caused a revolution when it was released in the smartphone market three years ago, and quickly gained a large market share. The iPad is set to do the same thing in the emerging tablet market. Together with the iPod Touch, there are already more than 85 million devices running the iPhone OS. An important factor of the success of these devices is the App Store, where users can easily download and install applications. As of Spring 2010, 185,000 apps were already available and application downloads passed the 4 billion mark. TubeCalc can now be found within the App Store.

Increasingly companies are discovering apps as a tool to promote their brand or product. An app is a more interactive experience than traditional marketing methods and can be especially powerful when the unique features of the device, such as the iPhone touch-screen and GPS location, are incorporated within an app.

While websites are still the dominant form of interaction with customers, apps can offer the same information in a much more interactive and personal form. Apps can be easily and relatively inexpensively designed for numerous functions, and Bananas Design and RiesArt anticipate that many more apps will be developed for the tube and pipe industry.

Bananas Design – New Zealand Email: info@tubecalculator.com Website: www.tubecalculator.com

Inauguration of Bihar Tubes

BIHAR Tubes Ltd (a unit of the Sudesh Group) has been a leader in the Indian tube industry for the last two decades, and is one of the few organisations which makes all types of tube (ie black round/hollow section, hot dip galvanised round/hollow and pre galvanised round/hollow tubes).

Started in 1986, Sudesh Group until recently consisted of four companies (Bihar Tubes Ltd, Apollo Metelax and Apollo Pipes in North India, and Shri Lakshmi Metal Udyog Ltd in South India), manufacturing 13,000 MT/month of round and hollow sections in the size range $\frac{1}{2}$ " to 12".

Sudesh Group recently inaugurated its fifth unit – Bihar Tubes Ltd Unit II at Hosur (TN), South India, with the commissioning of a $\frac{1}{2}$ " to 12" tube mill (capacity 4,000 MT/ month), along with finishing equipment. Installation of a 2" to 6 $\frac{1}{2}$ " tube mill (capacity 9,000 MT/month) is in progress and production was planned to start in June 2010.

A 4" to 12" tube mill and a hot dip galvanising plant are planned to be commissioned by August/September 2010. This will complete the first phase of the unit, taking the production of the group to more than 30,000 MT per month. In the second phase, an 8" to 20" or 24" API tube mill is planned to be set up, along with finishing equipment and coating line.

Bihar Tubes Ltd

India
 Fax: +91 11 22373537
 Email: bihartubes@bihartubes.net
 Website: www.bihartubes.net



Fast and accurate dosing

BRONKHORST, a leading European company in mass flow metering and control, is offering a modern alternative to the gravimetric or weighing scale method of dosing additives, fragrances, flavours and colourants, which promises shorter processing times, better product results and improved working atmospheres.

The latest Cori-Fill[®] compact fluid dosage assembly, which combines an accurate Cori-Flow or mini Cori-Flow flowmeter with a suitable valve or pump, is capable of dosing the exact amount of fluid, whilst multiple instruments can be used for the simultaneous dosing of compounds.

Cori-Fill is suitable for a wide range of batching, blending, dosing, filling and sterilisation applications, at flow rates between 0.4g/hr and 600kg/hr. Aimed at the food and beverage, pharmaceutical, chemical, cosmetics, contact lens and life sciences industries, it has a compact footprint and requires no complex programming of additional hardware.

The conventional gravimetric method achieves the dosage of mass/volume through the use of a shut-off valve and a weighing scale, located under the valve's outlet nozzle. The weighing scale sends a signal to a PLC on receiving the correct dosage, then moves to another valve for the next compound to be added. This is a timeconsuming process, with all compounds dosed one by one and a zeroing procedure required at each valve.

Due to the advanced Cori-Fill technology, with integrated batch counters and the facility to directly operate shut-off valves, it is capable of dosing the precise amount of compound into the collecting vessel, with just a brief reset command to start the next batch. The Coriolis direct mass measurement method eliminates volumetric variation caused by changing temperatures, viscosities and densities of the ingredients, leading to accurate, repeatable quantities batch after batch. As a result, the Cori-Flow method is said to be faster, more compact and more accurate than weighing scales, and product results are better due to less evaporation of volatile fluids.

It is also possible to use multiple Cori-Fill instruments to dose a number of fluid additives simultaneously, leading to shorter production times with no intermediate zeroing procedures. The amounts to be dosed can be easily preset by programming the onboard batch counters, via a fieldbus connection. The working atmosphere is also improved, as there is no dosing of additive into open storage vessels, of the kind needed for weighing scales.

Cori-Fill assemblies are offered with a choice of Cori-Flow instruments, for flow rates between 20g/hr to 600kg/hr, or the highly compact mini Cori-Flow series, for capacities from 0.4g/hr up to 30kg/hr. Either instrument type can be combined with a shut-off valve, for short batch sequences

down to <0.3sec, a proportional valve, for longer dosing times >5 seconds, or a gear pump, for dosing without the need for pressurised vessels. The flowmeter's onboard PID controller is optimised for controlling the valve or pump, for an instant start to dosing duties. Accuracy is 0.5% or better for mass dosing and 1% for volume.

Bronkhorst UK

Fax: +44 1223 837683 Email: sales@bronkhorst.co.uk Website: www.bronkhorst.co.uk



'Pipe Raiser' cuts transport costs in half

THE European guideline 96/53 for transportation limits the width of loading on trucks to 2.55m. This results in individual pipe transports for diameters above 50". Feeling responsible to increase the safety and efficiency in the logistics of line pipes, Dhatec BV found a solution. By raising one pipe above the other, the width of the total load can be reduced. The 'Pipe Raiser' allows for two pipes of 50" to 60" on one truck, and thus reduces necessary transports by half.

Is the new 'Pipe Raiser' system safe? According to the TÜV Nord it is. Thorough testing was arranged with the help of Wagenborg and Europipe who provided the truck and pipes. In Dreierwalde, Germany, the system was tested according to the VDI 2700 standards during two days. The police witnessed the tests that included front and back braking, S-curves and U-turns in both directions. The necessary G-forces for nonlinear motion were reached in all directions (0.5G to each side, 0.8G to the front, 0.5G to the back).

The U-turns, in which the truck would

have keeled over if it weren't for the supporting wheels, were described as being spectacular. The Pipe Raiser and the pipes, however, remained in place at all times. The trustworthy system together with supporting calculations convinced the TÜV Nord that the 'Pipe Raiser' is safe for road traffic. For this innovation, which improves worldwide pipe transport, Dhatec received a TÜV certificate.

The 'Pipe Raiser' is an extension of Dhatec's system for pipe transport, 'System88'. The endeavour for improvement of safety and efficiency in the line pipe processes makes Dhatec an innovative partner. All of Dhatec's products aim to ensure the quality of line pipes throughout the logistic process from manufacturing to coating, transport, storage, handling and construction.

In addition, Dhatec assists project managers to organise the logistics of pipeline projects. The company's knowledge and experience provides project managers with advice for damage prevention and on-site safety. Dhatec – The Netherlands Email: info@dhatec.nl Website: www.dhatec.nl



Dhatec's Pipe Raiser system places one pipe above another, to reduce the width of the total load

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Ultrasonic tube testing machines

OVER the past few years, GE Sensing & Inspection Technologies has supplied more than 20 automated ultrasonic tube testing machines to major pipe mills in China. These machines are integrated into customers' production lines and are used to test a wide range of seamless tubes. These extend from small diameter, cold finished tubes for power plants, to large diameter, large wall thickness, hot finished tubes for application in oil country tubular goods (OCTG).

The tube testing machines supplied have featured various scanning principles. These include rotary heads with rotating probes and linearly transported pipe; stationary probe tanks and helically transported pipe; and stationary rotating tubes with probe holders travelling along the pipe length.



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Metals Technologies

Typical inspection tasks have been the detection of longitudinal and transverse flaws, with the option for oblique flaw orientations and lamination type flaws. Thickness and diameter measurement can also be performed within the testing machines, most of which are equipped with conventional probes, although some have phased array probes and corresponding multi-channel electronics.

In addition to its range of ultrasonic testing machines for seamless pipes, GE Sensing & Inspection Technologies also supplies ultrasonic testing machines for welded pipes (ERW and SAW).

GE Sensing & Inspection Technologies is a leading innovator in advanced measurement, sensor-based and inspection solutions that deliver accuracy, productivity and safety to customers in a wide range of industries, including oil and gas, power generation, aerospace, transportation and healthcare. The business is part of GE Energy Services and has more than 40 facilities in 25 countries worldwide.

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TECHNOLOGY UPDATE

New flexible voltage plasma cutters

GYS Ltd, the French welding equipment and battery charger manufacturer, has launched the single phase 230V Plasma Cutter 21 and the flexible voltage 85-265V Plasma Cutter 31FV, two new lightweight industrial plasma cutters, both utilising inverter technology.

Both machines are designed to produce low intensity quality cuts, even on painted surfaces, without any distortion. The Plasma Cutter 21 is able to cut up to 4mm aluminium and copper as well as 6mm steel, stainless steel and cast iron sheets with the capability to cut 6mm steel and 4mm aluminium at speeds up to 15cm/min at 20A. The Plasma Cutter 31FV is able to cut 8mm aluminium and copper as well as up to 10mm steel, stainless steel and cast iron sheets. It can cut 10mm steel and 8mm aluminium at 9cm/min at 30A.

The machines are designed for industrial maintenance and car body repair work as well as on-site work. With the GYS 'Pilot Arc' system on both machines, the arc starts without any contact with the sheet being cut, making them easy to use. Starting without any HF avoids any electromagnetic interference (phones, computers radios, etc).

The Plasma Cutter 31FV features both PFC (Power Factor Correction) and FV (Flexible Voltage) technology, which enables it to be used with either 110V (32A) or 230V (16A), or any voltage in the range 85-265V, and with PFC technology it can be used with a power generator and also with long extension leads without any reduction in the performance of the machine. It also has protection for use with generators and has been over voltage tested up to 400V.

Both machines have IP23 protection against rain and dust impregnation and are supplied with an air cooled torch and 4m hose equipped with a safety trigger to avoid accidental starting. Options include a compass kit for circular cutting and a wheeled trolley for maximum operator convenience.

GYS is one of France's largest manufacturers and suppliers of MIG, TIG, MMA and plasma welding products and battery chargers, including specialist resistance spot welding, plasma cutting and dent pulling equipment for the car body sector.

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



GYS's new Plasma Cutter 31FV

The World's No.1

Supplier of new and second hand revamped machinery

EUROMAQUINA has been committed for over four decades to the steel processing industry, focusing on sheet, profiles and tubes, and bars. In these years, 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 Euromaguina 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 offers a very wide range of new and used machinery that 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 Spain-based 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; upgrading and automation of used machinery (straightening, peeling); exhaust systems; NDT tables; and Filtra.4 (www.filtra4. com) maintenance-free emulsion filtration systems, which are delivered to plug and run.

Euromaguina SA

Spain Fax: +34 91 658 62 08 Email: comercial@euromaguina.com Website: www.euromaquina.com

Heat exchangers

APPLIED Cooling Technology Group (incorporating Britannia Heatex Ltd) designs, manufactures and repairs both Shell & Tube and Air-Blast (finned) heat exchangers, and specialises in the use of titanium materials in addition to steel, copper-alloys and stainless steel.

The company has also patented technologies that it says can help companies to resolve common longevity issues such as erosion, corrosion and impact damage.

With manufacturing facilities in both the UK and USA, the company is wellplaced to fulfil the demands of the heat transfer industries associated with power generation, marine, petro-chemical, offshore, compressor and other industrial sectors.

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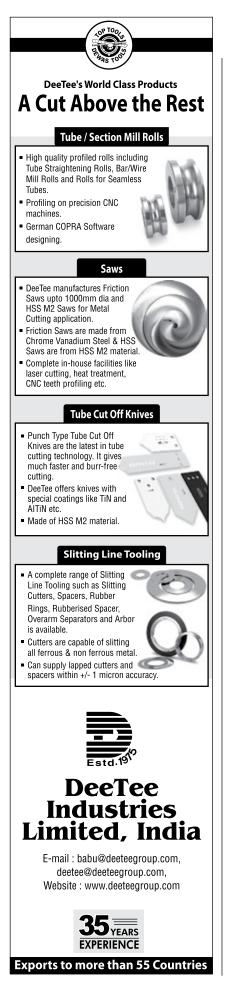
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Length and speed measuring on hot tubes at Tubus Reunidos

THE new laser Doppler LMC-L Series offers higher accuracy, speed and lifetime. The series achieves up to 25,000 real measurements per second, which is claimed to be more than 10 times faster than any other device on the market. All major interfaces (Analogue, Pulse, ProfiBus, DeviceNet, EtherNet IP and so on) 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 Spanish seamless tube manufacturer Tubus Reunidos Industrial, SLU to order a 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. It offers a wide range of laser based sensors as well as off the shelf and customised systems for use in the light and heavy industry.

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

Multi-process LPG welder for maintenance and repair

LINCOLN'S new Ranger[®] 305 LPG is a powerful engine-driven welder that allows users to seamlessly switch between multiple processes.

While liquid propane gas (LPG) is less common, it is required when operating in areas where gasoline and diesel engines are not permitted. This is typically the result of company policy limiting the type of engine that can be powered in a work environment.

Designed for maintenance, repair and construction applications, the Ranger 305 LPG provides DC multi-process welding for general purpose stick, downhill pipe (stick), Touch Start TIG[®], cored-wire, MIG (CO₂ and mixed gases) and arc gouging. Lincoln states that the Ranger 305 LPG is North America's only LPG compact welder rated at 25 Volts for 300 amps of stick welding. It also accommodates CV wire welding up to 5/64" (2mm) diameter electrodes. Welding and AC generator power is delivered by a 25 HP Kohler[®] LPG engine.

With digital weld meters, operators are able to easily preset procedures, as well as monitor actual welding output. The Ranger 305 LPG uses Lincoln Electric Chopper Technology to deliver superior arc performance, including easy starts, a smooth arc, low spatter and excellent bead appearance.

The machine provides 10,000 watts peak single-phase AC generator power, and 9,000 watts for continuous high capacity needs, including serving as a back-up generator for lights, a grinder or other power tools. If an inverter power source is needed to add a second arc, the skewed rotor design allows the Ranger 305 LPG to generate suitable AC power.

The Lincoln Electric Company – USA Website: www.lincolnelectric.com



Lincoln's welders can be used for multiple purposes



HEBEI WENLONG PIPELINE EQUIPMENT CO.,LTD



PRODUCT RANGE:

1

MATERIALS:

ELBOWS--LR 45DEGREE,90DEGREE RETURN BENDS--LR SR 180 DEGREE TEES:STRAIGHT AND REDUCING REDUCERS--CON &ECCENTRIC SEAMLESS FITTINGS DIMENSIONS: 1/2"--40" SEAM WELDING FITTINGS DIMENSIONS: 26"--96" A234-WPB,WPC,WP1,WP5,WP9,WP11,WP12,WP22,WP91, A860-WPHY42,WPHY52,WPHY60,WPHY65,WPHY70,WPHY80 A420-WPL3,WPL6,WPL9,WPL8

A403-WP304L,WP304,WP304H,WP316,WP316L,WP316H

STANDARD:

ANSI 816.9, ANSI 816.28, MSS-SP-75 DIN2605-1, DIN2616-2, DIN2615-1, DIN2615-2 DIN2616-1, DIN2616-2 EN10253-1, EN10253-2



Hebei Wenlong Pipeline Equipment Co., Ltd

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Tel:+86-317-6216660 6216661 6396456 6396579 Fax:+86-317-6216662 6392682

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Mail:wenlong@hbtenghao.com pipefitting@hbtenghao.com Msn:wenlong@hbtenghao.com

Alibaba account ID: wenlongpe

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

New ZH401 bending machine

EAGLE Bending Machines Inc has introduced the new ZM402 & ZH402 2" capacity, 3 roll, pyramid type universal roll bending machines with manually or hydraulically adjusted forming roll, dual driven lower rolls and a mobile control stand with LED digital readout to monitor the forming roll. "Z" Series Main Frames are constructed from solid steel, CNC machined and stress relieved. There are no cast components an Eagle Roll Bender.

Shafts are precision machined from alloy steel, heat treated and precision ground. Roll shafts run in dual high dynamic load

roller bearings. The forming roll journal moves on adjustable hardened guides and way for prolonged machine life. Digital readouts permit precision repeatability. Heavy duty dual lateral material guides are provided to support material while rolling or to create pitch for coiling or spiral hand rail work.

A universal modular bending roll tooling set comprised of 18 heat treated, wear resistant, components is standard and bends most standard profile sections. Machines operate in vertical and horizontal positions for versatility and safety. The new "Z" benders can be fitted with optional scrolling devices, picket twisting devices, tube & pipe rollers, as well as many other speciality tools to meet various dedicated needs.

Top roll way dust covers keep out mill scale and the mobile control stand includes dual foot pedals for CW/CCW or forward/ reverse rotation.

Low voltage 24V AC controls and dual emergency stop palm switches (one on machine and one on the console) enhance operator safety. Eagle for quality, features, service and lasting value.

Eagle Bending Machines Inc – USA Email: sales@eaglebendingmachines.com Website: www.eaglebendingmachines.com

Stainless steel components

KUHN Special Steel is a privately owned German company specialised in the production of stainless steel components for capital goods. Using the centrifugal casting technique, Kuhn Special Steel produces up to 260 tons of raw, preprocessed or finish-processed stainless steel products per week.

The company's large material spectrum ranges from low-alloy steels to iron-free alloys including austenitic steels, martensitic and ferritic stainless steels as well as a large number of duplex steels. The large variety of materials in combination with the efficiency of the centrifugal casting technique ensures quality and is a competitive alternative to forged materials wherever rotationsymmetrical geometries are required.

For 50 years the company has manufactured components according to customers' drawings and specifications for more than 30 different industries, where high wear-resistance, corrosionresistance and precision are required, such as shipbuilding (eg bushes for rudder stocks, engineering parts for diesel engines), decanter industry (conveyor bodies, decanter bowls), food industry (bushings, drums), and steelworks (mono cast rolls and bimetal-component rolls or shells).



Klaus Kuhn Edelstahlgießerei GmbH – Germany Fax: +49 2195 671 49 Email: m.wittlich@kuhn-edelstahl.de Website: www.kuhn-edelstahl.com



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Complete solution for thin-walled stainless steel applications:







Solutions for plant construction

THE Hoesch Schwerter Profile GmbH develops its products in close collaboration with individual branches and customers. Special profiles are employed in almost all sectors of the steel-processing industry. Today, steel-specific solutions are implemented that have to withstand even the most severe loads, in particular in modern power stations or industrial facilities.

Modern industrial processes have so many different requirements especially for tube materials, that these often cannot be fulfilled by one single material. For instance, individual or combined operational demands may trigger different, even contrary requirements in terms of corrosion-, oxidation- or wear resistance of tube surfaces as well as strength. Constructive problems of this kind may be solved by using so-called "compound tubes", which generally consist of two different individual materials as their outside or inside surface.

To manufacture compound tubes of this type with metallurgical fusion between the two materials, Hoesch Schwerter Profile GmbH uses a special procedure: The tubes are manufactured by extruding a pressed blank or pre-block made of two material components, combining them at the high pressure and the high temperature prevailing during extruding.

It is possible, chiefly due to the implementation of a new technology for block manufacturing, to achieve an excellent metallurgical fusion.

Application areas for such compound or composite tubes are cauldrons for regeneration of leach in the cellulose industry, cropping of control rods in nuclear technology, steam boiler pipes in incinerator plants, cooling pipes in furnaces for gravel roasting, pipes in exhaust heat cauldrons, and overheating pipes in fossil-fired steam cauldrons.

Hoesch Schwerter Profile GmbH – Germany

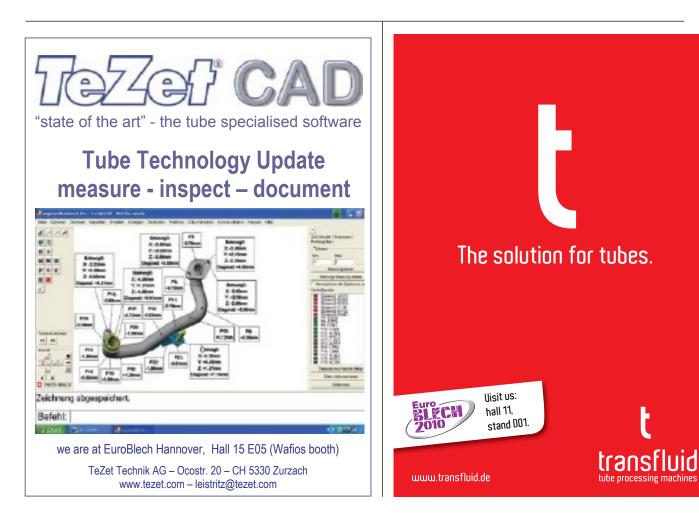
Fax: +49 2304 106 673 Email: klaus.gedding@hoesch-profile.com

Asset ID printing

AFTER two years of thorough product design, InfoSight has come to the asset ID market place with the JM410. Targeted at manufacturers who require a high performance tag from a low price printer, the JM410 reduces the initial cost of a genuine CO_2 laser printer to a minimum. This allows small quantity users of high durability metal tags the ability to afford a cost effective solution.

The JM410 features a wide marking area of 4" x 4" and a 10-watt high quality laser. InfoSight has added to the JM410 line of printers the ability to mark the many foil type tapes, such as 3M, Bradey, Johnson and Tesa. The LabeLase[®] Producer™ software contains the vector shapes required to 'kiss cut' such tapes. The foil tape option allows for rolls up to 4" wide to be fed into the back of the marker and manually indexed into the 4" x 4" marking area.

InfoSight Corporation – USA Fax: +1 740 642 5001 Email: sales@infosight.com Website: www.infosight.com



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Skiving machine

OP, Italy, has introduced the new SPF6 skiving machine, which will soon replace the SPF4 and SPF3 models, which are no longer manufactured. The SPF6 was specifically designed to meet the need to combine the main characteristics of these two models of skiving machines, to obtain complete and functional equipment capable of simultaneously or separately skiving the interior and exterior surface of flexible hydraulic hoses, as well as obtaining perfect preassembly of the fittings thanks to the insertion function it is provided with.

The main technical features of the SPF6 include simultaneous skiving function (interior and exterior) for hoses measuring up to 2"; interior and exterior skiving function (not simultaneous) for hoses measuring up to 3"; fittings insertion function for hoses measuring up to 3"; self-centring pneumatic clamp; a device for centring the return stroke of the piston which allows accelerating the skiving and insertion function; and a safety device which prevents the actuation of the machine when the safety casing is open.

OP Srl – Italy Fax: +39 030 3580838 Email: sales@op-srl.it Website: www.op-srl.it

Seamless steel pipe and fittings

WITH Turkey now the world's 11th largest producer of raw steel, with an annual output of 25.8mn tons, Unifit Boru Baglanti, a manufacturer and wholesaler of seamless steel pipe fittings and flanges, has an important part to play in the country's steel industry. In addition, sister company Burak Boru, a seamless carbon steel pipe stockist, supplies all Unifit's product ranges and despite unstable market periods and fluctuating prices, can provide the entire pipe range.

Unifit has added new lines to its production pool and increased 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. All Unifit products are manufactured in accordance with directive PED/97/23/EC – Annex I, Chapter 4.3.

The company is carrying out modernisation works at its factory. With new machines, the company already produces in the most common standards, such as EN, DIN and ASTM norms, with a wide product range that includes seamless and welded steel elbows, equal tees, reducing tees, conc. reducers and caps. The company has also installed forged flange machines. Once the test of flange production finishes, the company will start mass production in order to satisfy customers' needs with Unifit branded products.

After becoming established in its domestic market, Unifit Fittings extended its activities abroad, and currently exports to Western Europe, Middle-Eastern Europe, the Middle East and Northern Africa.

Burak Boru and Unifit Fittings together conduct activity on a 70,000m² area, of which 30,000m² is covered, close to highways and cargo ports, providing a logistical advantage.

Burak Boru supports many industrial sectors, such as automotive, HVAC installations, construction, and naval

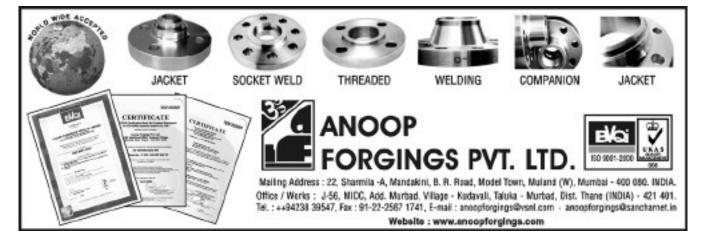
architecture, with the experience of 27 years in the steel sector.

All materials supplied are tested in the manufacturing factory and are certificated according to EN, DIN, ASTM, API and GOST norms. Burak Boru Co aims to improve the quality of service with a total quality management system, and has been certified by ISO 9001:2000.

Unifit Fittings – Turkey Fax: +90 216 593 04 09 Email: info@unifit.com.tr Website: www.unifit.com.tr

Burak Boru – Turkey Fax:+90 216 593 04 13 Email: info@burakboru.com.tr Website: www.burakboru.com.tr





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



The new ODAC 550 laser scanner

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PRODUCT RANGE ELBOWS LR SR 45 90 RETURN BENDS LR SR 180 TEES STRAIGHT & REDUCING REDUCERS CON & ECCENTRIC END CAPS

SEAMLESS FITTINGS DIMENSIONS: SIZE:1/2"~ 24" SEAM WELDING FITTINGS DIMENSIONS: SIZE: 26"~ 80" WALL THICKNESS RANGE: 2MM TO 100 MM

STANDARD: ASME: ANSI B16.9, ANSI B16.28, MSS-SP-75 DIN: DIN2605, DIN2615, DIN2616, DIN2617, DIN28011 SGP: JISB2313 EN: EN10253-1, EN10253-2

MATERIAL:

ASME: A234 WPB,A234 WP1,A234 WP5, A234 WP9, A234 WP11,A420,WPHY42, WPHY52,WPHY60,WP304,WP304L,WP304H, WP316,WP316L,WP321,WP347,WP347H,ETC. DIH: ST37.0,ST35.8,ST45.8,S235JR, P235GH,P265GH,10CRM0910,15CRM0,12CR1MOV JIS: JIS G3454 STPG370 STPG410





HEBEI XINGHAO PIPELINE EQUIPMENT MANUFACTURING CO., LTD.

Corporate Office: No.1, Qingshui Street, Shijiazhuang City, Hebei Province, 050094 P.R. China Tel: + 86-311-85983775 Fax:+ 86-311-85983552 E-mail: hebei@xinghaogd.com Web: www.xinghaogd.com

Packaging machines for tubes, bars and profiles

THE delivery programme of sema Systemtechnik includes feeding units, drawing benches, straightening machines, sawing units and testing lines, and packaging machines for tubes, bars and profiles.

The packaging units are designed for bars and tubes with a diameter range from 5 to 200mm and for profiles (hex, square, etc) from 8 to 50mm. Hot-rolled profiles and U-, IPB and special profiles can also be packed.

Round materials are usually packed to hexagon-shaped bundles. Hexagonal and square profiles are packed to square bundles, where hexagonal materials are packed on the edges. All other profiles can be packed nested depending on their cross section. Therefore these materials are automatically turned during the transport to the stacking station.

After stacking, the finished bundle is transported across out of the stacking station. The stacking station can start stacking the next bundle immediately. The bundles can optionally be strapped manually or automatically. By using automatic operation the bundles are transported longitudinally. During the longitudinal transport the bundle can be wrapped with foil at the positions where the bundle has to be strapped with steel belt. The strapping positions are pre-selectable at the operating desk. In other packaging combinations it is also possible to strap the bundles with plastic belt. Weighing devices can also be integrated into the sema packaging machines.

sema Systemtechnik also manufactures

packaging machines for the copper tube industry. These machines are often small bundling machines where 5 to 20 tubes are collected into bundles and wrapped with adhesive tape. These small bundles are then collected into large bundles, which can also be strapped.

sema Systemtechnik Sewing GmbH & Co KG – Germany Fax: +49 5744 9318 91 Email: info@sema-systemtechnik.de Website: www.sema-systemtechnik.de

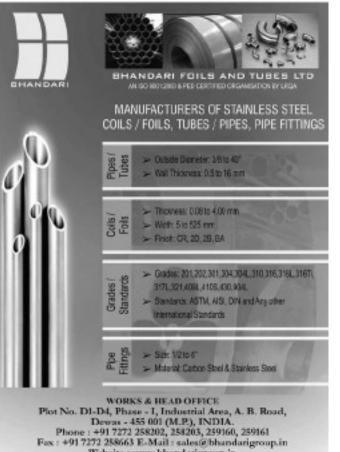




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Reika extends its range of finishing machines/lines

AFTER the successful introduction of precision multi-roll straightening machines in recent years, the Reika product range has been extended. The development of new multi-roll straightening machines for the tube industry has encouraged Reika to also develop a new machine-tool for the parting operation of tubes and bars.

The positive customer feedback of the various straightening line installations at tube mills worldwide pushed the Reika R&D activities forward. Reika, a member of the Gräbener Group, took over the assets of German competitor Procon in 2009.

Based on the existing Procon machines, and with the engineering capacity of the whole group, Reika developed a new machine line for parting tubes, profiles and bars. The Ring Saw will be available in the tube diameter range from 10 to 610mm and wall thickness from 1 to 150mm. The machine has been successfully tested in multi-shift operation at a reputed bearing manufacturer and an international group, producing tubes and tubular parts. The customers reported that the tool cost of the new Ring Saw will be 50%-70% less than conventional carbide saws, and that the performance of the Ring Saw is 20%-50% faster than conventional carbide saws.

The Ring Saw can be equipped with an automatic tool changer to reduce manual interference and to improve run time efficiency. The cut is perpendicular and almost burrfree due to the tool design and the special cutting process. The machine concept is purely electro mechanical, driven by servo motors without any hydraulics, and therefore oil-free. The cutting process is dry but can be optimised either with a mini coolant system or full emulsion system.

As the machine bed is totally oilfree and designed as a closed water draining and reservoir area, there is no need for additional foundations apart from the basic machine fixings. The chip conveyor can be directly slid into the machine bed. The machine is totally enclosed with a safety and protection cover according to a state of the art machine-tool style. This offers full operator safety and environmental protection.

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



Reika's new Ring Saw

Slitting lines for "Service Center" and "Profiles Industries"



Ultrasonic travelling probe system

UNICORN Automation (NDT) Ltd, renowned around the world for its design and supply of ultrasonic rotary heads for tube inspection, has installed its first large diameter (up to 700mm) tube test system in the Pangang Iron and Steel Company, China.

The system utilises the more conventional rotating tube/travelling probe technique, which for the customer was more cost effective than the alternative very large rotating system (URP700/S). Although testing speeds cannot match the rotary head alternative there are advantages in terms of quick change flexibility (it can cover a much larger size range with no limitation for maximum OD) and the ability to test up to 80mm wall thickness; additionally untested end lengths can be minimal (less than 50mm).

The newly designed system was installed and commissioned earlier this year, and together with several rotary systems also supplied in 2010 brings the total number of Unicorn systems now operating in various plants across China to 13. With the everincreasing number of systems in operation Unicorn has also taken steps to ensure its continued excellent after sales service with the creation of a service team based in Chengdu. Cliff James, technical and sales director of Unicorn also reported that by 2011 it is their intention to supply spares from the Chengdu office, thereby offering shorter lead times to its customers and further enhancing customer service.

In addition to the continued supply of

rotary head and travelling probe systems to the Chinese market Unicorn also plans over the next 18 months to introduce a mobile ultrasonic tube test system (intended for tube diameters up to 219mm OD) into the Chinese market primarily targeted for use at oil drilling sites or third party inspection.

Unicorn Automation (NDT) Ltd – UK

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Email: cjames@unicorn-automation.co.uk Website: www.unicorn-automation.co.uk





GLOBAL MARKETPLACE



Airbus and Boeing rejoin their pitched battle over a lucrative contract to supply refuelling tankers to the US Air Force

The European Aeronautic Defense and Space Co (EADS) on 8 July submitted to the US Department of Defense an 8,800-page bid for a \$35bn contract to supply 179 planes to the Air Force – the forerunner of a possible eventual \$100bn contract for up to 500 planes. As usual and apparently in perpetuity, the parent company of aircraft manufacturer Airbus (Toulouse, France) finds itself in rancorous competition with Chicago-based Boeing Co, which filed its paperwork for the military contract a day later.

The bids were entered slightly more than a week after a panel of the World Trade Organization ruled that Airbus had received subsidies in the form of loans from European governments at below-market interest rates. The smaller Boeing plane might be expected to promise a cost advantage. But Boeing had complained that, despite this, European support could help EADS undercut Boeing's price on the aerial refuelling tankers.

It is a critical point, since the Pentagon has made plain its intention to choose the low bidder. But that simple formula scarcely reflects the vexed history of the contract, over which the transatlantic rivals have contended for years.

Together with Los Angeles-based Northrop Grumman, EADS thought it had the prize in hand in 2008, only to have the award overturned by Washington on grounds that the judging method was problematic. Northrop has since dropped out of the running. EADS made the decision to persist, after the bidding deadline was extended and US President Barack Obama personally assured President Nicolas Sarkozy, of France, that the selection process would be unbiased.

The WTO ruling against Airbus is subject to appeal. Meanwhile, the trade organisation may find that Boeing also benefited from subsidies. An interim ruling in a countersuit filed by the European Union, expected on 16 July, has been postponed until September.

With unemployment a pressing issue in the US, a subtext of the Airbus-Boeing competition is the job-generating potential of the Air Force tanker contract. Between itself and its suppliers, Boeing has said that it would provide 50,000 jobs. EADS, which now builds its tankers in France, claims that it could create almost that many jobs by doing final assembly work at a new Airbus plant in Mobile, Alabama. An official of EADS North America also mentioned the possibility that commercial freighters might be built in Mobile. Presumably Boeing would just as soon not see this beachhead in the commercial market come to pass.

Of related interest ...

Despite the excitement generated by the competition to replace the US Air Force's Eisenhower-era fleet of refuelling tankers, many executives arriving in England for the Farnborough International Airshow (19-25 July) were probably more interested in another developing story: the downsizing of Western military budgets. With the US and Europe preparing sharp cuts in military spending as they seek to rein in budget deficits, the environment has become decidedly more challenging for military suppliers, including aircraft makers.

The outlook is brighter for makers of commercial airliners and their suppliers, as the accelerating pace of economic recovery across most of the globe will likely mean renewed demand for air travel and orders for new aircraft.

Farnborough may be a bellwether of new optimism in this sector, with the show's organisers reporting sold-out exhibition space and company registration slightly higher than the 1,400 total of two years ago. Nearly 10% of exhibitors were first-timers at the show, which attracted some 180,000 visitors.

Teaming up with Air France-KLM and Delta, Alitalia looks for more Europe-North America business

Alitalia announced from Rome on 5 July that it will join Air France-KLM and Delta Air Lines, of the US, in their alliance for cost- and revenue-sharing on transatlantic routes. The expanded joint venture, which represents perhaps 26% of total transatlantic capacity and annual revenue of more than \$10bn, covers flights between Europe and North America, between Amsterdam and India, and between North America and Tahiti.

While this longer reach is impressive, the Alitalia announcement strongly suggests that the interest of the new member of the joint venture lies mainly with Europe-North America business.

After noting that Rome joins Amsterdam, Atlanta, Detroit, Minneapolis, New York-JFK, and Paris-CDG as a core hub of the alliance – "with additional transatlantic service from Cincinnati, Milan Malpensa, Memphis, and Salt Lake City" – Alitalia made a ringing pledge to customers of seamless airline-to-airline connections between points in North America and the European Union.

Air France-KLM already holds a 25% stake in Alitalia. Rocco Sabelli, the chief executive of the Italian airline, has rejected speculation about an outright acquisition of the company by its new French partner.

Alitalia should be prepared for some brisk competition. On 14 July, British Airways, American Airlines, and Spain's Iberia Airlines obtained antitrust clearance from the European Union that strengthens their Oneworld alliance in the transatlantic ticketing contest.

The European Commission, the union's competition monitor, said that Oneworld had satisfied its concerns and that it was dropping an investigation it had opened in April 2009. The EC also approved the merger of British Airways and Iberia.

> Oneworld carriers, including Finnair and Royal Jordanian, can now take fuller advantage of the "Open Skies" agreement between the US and the European Union, which liberalises transatlantic aviation. Joaquin Almunia, the EC competition commissioner, said in a statement that the EU decision will enable the Oneword members "to put in place the transatlantic alliance they have long aspired to

GLOBAL MARKETPLACE

while ensuring that around 2.5 million passengers continue to benefit from a choice of frequencies and competitive prices."

The British carrier Virgin Atlantic Airways took a contrary view, deeming inadequate the concessions made by Oneworld to win EU antitrust clearance.

The three carriers agreed to cede some landing and take-off slots for routes between London and Dallas, Boston, Miami and New York, as well as to allow wider access to their frequent-flyer programmes on those routes. The commitments are for 10 years.

Trade

Peru actively cultivates its Eurozone ties

A free trade agreement between Peru and the European Union, ratified 18 May at the EU-Latin American Summit in Madrid, addresses issues beyond trade. It also provides better guarantees for European investments in Peru, with its attractive mining potential. Member-nations of the EU already account for the greater part of Peru's foreign investment; together with Colombia, Peru since 2008 has been engaged in discussions with the EU to liberalise trade and investment restrictions.

As noted by Oxford Analytica, Peru by its action in Madrid "broke with the understanding that any new agreement involving the EU would be negotiated collectively" with the countries of the Andean Community of Nations (CAN). Peru and Colombia have shown themselves much more open to economic liberalisation than CAN partners Bolivia and Ecuador. ("Peru Embraces Foreign Investments," 25 May)

The deal with the EU must be ratified in the European Parliament. Peru has reached a similar agreement (at the margins of CAN) with China, and is negotiating trade and investment deals with other Asian countries.

Another noteworthy trade agreement is that between China and Taiwan, signed in June without much fanfare but described by the Taiwanese information minister as a giant step toward overcoming his country's economic isolation. At a 13 July luncheon in New York, sponsored by the Carnegie Council and the Overseas Press Club of America, Johnny Chi-Chen Chiang said that trade is Taiwan's lifeline, and that the government at Taipei now plans to hold talks with Taiwan's other trading partners in a push for further integration into the global economy.

Tensions between Taiwan and China have eased in recent years under the policy of rapprochement instituted by Taiwanese president Ma Ying-jeou. The trade deal, which slashes tariffs on a wide range of products, is another sign of smoother relations across the Taiwan Strait.

According to the Government Information Office of Taiwan, China is Taiwan's largest trading partner, with two-way trade in 2009 accounting for nearly 29% of Taiwan's total external trade and 41% of its exports.



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GLOBAL MARKETPLACE



ArcelorMittal mulls appeal from a stiff EC fine for practices in restraint of trade

Following the imposition by the European Commission of \$660mn in fines for anti-competitive practices on 17 European manufacturers of prestressing steel, ArcelorMittal Group said that it would consider its options, including appeal from the EC decision.

The world's biggest steel producer received the highest penalty – \$339mn – for the part ascribed to ArcelorMittal companies in a cartel characterised by the EC as exceptionally long-running (18 years) and wide-ranging.

The EC based its decision, announced 30 June, on findings that a cartel in the prestressing steel market ran for the period 1984-2002. As reported by Reuters, its existence was revealed by Germany's DWK/Saarstahl, which sought and received immunity from any penalty under the commission's leniency policy in instances of this kind.

Luxembourg-based ArcelorMittal sought to consign the period in question to ancient history, noting that the group conducts a strong compliance programme across all its subsidiaries to ensure that business activity comports with legal and ethical standards. ArcelorMittal in fact won a reduction in its fine for its cooperation with the EC investigation. But the fine was also increased on grounds that two subsidiaries, ArcelorMittal Fontaine and ArcelorMittal Wire France, previously were fined by Brussels for participation in two other steel industry-related cartels.

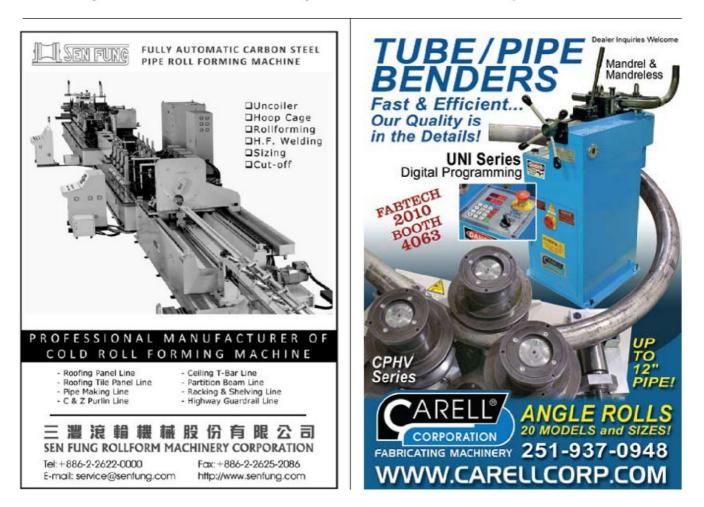
While 14 of those companies penalised by the EC made no immediate comment, Voestalpine, of Austria, denied any involvement in the prestressing steel cartel and promised legal action to vacate its \$28mn fine. Finnish steel maker Rautaruukki disclosed no specific plan, but observed that appeals from EC decisions may be filed with the Court of Justice of the European Union, in Luxembourg.

Elsewhere at ArcelorMittal . . .

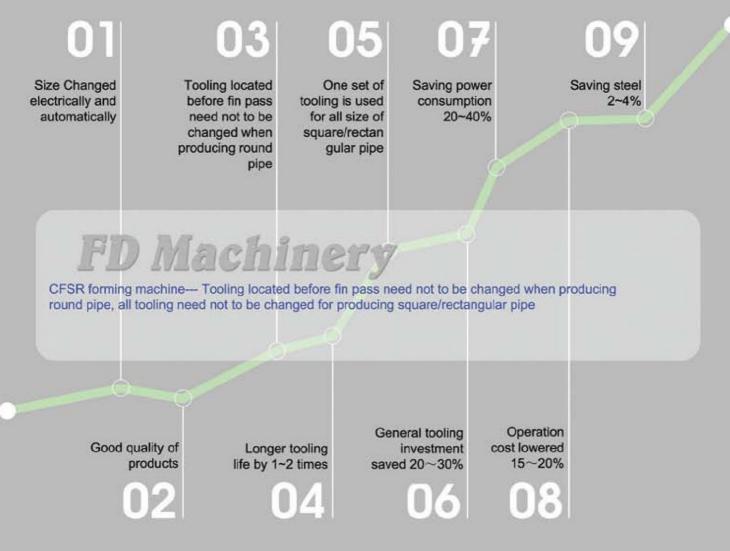
The Luxembourg-based steel maker has said it intends to expand its iron ore capacity by two-thirds – from 60 million to 100 million metric tons – within five years to protect against price volatility. In a 22 June interview with *Bloomberg News*, in New York, CEO Lakshmi Mittal said, "Vertical integration has always been our strategy and now it gets even more reinforced."

That "reinforcement" derives from the higher prices steel makers are paying this year for iron ore and coking coal, on rising demand in China. They also face having to buy iron ore from the three biggest exporters – BHP Billiton Ltd, Vale SA and Rio Tinto Group – on the basis of quarterly contracts instead of fixed-price, annual accords.

Mr Mittal has made no secret of his opposition to quarterly pricing, which he warned could be "dangerous".









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GLOBAL MARKETPLACE

Earlier in the day of the *Bloomberg* interview he told a Steel Success Strategies conference, "The reality of quarterly pricing means raw material costs will increase over the remainder of this year."

Together with Posco, of South Korea, ArcelorMittal is among a number of international and domestic investors making huge commitments to projects in the Indian state of Karnataka. At an early June meeting of business leaders in the state capital of Bangalore, Lakshmi Mittal announced that his company planned to invest billions of dollars in a steel and power plant in Karnataka. Posco signed a deal to set up another power plant in the state.

But Habib Beary, reporting from Bangalore for *BBC News* (4 June), noted that land acquisition for industrial purposes has stirred massive protests across India. He recalled that agreements worth billions of dollars were also signed during a similar event in 2000, but actual investments turned out to be much lower than the amounts pledged. Mr Beary wrote, "That was partly because the state government's plan to acquire farmland for industry was bitterly opposed by farmers."

If BS Yeddyurappa has his way, the plans for development will succeed in spite of opposition. Karnataka's chief minister – describing Bangalore as a "favourite global destination" for multinational companies – declared, "We will cut the red tape and spread the red carpet for investors."

In a closely watched case, Canada and US Steel lock horns over 'broken promises' on employment and production

After failing to block a lawsuit by the federal government of Canada that could force it to sell its Canadian operations, US Steel Corp on 29 June filed an appeal to a Federal Court ruling upholding Ottawa's powers to go after foreign companies on grounds of failure to live up to promises.

The lawsuit, brought last year, alleges that Pittsburgh-based US Steel violated two of 31 "undertakings" regarding production and employment levels, made to gain Ottawa's approval for its \$1bn-plus acquisition of Stelco Inc (Hamilton, Ontario) in 2007. In clearing the Stelco takeover, the government cited job protection as a "net benefit" that would thereupon accrue to Canadians.

Specifically, it is claimed that US Steel scaled back production and laid off or retired 2,400 workers at two former Stelco plants in Ontario. US Steel blamed weak steel demand for its decisions. But to Ottawa, apparently a strict constructionist in these matters, a deal is a deal.

The judge who issued the ruling rejected the claim by US Steel that its rights were violated by provisions of the Investment Canada Act, which gives Ottawa the power to oversee foreign investment. Under the act the government has authority to ask the courts to fine US Steel up to C\$10,000 (US\$9,700) a day until commitments on job protection are honoured.

For its part, US Steel argued that the size of the penalty – which it termed a "King Kong fine" – was one of the ways in which the act violated its rights.

Law reporter Jeff Gray of the Toronto *Globe and Mail* noted the view in local legal circles that the spiralling fight, and the initial Federal Court ruling upholding the Investment Canada Act, should prompt foreign companies shopping for acquisitions in Canada to take their undertakings – promises to Ottawa – more seriously.

"For the longest time, it was always an afterthought," Toronto-based lawyer Brian Facey, who has helped major foreign investors navigate the Investment Canada Act, told Mr Gray. "It was a condition put in the various merger agreements that you would have to get the various approvals. But people didn't focus that much on Investment Canada. You knew you'd get through it." ("US Steel Appeals Court Ruling in Stelco Case," 29 June)

Now, Mr Facey observed, foreign buyers and Canadian vendors alike are seeking special covenants in merger agreements that spell out the likely effects of undertakings. In his view, foreign buyers would do well to think carefully about a possibly souring economy before committing to certain levels of employment and the like. As Mr Facey put it to the *Globe and Mail*, "The main point for foreign investors is you bear the risk of any unforeseen developments – because the [Canadian] government can really hold you to it."

In brief . . .

Having gained the support of four of the five labour unions at the Fiat plant in Pomigliano, near Naples, company chief Sergio Marchionne said on 9 July that Fiat would invest \$875mn to bring production of its Panda model back to Italy from Poland. In a June referendum, some 60% of the 5,000 workers at Pomigliano, Fiat's least productive factory, accepted the company's proposals for additional shifts, shortened sick leave, and curtailment of strikes as their contribution to the transfer. Fiat currently produces the Alfa Romeo – the first "supercar" – at Pomigliano.



Germany's Europipe would share the risk of rising raw materials costs with pipeline builders

The Russian natural gas producer Gazprom, lead investor in the \$9 billion Nord Stream natural gas line linking Europe to Russia, is building pipelines that bypass countries such as Ukraine, where price disputes have disrupted flows of the fuel to Europe.

According to the Brussels-based producer group Eurogas, declining output within Europe means the region must look elsewhere to fill its needs beginning in 2015; and that by 2030 about 70% of its requirement will be served by imports.

This suggests a busy period ahead for pipeline builders in the region. If proposals made by Europipe, a German supplier of steel pipes to Nord Stream, are adopted, companies like itself would share with customers such as Gazprom the risk of swings in raw materials costs. The suppliers would set a cap, to which the price to clients could rise with any increase in raw materials costs. The customers would be refunded if costs fall.



4

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Let's Think about the Day after Tomorrow



GLOBAL MARKETPLACE

Prices for iron ore rose about 90% in the April-June quarter, according to the German Steel Federation. Salzgitter, the German steel maker that holds 50% of Europipe, told its shareholders in June that it will not make any money on the second of two tenders for the Nord Stream link under the Baltic because of higher input costs.

"We can't take all the risk," Europipe CEO Michael Graef told Nicholas Comfort of *Businessweek* at the pipe maker's Muelheim headquarters. "We're close to concluding an agreement with a large pipeline operator on a price-adjustment clause." ("Europipe Nears Landmark Accord on Cost Risks," 23 June)

With the spill of oil into the Gulf of Mexico apparently contained, a preliminary look at the BP compensation effort

Good news was in short supply for almost three months after the 20 April explosion on the Deepwater Horizon rig in the Gulf of Mexico, and the sinking of the rig on 22 April. But on 17 July a BP vice-president, Kent Wells, said in a conference call with reporters, "We're watching every piece of data. We feel more comfortable that we have integrity."

When Mr Wells spoke, no oil had visibly leaked out of the British company's blown-out Macondo well since a new cap was sealed two days earlier; and, he said, the pressure in the well was high enough to confirm a tight seal.

Urged by US President Barack Obama, BP executives agreed to create a \$20bn spill-response fund to help pay for cleanup and claims. In what might be termed a breather between the capping of the well and a full reckoning of the effects of the largest oil spill in US history, BP's early remediation effort in the affected areas of the Gulf Coast is of some interest.

The information that follows is abstracted from the article "Where BP's Money Is Landing," written by Amy Schoenfeld and published in the *New York Times* on 2 July:

Since May, BP has paid just under a third of the more than 90,000 claims it has received from businesses that rely on the Gulf for their revenue, with the cheques totalling more than \$144mn. About 80% of the payments have gone to self-employed workers. Fewer large businesses have been compensated because their claims are more complex and take longer to process;

So far, payments have been fairly small, averaging about \$2,500 a month for a deckhand or \$5,000 for a fisherman. BP estimates that about 13,000 people are receiving pre-payments, often 30 days in advance;

The total bill is sure to grow exponentially, with more than 2,000 applications coming in each day. In addition to the \$20bn pledged toward cleanup and administrative costs, BP has also set aside \$100mn to assist oil rig workers who cannot find work because of the US moratorium on drilling in the Gulf;

Even so, federal, state, and local officials say the BP cheques have been too small, and the company has not disbursed money



quickly enough. Lawmakers say they are also concerned that the system of tracking claims has not been transparent. BP says it is doing the best it can to keep up with the sheer volume of claims, which it says it could not have anticipated when it wrote the first cheque on 3 May.

"I'm not sure anybody in this kind of situation meets all expectations, but we're trying," Patricia Wright, a BP spokeswoman, told the *Times*.

Lawmakers expressed optimism that improvements would come in August, when Kenneth R Feinberg, the lawyer known for handling compensation claims for the victims of the 9/11 terrorist attacks on American soil, takes over BP's claims system.

Ms Schoenfeld wrote, "Mr Feinberg, who was selected by the Obama administration and BP and will be paid by BP, will work closely with a team already contracted by the oil company. The group consists of some 950 claims adjusters in 35 offices across the region."

She noted that one of Mr Feinberg's biggest challenges will be to determine the eligibility of people requesting compensation for indirect effects of the spill.

At a Congressional hearing the previous week, a legislator from Georgia asked Mr Feinberg how he would compensate homeowners for depressed real estate values along the shores of the Gulf.

Mr Feinberg responded, "On the one hand, those people are suffering. They deserve some help. On the other hand, there's not enough money in the world to pay every homeowner wherever they live on the Gulf Coast who says my property is down because of the oil spill."

Dorothy Fabian, Features Editor (USA)



FABTECH is a premier showcase of the technologies of keenest interest to the tube and pipe industry, among others. For its provision of an environment that facilitates and enhances business relationships, it inspires exceptional loyalty in the technical people and buyers and sellers who come together under its aegis, year after year.

FABTECH 2010 at the Georgia World Congress Center (2-4 November) is again set to reward expectations – even outsize ones. Some 22,000 visitors will be in Atlanta for the world-class conference and concomitant exhibition, including a full programme of educational sessions, seminars, and technical tours. Over 1,000 companies will utilise over 350,000 square feet of floor space to enable careful evaluation of state-of-the-art machinery, equipment, and ancillaries.

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Oto Mills SpA	

Overton Carbide Tool	3666
Pangborn Corp	
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Thermatool Corp	
Thermo Scientific Niton Analyzers	
Tools for Bending	3162
Tri Tool Inc	7155
Trumpf Inc	
Tube & Pipe Technology Magazine / ITA	3366
Tube Bending Concepts Inc	3055
TW Metals	3669
Unist Inc	1615
Universal Tube & Rollform Equipment Corp	. 3363
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The Arc Machines Inc Model 2 is a series of specialised durable, high precision components that are custom-configured for a specific set of application requirements.



The Model 2 is used in production applications where orbital welding may be impractical. The Model 2 "building block" approach uses a series of standardised motion stages for functions such as arc voltage control, torch oscillation (weaving), onboard wire feeder and travel. Up to eight motion axes of movement can be integrated into a welding system and controlled by the AMI Model 415 power supply, including positioners, side beams, welding lathes, seamers and rotators.

Website: www.arcmachines.com



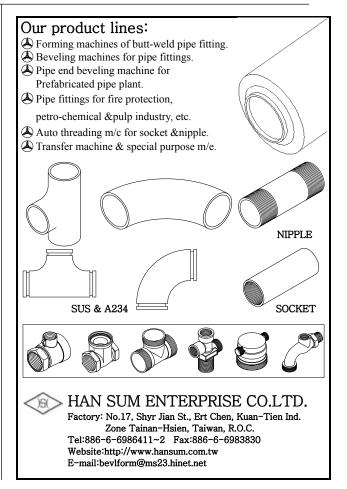
Ercolina says its new top bender model TB100 is ideal for producing consistent quality bends in large diameter pipe, tube, squares, rectangular, solids and other profiles.

Interactive touch screen control offers easy access to auto and manual operating modes, programming, system diagnostics and multiple language capability with programmable bend angles of 0° to 180° – up



to 12 bends per program; unlimited program storage available with USB; independent springback compensation for each bend; engineered heavy-duty steel gear case accepts bend profiles with CLR to 16"; class 3 safety hand-held remote controls bend, return and emergency stop functions; autoload sensing improves bend productivity while protecting machine components.









The machine bends to a centerline radius as small as 2D without a mandrel and there are no hydraulic components, reducing cost and improving bend accuracy.

The company is also set to unveil its Ercolina[®] GB100 S CNC 6, a tube bending machine that is an intelligent choice for the most demanding requirements for heavy tube and profile bending in industrial sectors such as shipyards, petrol-chemical, agricultural and heavy carpentry.

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Combilift, which supplies four-way forklifts, will showcase many of its models at FABTECH 2010.

The recently unveiled CB6000 will bring many advantages to fabrication companies who today may be using standard conventional counter-balance forklifts, reach trucks, side loaders, or electric four-

The Combilift range includes the CB6000 way forklifts. This new 6,000lb capacity multi-directional COMBI-CB is available in lift heights up to 25ft and it can be used indoors or outdoors.

The C6000 offers customers even more solutions for handling long and awkward loads, particularly in confined warehouse and manufacturing plants. It can also operate in semi-rough terrain and harsh environments such as snow.

The C10000XL model is ideally suited for steel yards. The XL model has larger wheels and higher ground clearance than traditional models, allowing it to manoeuvre on especially rough terrain with ease and increased comfort for the operator.

The C6000ST is designed for flexible indoor and outdoor operation and has a 6,000lb lift capacity. The Combilift GT sideloader range has been on the market for five years, and with the addition of the ST takes the narrow aisle concept in a multidirectional twist.

Website: www.combilift.com

Diamond Ground Products USA Booth 6455

The tungsten electrode experts at Diamond Ground Products are offering the guidebook, 'How to Correctly Grind, Cut & Prepare Tungsten Welding Electrodes' on the company's website at no cost for a limited time.

This guidebook was created to provide the manufacturing engineer with a general reference for selecting the most appropriate tungsten material and emphasises the importance of a correctly prepared, ground and cut tungsten electrode. Other topics include safety issues surrounding the use of thoriated tungsten, and alternatives to this common yet radioactive tungsten material.

Diamond Ground Products is dedicated to the improvement of weld quality and welder productivity and maintains a reputation as the industry leader in tungsten and tungsten preparation.

Its management philosophy is to provide quality product and receptive service that exceeds even the most stringent expectations.

Website: www.diamondground.com

EH Wachs USA

The new EH Wachs EP 424 with Speed Prep Autofeed System, an ID mount end prep machine tool designed to bevel, compound bevel, J prep, face and counterbore pipe, fittings and valves will be introduced at the show. With Speed Prep, customers set the bevel angle and land that works best for their application.

Booth 7011

Speed Prep feeds simultaneously in the axial and radial planes, and machines any bevel or compound bevel without templates, incline tool slides or work stoppage. The EP 424 is powerful enough to form tool from 4" to 16" (DN100-400) through Schedule 160, and single point from 4" to 24" (DN100-600) up to a 6.5" (165mm) wall thickness.

EP 424 features:

• Set your exact weld prep without accessory templates or external tool slides

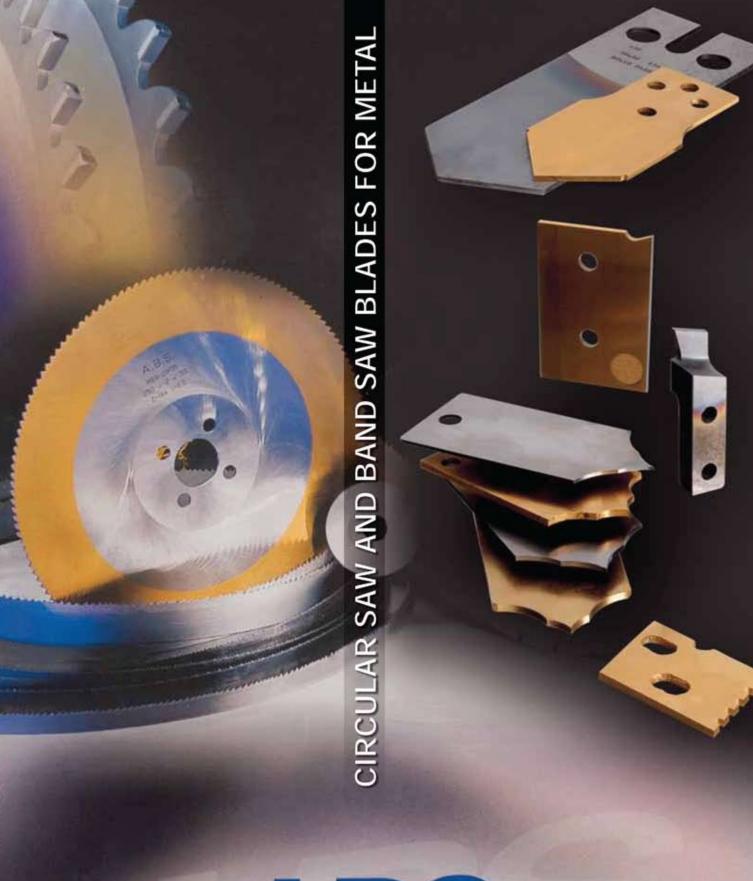
• Fully modular construction for fast, easy, one man set-up and operation

• Quickly produces a ready to weld, lathe quality prep with no heat affected zone

The new EH Wachs EP 424





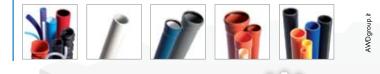




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LOREB GROUP





Pipe Lines

New counter-rotating twin screw extruder Series "2B 110 Year 2010" for large diameter PVC pipes



PIPE COMPLETE EXTRUSION LINES

Bandera designs and manufactures complete lines for the production of HDPE, PP and PPR, PVC, PEX, PP/AL/PE pipes barrier and multilayer pipes (PEX-EVOH-PE) for building industry, telecommunication, irrigation, sewage and draining applications, and the production of different technical piping systems for hydro-thermo-sanitary and industrial applications, such as pneumatic and hydraulic conduits.

Bandera supplies innovative know-how and technologies of the latest thermoplastic material processing using specific innovative calibration dies designed with the help of the advanced melt rheological flow simulation software programs. Bandera supplies extrusion units for PVC, HD/LDPE and PP corrugated and spiral pipes, as well as complete extrusion plants for composite multilayer pipes with aluminium inner core (PP AL PP).

Bandera production lines are provided with automatic systems for the final product quality control ("loss-in-weight" gravimetric dosing systems of raw material, in-line thickness control weight per meter control) and a computerized supervision control simple to learn and easy to use.

Bandera designs since 20 years and manufactures complete extrusion lines for steel pipe coating mainly for outer coating, with thermoplastic material (PE or PP and adhesive material base), of steel pipes for various medium/large piping systems.



Innovative in line automatic haul-off and cutting system





Newly designed dies for HDPE and PVC (also Foam layers) pipes

New counter-roating twin screw extruder L/D 28 – sizes from 55 to 170 mm \oslash

New single screw extruder L/D 38 – sizes from 50 to 300 mm Ø

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 Available Speed Prep and Form Tooling/Facing versions, in both hydraulic or pneumatic drive EH Wachs s a global manufacturer of portable on-site machining tools, subsea and valve turning equipment. Its equipment is used to cut and bevel pipe, turn and exercise valves with extended reach machines, operate valves & software in water distribution systems, decommission downed platforms and accomplish deepwater repair projects. Custom machine design and manufacturing is available.

Fontijne Grotnes

Booth 3647

Fontijne Grotnes has developed over the years into a specialist in the design and construction of pipe-ends and full-length pipe expanders for the pipe industry.

The Fontijne Grotnes Expander offers a constant, reproducible process regarding diameter and mechanical properties. The design maximises the radial forces in order to obtain maximum output in relation to pipe dimensions. The pipe expander process makes the welding of the pipeline in the field, even for cut pipe sections, much easier. The straightening system is a special development of Fontijne Grotnes, which is especially designed for small pipes ranging from 16" to 30". This system controls the straighteness of the pipes in all directions within ½-API- and DNV-standards.



In the metal forming industry Fontijne Grotnes designs and builds production lines for a vast range of markets, including largescale producers of domestic appliances such as dishwashers. In addition, Fontijne Grotnes is involved in a variety of other industrial processes in the aerospace and forging and wind power industry.

Website: www.fontijnegrotnes.com

Haven Manufacturing USA

Booth 3271

The Haventrak[™] utilises the speed and precision of the dual-blade shear cut-off head combined with a Utrak[™] length control system to deliver accurate, high quality, dimple free cuts on the fly. This innovative approach will provide improved production rates with increased accuracy at up to 250 FPM.

Haven Manufacturing, Brunswick, GA has gained worldwide acceptance by producing high quality cuts on a variety of tubular shapes and materials utilising the dual-blade shearing method.



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85



 Universal Controls Group, Ohio developed the Utrak[™] length control system blending precision electronics and simple mechanics to provide an accurate yet rugged solution to length control needs.

Haventrak[™] integrates two of the most recognised names and know-how in the tube cutting industry to give the user improved quality and accuracy.

Website: www.havencut.com

НМТ	
USA	Booth 3163

HMT says it is revealing its most exciting ever lineup of tube bending technology at this year's FABTECH.

It says its Unison all electric 40mm Multi-Stack is one of the most environmentally friendly benders available with its high precision, state-of-the-art control system, low heat during operation, and minimal noise.

The Horn Metric Series CNC45EMR allelectric CNC tube bender has a rotatable head that combines left and right hand bending with triple stack tooling, which is capable of push rolling and draw bending all in one machine.

The HMT #4CNC-LP bender is a heavyduty CNC bender with a low-to-the-floor load height. This puts the tube at a comfortable and ergonomically correct height for the operator without the use of work platforms. The machine is equipped with direct acting programmable clamp and pressure die to reduce set-up time as well as Y axis boost and a retractable wiper die.

HMT CAD File Import will be demonstrating the ability to import Step files and other CAD files directly into the bender control, simulating the part on the screen and then forming the part on the machine. The company claims this unique ability allows the part to go from design to production faster than traditional methods.

Website: www.hornmachinetools.com

Interlaken	
USA	Booth 1317

Interlaken Technology designs, engineers and

gy Corporation r and manufactures



Interlaken's hydroforming technology

servo-controlled production equipment with sophisticated controls and monitoring software.

The company will exhibit hydroforming press systems for use in production or materials research applications.

The computer-controlled hydraulic press



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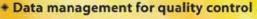
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 systems feature data acquisition that uses a high-pressure liquid to hydroform materials.

The company's hydroforming press systems are designed for both tube and sheet hydroforming applications. Gas forming systems are also available.

The hydroforming press systems are equipped with Interlaken's UniPress control system for reliable and precise control over the hydroforming process.

Easy to use, Windows-compatible interface software enables users to build motion and force profiles designed to fit specific forming needs. The multi-channel, closed loop control system is easily programmed to handle event as well as time dependencies.

The control system offers dynamic mode switching, which enables the user to switch between a variety of feedbacks such as force, position, internal pressure and other system variables.

Hydroformed parts are stronger and lighter, due to structural integrity and fewer welds or add-on pieces.

In addition, costs are reduced and time is saved by eliminating secondary operations, reducing scrap, lowering material and manufacturing costs, and increasing design flexibility. A dual operation mode provides added flexibility. The learning/research mode determines tool and die specifications, measures and optimises processes, and programs forces and motions. The production mode runs the optimised profile while monitoring and recording process variables.

Website: www.interlaken.com

Klingelhofer Corporation USA Booth 5061

The Kasto Model KASTOwa-90R/S automatic sawing machine in combination with the RSA Model NN 1000A wire brush de-burring machine will be shown at the Fabtech 2010 International Tool Show by the Klingelhofer Corporation as well as its other new offerings.

This sawing and de-burring system is designed for tubes and shapes up to 3½" in diameter. It is equipped with a length gauge and a tilting support table for long cut-offs. It also includes an automatic loading table, pusher type stock feeder, trim cutting,

remnant end separation, and variable blade speeds up to 780sfpm by means of a frequency controlled motor.

The newly developed saw carriage enables the efficient use of notch grind, TiCN-coated cobalt blades for extremely high cutting rates. Vertical and horizontal clamping on the in-feed side and horizontal clamping on the discharge side assure square and burr-free cuts.

The heavy-duty tube and bar end deburring machine is loaded automatically by means of an interlinking cut piece transfer system. Burrs are simultaneously removed from both ends with tubes being de-burred on the ID and OD. Interchangeable support rails are available to rotate rectangles or shapes. The machine has a simple horizontal and vertical adjustment of the brushes as well as lateral adjustment for the cut piece length. Standard sawing and de-burring lengths of 40", 80" and 120" are available.

Website: www.klingelhofer.com

Read this magazine online: www.read-tpt.com





Magnatech USA Booth 7543

Magnatech's Pipemaster is used for multipass orbital pipe and boiler tube welding.

The Pipemaster has an autoranging input of 220 to 480 VAC and a 200amp output, and will operate weld head models incorporating controls for torch rotation, wire feed, torch oscillation, and arc voltage control functions.

The company says its orbital multi-pass pipe welding systems can potentially provide productivity improvements but in the past potential users had expressed concerns with the need to program the equipment for each pipe size and material, and at the learning curve necessary for their welders to program a CNC tool.

Now, the new Autoprogramming mode allows operation without programming training. An inexperienced user enters pipe OD, wall thickness, and material and a weld program will automatically be generated. This can then be run, and if not perfect, can be modified in two ways. Using Edit mode, any parameter can be changed at any point during the weld. Using Scaling mode, certain

parameters (such as rotation spread, or amperage) can be changed by a percentage for the entire program. The power source stores up to 100 weld programs.

Website: www.magnatechllc.com

Manchester Tool & Die Booth 4091

USA

Manchester Tool & Die offers standard and custom-built tube end forming machines with OD capacities ranging from 3/16" to 3" and a research and development lab to help meet customers' specific applications.

Manchester Tool & Die will be highlighting its full line of tube-end forming machines at the show, as well as Aristo Machines. Tubeend forming systems (machines and tooling) for automotive and truck, construction, HVAC, plumbing and other markets, and BKB Manufacturing machining and tube end forming capabilities for machining centres, lathes, saws, mills, MTD equipment and EDMs will also be featured.

Manchester Tool & Die's manufacturing facility is available for customers' machining needs such as CNC and manual turning, CNC and manual boring, CNC milling, grinding and wire EDM. Steel fabricating services are also available.

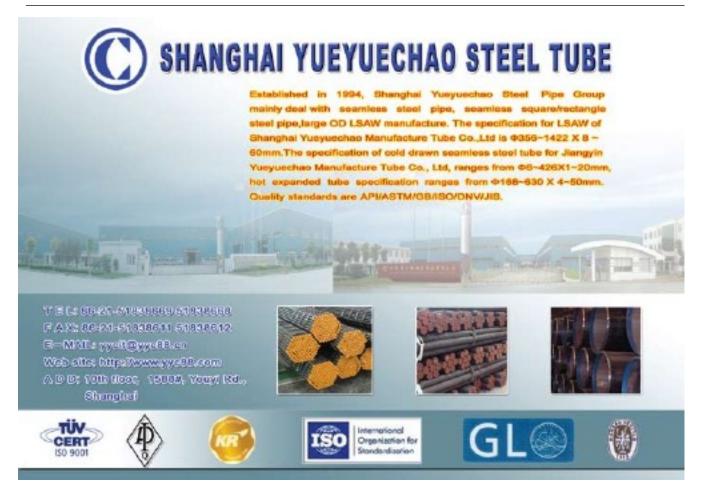
Website: www.manchestertoolanddie.com

Oto Mills SpA Italy **Booth 3257**

THE Oto 40616 ETC (easy tool change) tube mill includes Flexible Forming (FFX) as conceived by Nakata. Forming rolls need not be changed, but simply adjusted according to recipes as a function of tube diameter.

Oto Mills' easy tool change tube mill





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 Finishing and sizing sections are designed with interchangeable 4-roll stands.

The tooling change has been conceived to minimise change-over time and operator involvement throughout the tube mill. Using existing forming concepts, Oto Mills has automated the tooling pick and set-up operations.

In the finishing and sizing, the quick change-over does not occur by replacing the entire stand (as typically executed on smaller mills), but by swapping the assembly including rolls, shafts, bearing blocks and side rolls from the top of the stand.

All driven stands are mounted to the mill base and universal joints are provided with an automated engagement/disengagement hydraulic system from the mill shafts allowing for the roll, bearing block, shaft, and side rolls (if provided) to be moved in and out of the stands, which are designed with an opening at the top to enable the change-over operation via crane.

Jacks and absolute encoder for top shaft adjustment are part of the removable assembly. Adjustments on the roll, shaft and bearing block assembly are performed through electric gear motors and absolute encoders. The entire change-over operation is automatic, so that operators are simply involved in the lifting of the roll assembly in one motion. The Oto 40616 ETC tube mill comes with a second set of shaft, bearing block and side roll assemblies to enable off-line roll changeover. The customer may also choose to purchase extra shafts and bearing blocks, which can be permanently assembled to the rolls for even faster roll replacement. A special tool designed to help off-line roll change-over is also offered.

Website: www.otomills.com

Pyrer Technology GroupSwitzerlandBooth 1433

Beckwood Press Company will demonstrate their new active leveling control system, equipped with the latest in 4 corner parallelism and HMI control features at the show. Beckwood, in conjunction with Pryer Technology Group (PTG), will also exhibit their new 500 ton Triform Sheet Hydroform Press Model (16-5BD) and their latest DJ Benchtop Presses.

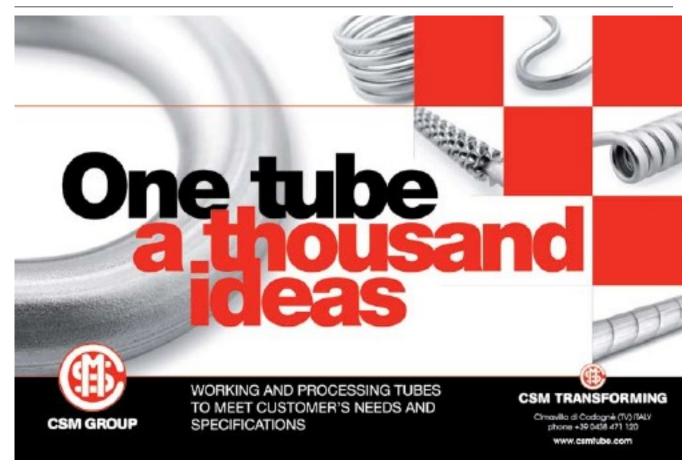
Beckwood will present the latest in hydraulic press and sheet hydroform technology. It will showcase a wide variety of hydraulic and hydroform press examples, along with a drawn part exhibit of products. A special focus on presses for compression molding and off-center loading will be featured with the hydraulic display at the Fabtec Show which is at the Georgia World Congress Center in Atlanta, and will be held from 2-4 November 2010.

The Beckwood Press Company is a leading hydraulic press and automated systems supplier, located in St Louis, MO and founded in 1976. It offers a variety of hydraulic presses (2-2000+ tons), Servo Motion Presses (2-150+ tons) and standardised benchtop presses (3-40+ tons).

Beckwood manufactures triform sheet hydroforming presses for Pryer Technology Group (PTG) and hot stamping presses for Hasting Manufacturing. These presses can be made for virtually any industry, with an unlimited amount of capabilities and options.

Pryer Technology Group offers the Triform family of hydroform presses, developed by PTG, which utilises the latest computerised engineering software, modern hydraulics and advanced CNC styled controls.

PTG has created compact Hydroforming Presses, focused on the Sheet Hydroforming Industries. A wide range of material, bladder sizes and >>





pressure sizes can be utilised with or 4 4 4 without a punch for deep or shallow draw applications.

Email: info@beckwoodpress.com



Solar Atmospheres USA **Booth 8071**

For more than 25 years Solar Atmospheres has been established in the vacuum thermal processing industry.

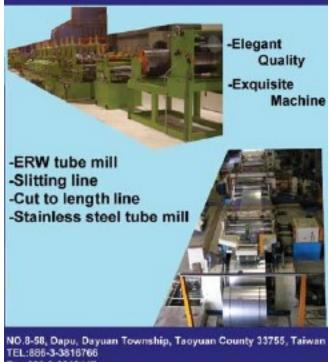
The company combines the latest technology with experienced professionals to create solutions for the needs of the tube and pipe industries.

Its capabilities include over forty vacuum furnaces from R&D to the world's largest, large furnaces 6, 8, 10, 12, 24 and 36' lengths, loads up to 150,000lb, material handling capability with lifting capacity up to 20 tons, high temperature processing up to 2,500°F/1,371°C, precise temperature monitoring of parts during process, lab furnaces for cycle development and small parts, furnaces up to 80" diameter, 80" high, 36' long, non-destructive testing and metallurgical and process consultation.

Solar Atmospheres also offers various other services including bright annealing,



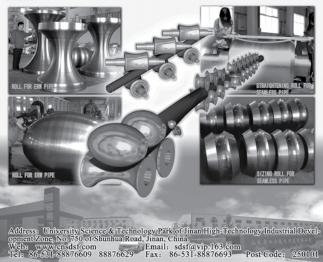
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normalising, solution treating, hardening, homogenising, precipitation hardening and metallurgical testing.

Contact Solar Atmospheres for heat treating services and visit them at Booth 8071 for more information.

Website: www.solaratm.com

Thermatool CorporationUSABooth 3147

Visitors to the Thermatool stand will have an opportunity to see in operation one of the tube and pipe industry's benchmark products – the Thermatool HCT series solidstate HF welder, fitted with industry proven HAZControl Technology[™].

Other new Thermatool products on display will be:

The latest WeldScan thermal digital imaging technology, designed for precision monitoring of up to four temperature points in the weld vee.

A new and highly innovative Impeder Monitoring system, introduced to the market in order to maximise welding efficiency. Smart Annealing systems that provide operators with greater, repeatable control over both temperature and positioning of multiple heat stations during the seam annealing process.

The very latest in system upgrades on Alpha Flying cut-off technology.

New developments in quench and temper technology for bar, pipe and tube in addition to HF welded engineered structured section (ESS) mills, bright and dull annealing systems for stainless steel and speciality inline coating applications.

Visitors to the Thermatool stand will have an opportunity to discuss all of their tube and pipe welding, cutting and heating requirements with a number of highly experienced applications specialists.

Website: www.thermatool.com

Tube & Pipe TechnologyUKBooth 3366

TUBE & Pipe Technology magazine is the international trade magazine for the tube and pipe industries, published six times a year in English.



TPT covers the production, processing and machinery for tube and pipe. Each issue of the magazine provides coverage of essential industry news,

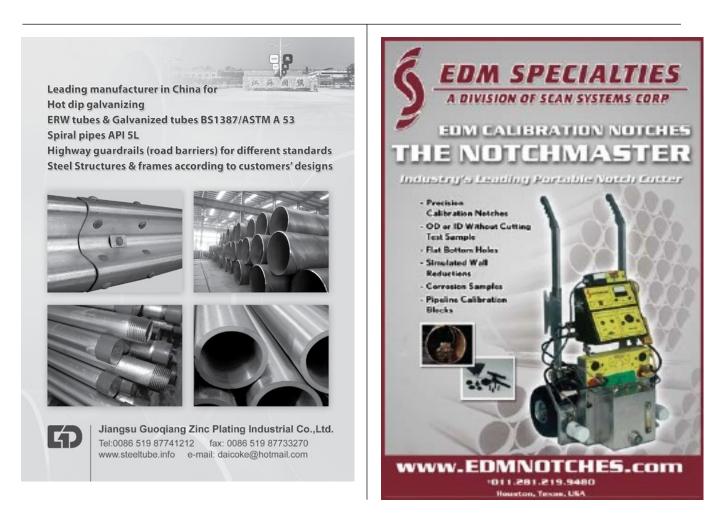
technology and product updates.

It includes regular topical columns, a variety of technical features and in-depth articles highlighting the very latest scientific information and manufacturing solutions.

The magazine has a loyal worldwide readership of more than 13,500, and is distributed to buyers, technologists, engineers and specifiers in 100 countries.

TPT is also available as an online e-zine, to reach even more readers, with selected content available free to all and the entire digital version available on subscription. Readers of the e-zine can click on hyperlinks to be sent directly to websites, while advertisers are able to incorporate video-movies into their adverts if they wish to.

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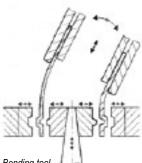


Machinery & Equipment for Bending & End Forming

These processes have reached such an advanced state of development that it can be overlooked how great an achievement they represent. Logic dictates that a bend in a tube weakens it. The suppliers of the state-of-the-art bending and end-forming machinery and equipment reviewed here dictate otherwise. They do so, not by suspending the laws of physical engineering that govern convex and outside bends – but by compensating for them. In this section, *Tube & Pipe Technology* presents products and services intended to ensure that – whatever the material and the angle of the bend – the tubing coming out of the bender and the end former is as sound and strong as it was going in.

Bending and cutting technology

WECOTECH has dedicated itself to forming technology for tube ends for the past 25 years. The company provides solutions for areas ranging from aerospace to the automotive industry



and building services, and its machines and tools are used in applications involving air, gas, exhaust gas, fresh water, waste water and oil.

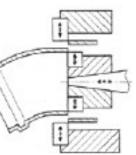
The company's Wecobender-IO performs forming and bending in a single operation. Forming is based on the CNC-controlled Wecomatic principle. Short tubes with formed tube ends and bends up to 20° can be realised in this manner without material

Bending tool

loss. Tube diameters range from 30 to 200mm.

The Tubecutting-IO cutting concept revolutionises the cutting of round and formed tubes. The cutting process between the inner and outer tools is rapid and clean, and can be realised without

oil or additives. The burr-free cut achieved over thousands of cycles is a particular distinguishing feature. This new tube cutting system is suitable for cutting to length from stock and trimming after upstream processes, on tube diameters from 20mm.



Wecotech AG - Switzerland Fax: +41 71 932 7041 Email: info@wecotech.ch Website: www.wecotech.ch

Cutting tool

Bending machine company launches pre-owned division

EAGLE Bending Machines, USA, has announced the launch of its Certified Pre-Owned Eagle division, with a primary focus on providing factory reconditioned and certified Eagle machines to allow customers to purchase premier equipment at substantial savings.

The company will begin by allowing existing customers to trade in their Eagle machines and increase their rolling capacity by moving to a larger model at a trade-in enhanced cost. The company will also consider the purchase of used machines kept in excellent condition.

Eagle Bending Machines – USA Email: sales@eaglebendingmachines.com Website: www.eaglebendingmachines.com



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Tube end forming

PROTO-1 Manufacturing LLC produces Marman clamps, which are a type of heavy-duty band clamp that allows two flat cylindrical interfaces to be simply clamped together using a ring clamp; also known as a 'Marman ring'.

Marman clamps are commonly used as a quick-disconnect style of clamp, such as in wide-diameter fuel lines. Another example is their use in space vehicles, for example on the Cassini Plasma Spectrometer on the Cassini orbiter. The Marman clamp was first produced by Herbert Marx, better known by his stage name of Zeppo Marx as one of the Marx Brothers, after the inventor first approached him with the device. It was manufactured by his company Marman Products. At the time it was designed to secure cargo during transport. The US military used it to transport the atomic bombs used at the end of the Second World War. Marman clamps are found in many modern moving vehicles, though the screw band type clamp is becoming more popular.

There are several methods available for forming the variations on the 20 degree large bead form. Applications of this form range from diesel truck exhaust and DPF canister components, aircraft bleed air ducting, turbocharger inlet and outlet, and any other air management tubing requiring a leak tight seal. The advantages of this style of connection are that components may be disconnected from the system, replaced, and reconnected without destruction of the fittings. The clamp also allows for small adjustments in orientation of the components where alignment is critical. Some original equipment manufacturers and aftermarket parts suppliers have adopted this form to their parts, and the application will dictate which method is used to manufacture them. Checking print specs for words like "uniform wall thickness throughout" and critical tolerances will determine which forming method, equipment and tooling are necessary. Let us compare the differences between rotary/spinning and progressive ram forming.

The rotary/spin forming method of forming large beads is fast, easy, and economical. Rotary forming produces a very smooth finish on the mating surfaces. The tooling set consists of a set of clamp jaws to maintain the nominal diameter of the tube, and a rotary forming 'head' which contains a profiled roller to match the ID profile of the bead. The tooling segments expand while turning inside the tube forcing the rollers and material into the OD bead groove profiled into the clamp jaws. While machine cycle times are typically 8-10 seconds or less, the disadvantage to this system is that the material is stretched, or thinned by 30-50% at the peak of the bead, and some applications may not allow thinning of the material. This process also has problems forming tight corner radii as compared to the progressive ram form. If a reduced diameter lead-in lip or pilot is required, a separate operation is needed to reduce the tube. One inch of straight length before bend is needed for forming to prevent a weld on formal part.

The progressive ram forming process has some distinct advantages over the rotary/spinning process. The main advantage is that the wall thickness throughout the bead remains the nominal wall thickness. Other advantages include the ability to form tighter corner radii and reduce the lead-in lip all in one process. The ram process also has some disadvantages, mainly being that the cycle time is double that of a rotary forming process.

Proto-1 Manufacturing, LLC – USA Fax: +1 920 582 4492 Email: js@proto1mfg.com Website: www.proto1mfg.com

www.tube-southeastasia.com





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Bending & End Forming

Automatic correction on free-form bending machines

Demand for free-form tubes is generated from all areas of industry, rather than primarily from the furniture business as in the past. As a result, more tube benders need measuring systems that take into account the particularities of complex freeform tubing.

Aicon's TubeInspect optical measurement system carries out very precise testing of free-form tube geometries with the help of high-resolution digital cameras. Aicon now also offers an additional interface that connects TubeInspect directly with the



free-form bending machine. This results in automatic correction values being identified for the formed tubes and transmitted to the bending machine, and reduces setup time. Close cooperation with bending machine manufacturer Wafios made this new development possible.

In contrast to tubes manufactured conventionally by draw bending, which consist of calculated lines and bends and feature constant radii, free-form tubes manufactured by push bending have a completely different set of parameters. In a CAD system they are often shown as a spline, a tube geometry in which, theoretically, at any point a different radius can exist. When correction takes place on a conventional bending machine, only the LRA values at the individual bending points have to be corrected.

In comparison to this, to achieve the desired tube geometry using free-form bending, a multitude of different settings on the bending machine have to be adjusted and the bend radii optimised until the exact



Free-form tube placed in the TubeInspect measuring cell

tube form has been bent. This set-up has – to date – been a very time-consuming process with high material usage, so both automation and shortening of the process were the two main aims. TubeInspect's newly developed interface enables smooth communication between the bending machine and the measurement system.

Aicon 3D Systems GmbH – Germany Fax: +49 531 58 000 60 Email: info@aicon.de Website: www.aicon.de

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BENDING & END FORMING

Hydraulic bending machine

TAURING, Italy, has created a completely hydraulic bending machine to satisfy the production requirements of coils used in the energy and in the water and other liquid treatment field. The Alpha 60 CNC-i model integrates the personalised machines range produced in the Tauring plant.

The company states that the production of its latest generation of bending machines, based on a new construction philosophy that has received unanimous approval from the market, is characterised by dynamism, precision, reliability, sturdiness, versatility and economy. The Alpha 60 CNC-i features straight guides that contain many technological innovations. The many machine control axes use interlock with brushless motors for contemporary and independent movement, managed by an interpolated numerical control. This technology allows higher precision and repeatability on the coils, ensuring a greater speed in the execution of the production cycle. It is possible to realise coils of any length with constant or variable pitch, with different diameters, modifying the bending axis, with the execution of the shank counter bend at the beginning and at the end of the coil. This is possible thanks to the various CNCi functions, characterised by a simple and intuitive system of programming of every type of regular or irregular geometrical shape, simply by drawing it on the touch-screen monitor or importing it from a dxf file.

Tauringroup – Italy

Fax: +39 011 9977190 Website: www.tauringroup.com

Material increases mandrel and tooling life

OMNI-X has expanded its tooling offering. A new ABX material and no-drop links lead to increased production and tooling life, and efficiency gains can be made through one-stop tool sourcing with the addition of end form I/O tooling.

The company states that tooling life increases for mandrels and wiper inserts when using new ABX (Aluminium Bronze X) material, now available for bending stainless steel and like materials with field tested results up to double the life over the traditional softer AB18. The ABX metallurgic make-up provides a greater hardness for increased wear resistance, while keeping a desired pliability, avoiding the pitfalls of harder but more brittle bronze choices.

Anew no-drop mandrel link configuration in sizes 11 to 13, covering a tube diameter range of 2.625" to 6.625", allows the bend operator a rapid tube loading with the mandrel balls recalibrating to the reload position after removing the previously bent tube. The no-drop feature is also standard on link sizes 2 to 4 for diameters 0.313" to 0.749".

Omni-X Inc – USA Fax: +1 303 789 4755 Email: sales@omnibend.com Website: www.omnibend.com



Tubing processing equipment

PROPER operation and life of hydraulic systems components depend not only on the quality of the components but also on the assembly of the system and the quality of the machining

Center Junior multifunctional unit process through which the pipes were manufactured before assembly.

OP's wide range of products includes a complete line of equipment developed for processing rigid pipes for hydraulic systems, ensuring proper assembly for the user.

Accurate pre-assembly of the fitting cutting ring and the 90° or 37° flaring

of the steel pipe is paramount to the safety of any system using DIN 2353 and SAE J 514 fittings

joints. Erroneous assembly of the cutting ring and inaccurate flaring of the pipe might jeopardise the system and, in extreme cases, cause injury to property and people.

To avoid this, OP proposes various Unispeed series equipment models. The portable units are easy to use and handle, and have a wide range of tools capable of machining carbon steel pipes and stainless steel pipes ranging between 6 and 42mm in diameter, with thickness reaching 4mm.

In addition, OP products include practical bending machines that are easy to use and service, and are suitable for bending stainless steel and carbon steel pipes up to a minimum thickness of 4mm and with a maximum diameter of 42mm.

After cutting, de-burring to remove metallic burrs, which could find their way into the system damaging pumps, valves and other components vital to the system, is paramount. S series de-burring machines ensure proper removal of burrs, leaving the pipe edge clean and smooth.

OP's Center Junior and Mini Center multifunctional and mobile units include all the tools offered separately, allowing operators to have all they require in a single unit.

OP Srl – Italy Fax: +39 030 3580838 Email: info@op-srl.it Website: www.op-srl.it





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Trade House TMK (Singapore)

No end form welding with hollow tube spin forming technology

FORMITT Metal Labs, a division of Hess Industries, Inc, USA, offers process development, prototyping and production runs of custom spin formed hollow tube shapes and assemblies. The company uses spin forming, flow forming and assembly technologies to create hollow symmetrical and asymmetrical shapes, fabrications, and assemblies in both ferrous and nonferrous metals, including stainless and high-alloy steels.

Spin forming eliminates the need for welded tube end forms, enhancing overall component quality and reliability. Hollow-tube fabricated assemblies may include the insertion of filtration elements, heat exchange components or catalytic elements for exhaust after-treatment applications. Spin forming provides a seamless profile that will polish with no welds to grind down.

In one featured application the customer was manufacturing a line of couplings

using stamped half-forms welded together. Ten different size configurations were being manufactured in aluminium, stainless and carbon steel. Due to wear, the customer needed to rebuild all ten dies, at a cost in the tens of thousands of dollars.

Formitt Metal Labs was able to replace all forming and welding operations for the ten part configurations with one set of tube spin forming tooling. As a result, the quality and appearance of the parts were improved while the cost of future new dies, die repairs and welding processes were eliminated. Formitt now provides spin formed production parts to the customer.

Another application featured aftermarket motorcycle muffler shells, where the product involved stamped and welded end-cones with the weld being ground down then polished. Formitt's technicians developed a new manufacturing process that eliminated the dies, stamped parts and welded end-cones. The spin forming process eliminated the welded joints and grinding operation while enhancing the part quality and providing a smooth finish ready for polishing.

Using advanced mechanical design and machine control techniques, new spinforming technologies such as eccentric and oblique spinforming can be addressed. Eccentric Axis Spinforming is used for diameter reduction where one end is on an eccentric (offset) axis to the original cylinder. Oblique Axis Spinforming creates an oblique axis not parallel to the centreline of the cylinder without welding. These technologies are perfect for closedcoupled catalytic converters and similar components.

In general, spinning is more efficient than other metalforming processes.

Additionally, spun shapes can be combined with cast, drawn, forged or machined parts to reduce costs and increase productivity.

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

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BENDING & END FORMING

Bending force

FOR over 30 years Zopf has offered bending machines, and the company's main focus has changed from trading to construction and production.

The company's ring bending machine programme extends from proven conventional models to designs with digital displays, hydraulic advance, and NC and CNC controls. Praxis-oriented new and continued developments rationalise the work process and offer optimum solutions.

The machines are used by small to large companies from all kinds of economic fields, such as shop window construction, mechanical and apparatus engineering, locksmiths, theatres, automobile manufacturers and greenhouse construction. Internationally, Zopf ring bending machines are represented in Europe, overseas and the Far East, and are supported by qualified agencies in several countries.

Zopf Bending Machines – Germany Fax: +49 8222 6204 Email: info@zopfbiegemaschinen.de Website: www.zopfbiegemaschinen.de

Pedrazzoli machines now available from Accurate Cutting Services

AFTER discussions at the Mach 2010 exhibition Roberto Cian-Seran, commercial director at Pedrazzoli IBP, was impressed with the sales and after sales service Accurate Cutting Services Ltd were giving to the end users of its 'A' range of machines. The decision was made to wind up Pedrazzoli Tube Technology UK and let Accurate Cutting Services Ltd handle the whole range of Pedrazzoli products.

After visiting Pedrazzoli's base, in Bassano del Grappa in the Trento region of Italy, an agreement was reached. Accurate Cutting Services Ltd is now a one-stop shop for the complete Pedrazzoli range of equipment.

Pedrazzoli has developed the NC range of its tube manipulation machines to dispense with the old hydraulic controls, and has replaced the cylinders with brushless motors, making the moving axis particularly smooth and silent. This also presents a much cleaner machine, uncluttered by hydraulic hoses and limit switches. This range will shortly be available in the UK.

In addition to the tube bending

equipment, the end forming range of machinery produced by Pedrazzoli since 1948 incorporates the Stern range, which can be equipped with 25 different tools, each specifically designed for the end forming of tube, automatically. The unique Jariston Brown swaging machine is capable of swaging up to 80mm diameter tube.

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Pipe-forming technology

BETEC manufactures high-quality, sophisticated products with special features, and sells them worldwide. The company's core focus is on pipe-forming technology and special machinery.



BeTec's S122 cutter

The company's latest machinery highlights include the S255 roller machine. The special feature of this machine is a unique new development, the 'carousel head'.

The new S122 cutting machine offers chipless cutting for the price of a saw.

Bending and retrofitting procedures can be carried out on a 12-axis bending machine, and the company can demonstrate expansions to the radial forming machine AE 80e. All of these processes take place on fully electric bending and chipless forming machines, meaning an end to oil leakage, and claimed energy savings of up to 50%.

BeTec GmbH – Germany Fax: +49 7963 9030 28 Email: info@firma-betec.de Website: www.firma-betec.de

S255 roller





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BENDING & END FORMING

Mandrel tube and pipe benders

ERCOLINA'S new GB100 semi-automatic mandrel machine (maximum mild steel tube capacity to $4\frac{3}{4}$ ") is suitable for bending tube, pipe, square and rectangular profiles to centre line radius as tight as 1.5D, and accepts large radii tooling to 16" CLR.

An interactive PLC touch screen offers easy access to auto and manual operating modes, system diagnostics and multiple language capability. Absolute (ABS) or incremental (INC) positioning are possible with inch or metric readout displayed on touch screen. GB100 offers programmable bend angles with independent material spring back setting for each bend. Programmable



The GB100 semi-automatic mandrel machine

auto mandrel positioning allows the operator to optimise extraction for improved bend quality.

Clamping, pressure die and boost movements are programmable with manual override, and unlimited program memory storage and communication is provided by convenient USB.

Programmable tail stock interference zone monitors position and eliminates workhead collision, and the machine accepts YBC and XYZ input values. Other features include a high capacity hydraulic reservoir with automatic cooling system, heavy steel structure providing a rigid platform and minimised vibration, and standard hydraulic ports that accept Ercolina's patented (KST) clam shell clamping system.

Hand-held remote bending control is certified class 3 safety and all electrical components are UL, CSA and CE approved. Machines also available with full CNC (6) axis control.

CML USA has also introduced Ercolina's TM76 Mandrel Bender with a bending capacity up to 3" round tube and multiple profiles, capable of bends to CLR as small as 1.5D with USB offering unlimited storage



TM76 has a bending capacity of up to 3" round tube

of bend programs, material library and job information. Model TM76 is suitable for prototype or daily production, and 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. Model 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.

CML USA Ercolina – USA Fax: +1 563 391 7710 Email: info@ercolina-usa.com Website: www.ercolinacnc.com



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Bending simulation and interference testing

BUILDING a pipeline system, for water, oil or any other medium, is a task that involves multiple departments and people. One department creates the initial P&I diagrams, where all systems are outlined, the materials are classified, and the general structure of the system is determined. Another department then uses these P&I diagrams to create isometric drawings or 3D models of the system, which can be divided into spools for fabrication. The tube shop finally has the task of fabricating these spools, a process that often involves bending the tube at certain angles.

Unfortunately there are some tubes that even the most experienced operator with the most modern bending machine cannot bend without difficulty, especially if bends are too close together, or would cause the tube to collide with the machine. Designers often have only a vague understanding of the technical limitations of the machines, and so there is a risk that they will design tubes that simply cannot be fabricated, or only by making major adjustments to the bending process.

Often an experienced bender can spot these tubes just by looking at the worksheet,

RONIKolli7 screenshots







which at least reduces the danger of damage to the machine. However, he still has to find a way to fabricate the tube, which can be time-consuming and expensive.

It is here that bending simulation software, such as RONIKolli7, becomes a powerful tool for both designers and operators. Using virtual models of the machine and its environment the tube geometry is tested for collision. The bending process is simulated graphically, so the collision points can be detected immediately. If a collision is detected the software automatically looks for alternative ways to bend the tube, based on the capabilities of the machine. This may include reversal of the rotation direction, reversal of the bending sequence (last point first), a correction feed, or any combination of these steps. On more sophisticated machines a change of bending level or of the bending direction (left-bending vs right-bending) might solve the problem.

If a bending sequence capable of fabricating the tube without collision is found, the CNC data is automatically adjusted, so there is no need for lengthy manual calculations. If a material master file has been created with the K7-MaterialManager RONIKolli7 also adjusts this data for overbending and traction reduction, to compensate for springback.

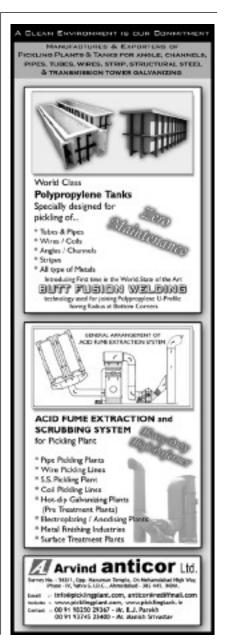
The software can be used either directly at the machine, to test the tubes sent by the construction department, or in that department itself. The designer can immediately check if the iso he is creating can actually be built, and adjust his work accordingly if fabrication is impossible. This saves time and material later in the workshop, and since RONIKolli7 can run in the background it only takes moments to check each spool.

The machine models are created on-site by measuring the physical machines, which makes it possible to include any modifications or adjustments that distinguish the machine from other models. Since 3R software solutions works with many manufacturers of bending machines, it is often possible to measure the machines prior to delivery, so there is no disruption of the workflow once the machine has arrived on site.

Tool models are created by measurement or based on technical drawings, so that only the tools actually used in the workshop are available. Multi-level or multi-stack tools can be created in a few minutes, and each tool can be assigned to multiple machines if required. Due to the separation of tool model and machine model it is easy to integrate new tools into the software at a later point.

3R software solutions has included a wide range of additional features, such as IGES-import, creation of segment bends and tube coils, or an approximation of the cycle time. RONIKolli7 is in use worldwide, by shipyards, plant designers, automotive suppliers, and many other businesses working with tubes.

3R software solutions – Germany Fax: +49 2381 9724 711 Email: info@3-r.de Website: www.3-r.de





The World's No.1

EuroBLECH 2010

While much is expected of an event of the calibre of EuroBLECH, no one would think of requiring it to coincide with a double dose of good news from Britain and Germany. Yet it appears that the 21st International Sheet Metal Working Technology Exhibition has contrived to do just that. In midsummer, as plans for Hanover in October were being firmed up in many places around the globe, the two important European economies obliged with the publication of some surprisingly optimistic data.

On 23 July, Britain startled economists with the disclosure of a 1.1% increase in its gross domestic product in the second quarter – almost twice the rate expected, according to the Office for National Statistics. For its part, Berlin announced that German business confidence rose in July to its highest level since reunification. In tandem – perhaps in jubilation – the euro and the pound rose against the US dollar.

Show Venue Exhibition Grounds, Hanover, Germany

Date 26–30 October 2010

Show Days / Dates	Hours
Tuesday, 26 October 2010	9.00 - 18.00
Wednesday, 27 October 2010	9.00 - 18.00
Thursday, 28 October 2010	9.00 - 18.00
Friday, 29 October 2010	9.00 - 18.00
Saturday, 30 October 2010	9.00 - 16.00

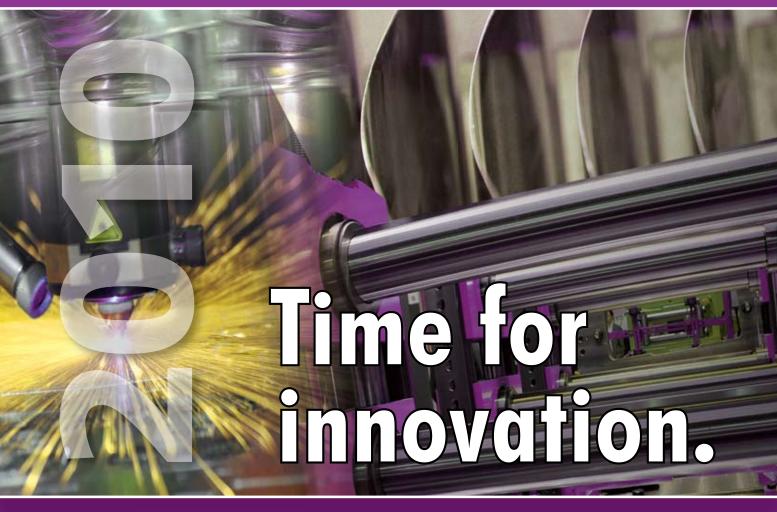
Website www.euroblech.com

(Hanover, Germany)

It of course remains to be seen whether these positive signals mean that investors and economists have been unduly pessimistic about the recovery of the world economy. The outlook for the rest of the year may be described as unclear but with persistent headwinds.

Even so, the word from Britain and Germany is as encouraging as it is timely. The first Blech – although the name lay some years in the future – was held in London in 1969; the second, two years later in Manchester. While the world's Number One sheet metal working technology exhibition now makes its permanent home in Germany, the twin strains can still be traced in the early history of this premier event. Fittingly, together they are providing a favourable context for EuroBLECH 2010.

21st International Sheet Metal Working Technology Exhibition





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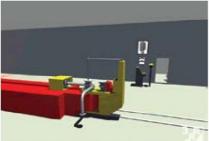


3R software solutions

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OFFERING innovative and customeroriented applications for more than 30 years, 3R software solutions has become a premier supplier of software products for the German and international tube and pipe industry.

Specifically designed to meet the requirements of designers and tube shop operators, the programs developed by 3R software solutions manage to provide powerful features and interfaces to the most commonly used third-party platforms, while remaining intuitive and user-friendly. Each



3R provides an array of software solutions

3R application can be used as a stand-alone product to augment the existing IT system, or as part of an integrated solution, which covers the entire design and fabrication process.

By using a shared database P&I diagrams created with RONIR2D can be turned into isometric drawings in RONIIsoBuilder, which not only automatically creates all relevant lists for parts and material, but also calculates all relevant CNC data for fabrication.

In RONIKolli7 isos can be tested on models of the bending machines available in the shop, to see if a particular tube can actually be fabricated, or if it needs to be adjusted. The result can be transferred either to the bending machine itself, or back to RONIIsoBuilder.

The RAMP system for work preparation finally bundles the isos received from RONIIsoBuilder and creates work orders that maximise utilisation of the machines and minimise idle times. Individual submodules are used, for example to optimise cutting lengths, monitor the fabrication status of each spool, or transfer CNC data directly to the machines, without the need for operator input.

The software is used by shipyards,

automotive suppliers, in plant production and many other fields. 3R software solutions operates worldwide, with customers throughout Europe, the Americas and Australasia.

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AICON 3D	Systems GmbH
Germany	Stand TBC

TI Automotive is a global supplier in the automotive sector. The company's site at Fuldabrück in Germany specialises in manufacturing prototypes of fuel pipes. Since these are made of plastic, they cannot be bent with a conventional bending machine. Instead, they are processed by thermal forming.

The quality of the formed pipes is assured by Daniel Bock who monitors the whole manufacturing process. For example, he has to make sure that the geometry of a produced prototype has exact size according to the drawing. In order to check the contour of a prototype, it is measured in two stages:





The World's No.1



 In the second time after the mass of add-on components like flanges or brackets.

In the past, these measurements were conducted with the help of gauges and other mechanical inspection tools. Mr Bock reports: "The drawback of traditional methods is that the measuring results depend very much on the operator. Moreover, the reports derived from these measurements don't comply with the current requirements in respect of verifiability. To improve the quality of the measurement results, we thought about inspecting the pipes with an articulated arm, that means by probing of predefined measuring points. However, when observing measurement service providers, we saw that the measurements done with an articulated arm were very complex and time-consuming. To be honest, I have been reluctant to accept this effort. This is no solution for the workaday application in our prototype production."

Mr Bock started searching for another metrological alternative: "Due to earlier projects, I have already been familiar with the principle of optical measurement," he said. "Therefore, I have considered it possible to use this technology for the measurement of our pipes too. I visited several trade fairs for quality assurance to find the right solution for our requirements. In doing so, I suddenly came across AICON's optical tube measuring system TubeInspect. Originally this system was not made for measuring plastic pipes. However, thanks to a vivid information exchange and a clear definition of our demands. AICON was in the position to guickly upgrade TubeInspect's software correspondingly. Finally the system was implemented in our plant in June 2008. And we can totally rely on this measuring machine."

TubeInspect is an optical gauge for the measurement of formed tubes, pipes and wires. For acquiring a pipe's geometry, the object to be measured is simply placed in the optical measuring cell. By capturing the tube with several highresolution digital cameras TubeInspect measures accurately the 3D geometry in a few seconds. The results are reported in an easily understandable way which allows for an unambiguous evaluation on-site.

Usually, plastic pipes are a challenge for measuring machines. In order to get precise measurement values for a comparison of nominal to actual data, the measuring system has to

respect the elasticity of the plastic pipes. In TubeInspect's software, the user can choose an elasticity value specific to the material. This value reflects the flexibility of the pipe, making TubeInspect's measuring results highly accurate.

TI particularly appreciates the time savings gained with TubeInspect. Each prototype of a new plastic pipe can immediately be measured with the system. The fabrication of special gauges and the related waiting time until the gauge is ready for operation are a thing of the past.

TI Automotive is also able to detect deviations from the nominal pipe geometry very early. "With TubeInspect we can give our suppliers support for the production of the bending moulds at an incredibly early stage. Already the first manufactured pipe is measurable without any difficulty. As a consequence, our suppliers are instantly able to manufacture the bending moulds in an accurately fitting way," explained Mr Bock.

TubeInspect also fulfils requirements regarding the checkability of the measurement results. The automatically generated report does not leave any room for interpretation by the operator. Mr Bock tells from his experience: "Our customers want to have a proof of the pipe's accuracy. TubeInspect outputs a coordinate table that can be controlled by everyone – that means also by our customers. This satisfies them much more than the old, usual reports."

Fax: +49 531 58 000 60 Email: info@aicon.de Website: www.aicon.de

AMPCO Metal SA

Switzerland

Stand TBC

AMPCO Bronze is a universal material used in applications where marks, galling or friction problems could decrease quality in an unrepairable manner. The alloys can provide solutions in bending and forming processes, especially for stainless steel and titanium, and where severe load and wear conditions must be resolved.

AMPCO 25 is suitable for tube forming (forming, welding and sizing rolls), while AMPCO M4 is ideal for tube bending (mandrels, balls and wiper dies).

AMPCO Metal SA claims that AMPCO 25 has significantly better compressive strength (1,551 MPa) and average hardness (370 HB) than comparable materials.

Other advantages of the AMPCO M4 material include no coating requirement, no corrosion starting point and an extended life time.

Fax: +41 26 439 93 01 Email: info@ampcometal.com Website: www.ampcometal.com

Costa Levigatrici SpA Italy Hall 11 Stand B09

COSTA Levigatrici SpA, an Italian company located in Schio, Vicenza, and established in 1982, is a specialist in advanced solutions for surface finishing. The company, which has a production area of 17,000m², supports customers with branches all over Europe, the Americas, Asia and Australia.



Costa Levigatrici's MK3 CC polishing machine

Over 8,000 Costa Levigatrici wide belt sanders are in operation today, being used on ferrous and non-ferrous materials.

Products include: wet and dry polishing, brushing, grinding, buffing and brushing lines for sheet to sheet and coil to coil lines; wet and dry universal de-burring and polishing machines; wet and dry universal brushing and polishing machines for sheets, tubes and flat bars; wet polishing machines for flat bars and tubes; and woodworking sanders.

Fax: +39 0445 675110 Email: com@costalev.com Website: www.costalev.com

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^{and pipe industries}

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July 2010 / Vol 23 No 4 / US\$33

The international magazine for the tube

HOBAS



NAKATA promotes

Goil to Coil Process

effective for ERW pipe mill line over 16" O.D.

Advantage:

• Less initial investment for equipment and facilities (Spiral accumulator and Shear & end welder can be eliminated)

Less running cost

- Less capacity of HF welder (Double contact-shoe type)
- Higher Material yield
- · Much more flexible for production of small lot



Automatic entry line





Helical edge miller

HF contact welder



FFX Mill



Milling Cut-off

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Dreistern GmbH & Co KG

Germany

Hall 27 Stand E16

A GLOBAL oversupply of goods is forcing many producers of consumer goods to produce an increasing number of new products for any possible target group. As a consequence their suppliers have to deal with an increasing number of product variants and often drastically reduced lead times. Many tube and profile producers are not prepared to manage this challenge. Die change-over techniques require too much time. At the same time, the companies are forced to reduce their inventory cost in order to meet cost targets.

Dreistern has developed a number of technologies that allow for an efficient counter strategy. They target two main areas: reduction of the required time for a product change to a few minutes, in order to allow the producer to supply small batch sizes without the need for intermediate storing; and enhanced capability to produce completely different products on one production line. This provides the tube manufacturer with the possibility to not only produce round tubes but also complex welded and open sections.

Dreistern provides a number of possibilities to accelerate product changeover. An easy and fast way is a change-over analysis. Dreistern experience shows that a 50% reduction in change-over time can be achieved at relatively low cost, and the company has developed a procedure based on video recording.

Automatic adjustment of roll tools is another efficient option to accelerate product change-over.

Many operators know how much time and material could be saved, when adjustment of tools after production startup could be avoided. The new TMA System targets this problem, and allows automatic measuring and adjustment of all roll tool parameters before production starts. The system ensures that all tool parameters are set and the new product can be produced within the required tolerances and without need for additional adjustment.

Fax: +49 7622 391 200 Email: heinrich.weber@dreistern.com Website: www.dreistern.com

Dynobend BV

Netherlands Hall 11 Stand B44

DYNOBEND BV has developed two new types of machine.

The DP15T-16-2 tube end forming machine was developed with a new approach that made it possible to create a machine with a maximum of benefits for the customer. For example, the machine is able to end form both ends of the tube, even with different end forms, without the necessity of intermediate storage. This is possible because the machine works on two sides, with a total of 32 dies. The machine has four clamp positions. This, in combination with its freedom for clamping already bent products results in improved performance.

All movements are servo electric steered, and the deceleration energy is transferred to the next circuit, so the machine uses less energy. The machine is equipped with Dynobend PC steering, and is highly userfriendly.

The other new development is a complete new version of a combination bending machine, which combines mandrel bending with roll bending. Features include left- and right turn bending, free form roll forming and multi radii bending brought together in one machine.

Fax: +31 53 8507731 Email: info@dynobend.com Website: www.dynobend.com



Eckert Cutting Technology GmbH Germany Stand TBC

ECKERT, Germany, produces cutting machines operating in four main thermal technologies, and complete robotic workstations.

Cutting can be performed by oxygen, plasma, laser or water. This year the latest technology has been successfully implemented – fibre laser in the Diamond Fiber cutting machine. This 'green technology' significantly reduces consumption of electric power and additional gases.

Currently, worldwide there are more than 800 Eckert cutters, and customers include Daimler Chrysler Rail Systems, Rolls-Royce, Becker Warkop, Manesmann – Siegen, Siemens – Chemnitz, and GEA.

The company's water and plasma cutting machine Opal Waterjet Combo is a patented solution that allows the user to automatically cut out the edges of one element with two technologies, resulting in large time savings.

Eckert Company made the assumption that not all edges of a detail must be made in the most expensive and slowest water technology.

Some of the edges – selected by the technologist – can be cut with plasma, which is many times faster and cheaper than water.

Support 3D, which allows cutting and bevelling of plates, tubes and profiles, has a unique mechanical construction with the RACT system (Real Adjusted Cutting Trace). The company states that it represents a step forward in terms of speed and positioning accuracy.

With the availability of all thermal and water cut technologies, and a large park of demonstration machines, Eckert can fit the best possible technology to the needs of a customer.

In addition, machines are built in a way to be perfectly suited to the realities of a customer's production hall.

Thanks to a large service department, Eckert Company provides very fast and efficient service, and with the ability to connect machines to the Internet there is a possibility to make remote diagnostics of a device (online), to reduce the cost of service.

Fax: +49 375 27 47 355 Email: info@eckert-cutting.de Website: www.eckert-cutting.de



The World's No.1

Erndtebrücker Eisenwerk GmbH & Co KG Germany Stand TBC

ERNDTEBRÜCKER Eisenwerk (EEW) is a well-known name in all countries with important LNG, petrochemical, chemical and offshore industries.

The company's stainless steel pipes are mainly used as process pipes for the transportation of liquids and gases within plants and as line, flow line and gathering pipes for longer distances. EEW serves end-users, EPC contractors and distributors/ traders.

The EEW Group is a manufacturer of stainless steel pipes manufactured from plate. EEW offers a size range from 406 to 2,134mm OD (16" to 84"), with wall thickness from 8 to 63.5mm. Modern machines and equipment provide efficient production, and a yearly capacity of more than 24,000 tons is available.

EEW's strength is the efficient production of longitudinally welded stainless steel pipes in single lengths up to 12.2m/13.2m. Depending on the dimensions (OD/wall thickness), the pipes are manufactured with one or two longitudinal weld seams.

The company supplies longitudinally welded pipes from plate. The plate edges are milled, and forming can be performed by 3-roll bending or JCO press bending in combination with pre- or post-bending. Approved welding processes are GMAW, plasma, TIG, SAW, or laser hybrid in the near future. Heat treatment of stainless steel pipes is performed in-house, if required.

In 2004 EEW supplied 1,200 tonnes of 20" 22 Cr duplex pipes to Petro China's Kela II project. These were said to be the first duplex pipes to be supplied to a project worldwide in double random lengths without

jointers. Since then the company has supplied duplex pipes in double random lengths to projects such as Woodside's Otway and NR2 projects, PDO's Kauther and Saih Rawl projects and Shell Nigeria's Gbaran project. LNG projects are also a speciality of EEW, having supplied stainless steel pipes for projects such as Yemen Gas, Sabine Pass, South Hook, RGX, QGX, Pluto and Khursaniyah.

Fax: +49 2753 609 190 Email: info@eew.de Website: www.eew.de

Faspar SpA Hall 16 Stand H11 Italy

FASPAR SpA is a machine builder based in Milan, Italy. Formerly producing presses, in 1977 the company started the production of complete coil processing lines. With a 4,000m² covered production area, Faspar's main products include slitting lines; levelling, straightening and cut-to-length lines (with rotary shear, flying shear and feeding system); surface finishing lines; feeding and pressing/ punching lines; tension/stretch levelling lines; and sandwich panel lines.

Processed materials include stainless steel, steel, galvanised steel, pre-painted steel, aluminium, titanium, copper, brass, tin plate and special steel.

The company's customised products serve steel service centres, automotive industry, white goods industry and construction industry. Faspar is a supplier to international groups such as ThyssenKrupp Group, Sassoli Group, Sandvik, Metecno Group, Ugine & Alz (Arcelor Group), Acesita, and other important service centres worldwide.

> Over 300 Faspar machines are used in Italy, Europe, Russia, Asia, North and South America and Africa.

Faspar will present its 'Fastronic' rotary shear. Characteristics include vector control with all automated settings; quick blade gap setting; automatic system for 'outof-squareness' compensation; and continuous lubrification system.

Fax: +39 02 9471611 Email: faspar@faspar.it Website: www.faspar.it

Fontijne Grotnes BV

Netherlands

Hall 27 Stand G15

FONTIJNE Grotnes creates customised processes and builds production lines that can be used to manufacture complex processes of high quality for diverse industries, and offers global services.

These processes and services are mainly used in the automotive, pipe, aerospace, appliance, nuclear, forging and plastic industries.

The company, which celebrated its 100th anniversary in 2009, has become an important player in the metal forming and pipe industry.

The company has developed over the years into a specialist in the design and construction of pipe-ends and full length pipe expanders for the pipe industry. The Fontijne Grotnes Expander ensures a constant, reproducible process regarding diameter and mechanical properties. The design maximises the radial forces in order to obtain maximum output in relation to pipe dimensions.



The metal forming processes offered by Fontijne Grotnes are used in various industries

A full length pipe expander is an essential part of the production process in a pipe mill. The pipe expander process makes the welding of the pipeline in the field, even cut pipe sections, much easier.

The Straightening System developed by Fontijne Grotnes is designed for small pipes ranging from 16"-30".

The system controls the straightness of the pipes in all directions within $\frac{1}{2}$ API and DNV standards.

The company's sizing technology, expanders, shrinkers and rollformers contribute to diverse production processes that require tight tolerances. These processes often eliminate machining and fabricating steps, saving time, material and manpower.

Fax: +31 10 435 26 55 Email: info@fontijnegrotnes.com Website: www.fontijnegrotnes.com



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SMLS 无缝钢管超声波和涡流探伤组合检测

SMLS SEAMLESS TUBES TESTING with ULTRASC Y CURRENT COMBINED C and I

SONOTRON[™]FB 系统可装备超过120个测试通道,系统可根据API和其他国际标准对直径范围为 90~460mm(3.5~18in)的无缝钢管进行全管体范围的内部和表面的採伤。

SONOTRON¹⁴ FB system is equipped with more than 120 test channels and is capable of providing full volumetric and surface coverage of tubes, according to API and other International standards, for diameters ranging between 90~460 mm (3.5~18 in).

纵向缺陷,横向缺陷以及100%连续钢管壁厚的监控以管体的展开图像形式实时显示,内径缺陷和外 径缺陷以不同的颜色显示在管体展开图像中。角度固定或变化的斜向缺陷检测可在不降低测试速度的情况 下实现。

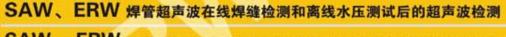
Longitudinal and transversal flaw detection, as well as 100% continuous thickness monitoring is carried out in real-time and is graphically displayed as open pipe view, where I.D. and O.D. flaws are color-coded. Detection of oblique oriented flaws in fixed or variable angles is available without reducing testing speed.

本系统具有管端测试盲区短的特点,因而不需要附加的管端测试设备。另外,本系统使用非常健全可 靠的实时操作系统在线同时完成上百个通道的高容量的数据采集和处理。

The system features short untested ends and additional inspection of pipe ends may not be required. A robust real-time operating system is used to perform high-level data acquisition and processing of hundreds of channels simultaneously.







SAW, ERW ULTRASONIC INSPECTION OF WELDED TUBES ON-LINE and OFF-LINE AFTER HYDROSTATIC TEST

SONOTRONTM ERW是用于检测焊管产品的焊缝或管体中的异常状况的超 声波检测设备。本次系统可用于以下焊管生产阶段:

SONOTRONTM ERW is an ultrasonic testing system for detection of anomalies in (Electric Resistance Welded) tubular products. The system can be supplied in stages for:

- 成形前板卷的在线质量监控 On-line monitoring of strip coil quality before forming
- 在线内毛刺刮除状况的监控 On-line monitoring of internal scarf condition
- 在线焊缝和热影响区(HAZ)的缺陷检测 On-line flaw detection in weld and Heat Affected Zone (HAZ)
- 离线切定尺焊管的焊缝/热影响区和全管体的缺陷检测 Off-line full body inspection of cut-to-length product

NDT Technologies Inc. Web:www.ndt.ca

20275 Clark Graham, Baie D'Urf é 🗌 Montreal, Quebec, CANADA, H9X 3T5 TEL:+1-514-457-7650 FAX:+1-514-457-7652 E-mail:info@ndt.ca 中国区代理:宏建机电国际有限公司 北京市朝阳区北苑路168号中安盛业大厦1103B 邮编: 100101 联系人:周国建 电话: 13701191909 E-mail: tom.zhou@hongjian-autome.com.cn



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Gullco International Ltd Stand TBC Canada

GULLCO'S Pipe Kat® automated pipe welding system with integrated wire feeder unit incorporates 40 IPM welding carriage design with quick action mounting for ease of installation. The carriage is equipped with a high speed return feature for faster repositioning of the carriage.



Pipe Kat orbital welding system

The Pipe Kat is also equipped with a linear oscillator with adjustable weave width and weld joint centreline adjustment, and all electronic motorised functions incorporate jog settings. The system features a main control box with 7,620mm (25ft) umbilical, wire feed spool capacity of 4.5kg (10lb), with a maximum wire speed of 89-226cm/min (35-633 IPM) and a wire size range of 0.8 to 2mm. The welding torch uses standard consumables.

Fax: +1 905 953 4138 Email: sales@gullco.com Website: www.gullco.com

Hagen & Goebel Werkzeugmaschinen GmbH Hall 16 Stand K14 Germany

HAGEN & Goebel will present its horizontal CNC-controlled workpiece end machining FEB 3-150 for profiles and full material, in addition to its range of high-thread machines, machining units and clamping

Hagen & Goebel's FFB 3-150





systems and horizontal CNC flange and end finishing machines.

The machine was designed specifically to process round or profiled workpieces of any length, quickly and easily, as the piece ends for milling, drilling, de-burring or threads. The powerful spindle motor, in conjunction with Siemens CNC control, ensures a continuously variable speed range up to 6,000rpm. The massive three feed axes have a maximum stroke of 150mm. The front clamping table is arranged with two manual centric vices with clamping range Ø 12-100mm.

Fax: +49 2921 59016 66 Email: contact@hagengoebel.de Website: www.hagengoebel.de

installations to be used in workshops or in construction sites according to clients' requirements for tanks/barrels/silos productions, destined for food and industrial fields (wine, milk, beer, fruit juices, chemical field, etc). IMCAR's offices and workshop are

located in Concorezzo, close to Milan, and the company occupies an area of 6,000m², of which 4,000m² is dedicated to component and machine production and parts storage.

The company's clients have allowed it to develop its commercial network all over Europe, Russia and Ukraine, USA, Canada, Central and South America, Asia, Africa, Australia, Malaysia, New Zealand and Singapore.

Fax: +39 039 604 1531 Email: imcar@imcar.it Website: www.imcar.it



Vertical installation from IMCAR

IMCAR Srl	
Italy	Stand TBC

IMCAR Srl was established in 1955 and it placed itself on the international and national market as a company specialised in the plate and profile bending process.



The company's range of products includes profile bending machines; plate bending machines: standard or CNC, 2/3/4 rolls, up to 6m long, that can bend up to 80mm; and automatic systems from coil or pallet and custom machines according to clients' specifications.

The company also manufactures special

Interpipe Ukraine

Stand TBC

INTERPIPE Niko Tube has successfully passed the second audit for pressureoperated pipes and vessels. The audit was carried out according to the demands of the European Equipment Directive, Pressure Equipment Directive 97/23/EC, and German instructions for pressure-operated capacities and boilers, AD 2000 - Merkblatt W0. The audit was carried out by the international certifying agency TUV NORD Systems GmbH (Hamburg, Germany).

TUV NORD The certification demonstrates that Interpipe Niko Tube has all the necessary conditions for the production of pressure-operated pipe such as qualified personnel, modern equipment and a quality management system for the production of pipe with special application.

Andrey Bibik, director for machinery and power sales at Interpipe, commented, "Interpipe has passed the TUV NORD audit for pipes and vessels many times. The first audit pertaining to the European Equipment Directive was passed by Interpipe Niko Tube back in 2002, and AD 2000 in 2004.

SEPTEMBER 2010 125

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The World's No.1

 This certification is a necessary demand of the market in which we work and demonstrates the trust of buyers not only in Europe, but in the whole world."

Interpipe is also building an electric arc furnace at Interpipe Steel (Dnepr steel) with a capacity 1.3 million tons of steel per year. The company's products are in compliance with API 5L PSL1/PSL2, API 5CT, ASTM, EN (DIN), NF, ΓOCT , AAR, UIC, and European norms. The quality management system is in compliance with ISO 9001, ISO 14001, API Spec Q1 and $\mathcal{I}CTY$ ISO 9001. The company's mills are located in the Dnepropetrovsk region of Ukraine.

Fax: +38 562 389 482 Email: press-office@interpipe.biz Website: www.interpipe.biz

Petig AG	
Germany	Stand TE

FLEXIBLE and deformation-free throughpunching of hollow sections – whether rectangular, square or round – has been proven as a time-saving method compared to single-sided punching.

To punch free of deformations with the through-punching method, the upper tube wall is cut by the punching die. Afterwards, the slug serves as the punching die's extension and punches the lower tube wall. The punching slug becomes a cutting tool.

The slug guide in the expansion die and the die holder has to be very tight so the slug cannot loosen. Using expanding mandrels, which are driven separately and have exchangeable dies, the tube can be punched free of burrs without further postproduction.

Petig machines allow the manufacturing of tubes up to 10m length, diameter up to 100mm and a wall thickness of 0.5 to 10mm.

The disposal of the punching slugs is easy, because they fall through the machine table into a box after each punch. Depending on the tube size, up to four tubes can be processed simultaneously.



When the punching holes are in visible areas, deformations should be avoided. In order that the quality of the upper and lower perforations is virtually equal, the responsible expanding die is of great importance.

Petig's punching method with the expansion die has been successful for several years and finds application in many industries. Compared to single-sided punching, the company claims an increase of productivity of up to 35%.

Without further working steps, tubes can be turned for further processing and thanks to the control system, the collet chucks in the feed can be rotated into any tube position. This way, the tube can be processed on different axes.

Fax: +49 2181 73108 Email: info@petig.com Website: www.petig.com



FOR more than 50 years, Poligrat has specialised in the development, production and application of processes for the finishing of metal surfaces. The company's processes for the treatment of metal surfaces include cleaning, pickling and passivation, chemical and electrochemical polishing and deburring, chemical colouring and anodising, and coating.



Stainless steel wall cladding, Poliant-coated to improve cleaning properties

Poligrat provides technical and economic solutions, and can supply both plant and chemicals for the application of these methods, either as a subcontract operation in Poligrat's own factories or for use at the customer's site.

Branches and subsidiaries are located in Arnstadt, Hildesheim, Pfungstadt; England, France, Switzerland, Hungary, Canada and USA.

Processes include: cleaning – Protect Cleaner; pickling and passivating – Polinox processes; chemical and electrochemical



Before and after: weld of a stainless steel sheet, cleaned and passivated with Polinox-Protect to improve corrosion resistance

polishing and de-burring – Aluchem, Carbochem, Cuprochem, Tichem, Zirchem, Poligrat E; chemical colouring and anodising – Polispectral, Titancolor; coating – Poliant, Poliseal.

Product groups for functional surfaces are: fouling/coating behaviour/ biocompatibility; fatigue resistance; emission behaviour; high frequency conductivity; corrosion resistance; solderability and weldability; metallic cleanness; passivity/ product neutrality; reflective behaviour/ cleaning behaviour; sterile properties; and vacuum behaviour/abrasion. Decorative surfaces: colour; smoothness; and cleaning behaviour/structure. Burr-free surfaces: smooth edges/burr-free; particle-free; crack detection; and sharpness/scale-free.

A wide variety of materials can be treated, ranging from aluminium to zinc, with the emphasis on the treatment of stainless steel, mild steel, titanium and non-ferrous metals.

Fax: +49 89 42778 309 Email: info@poligrat.de Website: www.poligrat.de

Poligrat UK

Fax: +44 1 252 322 791 Email: info@poligratuk.co.uk Website: www.poligratuk.co.uk

PROfirst Group Germany Hall 12 Stand F65

PROFIRST supplies CAD/CAMprogramming software for CNC laser, plasma, gas and water-jet profile cutting machines. With modules for bevel and pipe cutting, as well as drilling and part marking, PROfirst offers a complete solution for advanced cutting machines.

IL NOME GIUSTO PER DARCI UN TAGLIO

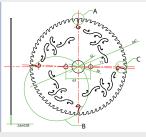
PRODUCTION, SALES, SHARPENING & REPAIR CONSULTING SERVICES FOR THE TUBE INDUSTRY.

Diameter 80 ÷ 2200 mm - Kerf 1,2 ÷ 14 mm - Pitch 6 ÷ 180 mm





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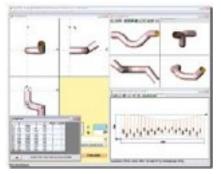




OLIMPIA 80 s.r.l.

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PROfirst LogiTRACE pipeline screenshot

PROfirst's quotation module allows sales staff to make accurate quotations for complicated metal assemblies, including profile parts with bending and welding. Optional machine monitoring and interfaces to ERP systems make PROfirst a complete solution for high-end cutting applications.

> LogiTRACE unfolding software for isolation, piping, vessel, ventilation ducting, engineering, and general sheet metal work, as well as LogiTOLE and LogiBARRE optimiser software for rectangles or linear saw parts such as piping and profiles, will also be exhibited.

Fax: +49 8661 98 396 99 Email: info@tolsoftware.com Website: www.profirst-group.com

PROTEM SAS Stand TBC France

PROTEM specialises in the design and manufacture of portable pipe-end preparation tools such as pipe bevelling, tube cutting and surfacing machines, ranging from 3 to 3,600mm OD. The company also designs specific machining and welding equipment according to customer needs.

The company's electric BB machine can be used either on-site or in the workshop. The heavy duty beveller will bevel, face and counterbore heavy wall pipes individually or simultaneously. It will perform repeatable high quality weld preps on most metal pipes including stainless, duplex, super duplex from 3" to 16" outside diameter (88.9 to 406mm), or from 12" to 24" outside diameter (323.9 to 610mm).

The bench beveller can be fixed to the floor and is easily installed. It clamps the outside diameter of the pipe, and can be controlled by one operator. Used with an optional profile tracking device, it will machine oval pipes, leaving a root face of a consistent width, which is required when using orbital welding heads.

Fax: +33 475 57 46 02 Email: contact@protem.fr Website: www.protem.fr

PROTEM GmbH – Germany Fax: +49 7247 9393 33 Email: info@protem-gmbh.de Website: www.protem-gmbh.de



THE latest creation from SIMASV, an Italian company manufacturing tooling machines since 1957, is the 30°>140° variable angle hydraulic notching machine AV226/PA-CNC, with maximum cutting capability of 6mm. The machine was designed with a system to regulate blades by means of an electronic control integrated to the machine; this notcher has been conceived to meet the strict accuracy requirement of the ESTEC – European Space Research & Technology Centre.

The blades of the notcher are moved singularly and controlled by an electronic NC. Thanks to this system the machine achieves a cutting precision equal to 0.1°. Furthermore the machine can mount a punching head controlled independently and operating via a changeover switch allowing to shift easily from the notching to the punching step.

The AV226/PA-CNC notching machine

SIMASV CNC hydraulic notching machine with punching head mod AV226-PA/CNC



features a solid structure that can withstand all the shearing blows, gives rigidity to the machine, and facilitates the metal sheets shifting. The conical slots on the worktable prevent play due to normal wear, and the rigid support structure under the worktable can withstand the shearing blows.

Other features include a prismatically guided compact special iron shearing head, automatic adjustment of the clearance between the blades (patent), and electrical/control panel placed under the worktable to avoid accidental collisions.

SIMASV also takes care of operator safety by providing the machine with hydraulic locking of blade strokes with safety system; remote control or by pedal or hand-buttons; and optimal lighting on the shearing area.

A wide range of optional and customised equipment completes the extended standard outfit.

Fax: +39 0445 364450 Email: marketing@simasv.it Website: www.simasv.it

SOMASS

Germany

Stand TBC

THE SOMASS Company is an independent design office in the sector of roll forming, offering design and analysis for roll forming tools from all regions of the roll forming technique, from pipe line tubes with material thickness up to 20mm to thin walled tubes for corrugated shapes.

The company also designs solutions for trapezoidal sections, sinus profiles and all kinds of open and closed sections, from high strength steel to copper.

Customers are machine builders and manufacturers of roll form products in the European market.

SOMASS analyses and optimises critical tool sets. For the design and analysis of roll from tools SOMASS uses the roll form software Copra RF and the FE-simulation software Copra FEA RF.

The company supports customers from all kinds of industrial sectors, such as automotive, building parts, cable industry, white goods and the furniture industry. The company is certified to the quality standards of ISO9001:2008.

Fax: +49 8025 993238 Email: info@somass.de Website: www.somass.de



The World's No.1

Tracto-Technik GmbH & Co KGGermanyHall 11 Stand E54

AT EuroBlech 2010 Tracto-Technik will present its latest generation of allelectric CNC pipe bending machines and a highly-innovative optical measuring system.



Tracto-Technik's latest all-electric CNC pipe bending machine, Tubotron Vario 40 RL

The all-electric pipe bender Tubotron Vario 40 RL combines rotary-draw bending and freeform bending, multi-stack tooling and right-and-left hand bending, and offers a broad application range. The machine is able to bend tubes and pipes up to 42mm OD in short cycle times and with high repeat accuracy. Main application fields are automotive, furniture or aerospace industries. For mass production the pipe bending machine can be extended with an integrated automatic loading and unloading device. Operating the machine via a touch PC with graphical user interface and menu-driven user guidance is simple and comfortable.

For tube inspection Tracto-Technik has produced a newly developed optical tube measuring system. Using high-definition camera technology the Tuboscan S enables precise and fast measuring of tube geometries. Because of the touch-less measuring process the new inspection system is suitable for the measuring of small diameter tubes or parts with flexible fractions. The Tuboscan S is available with different measuring ranges



The measuring process only takes a 'blink of an eye'

and can be used for quality assurance as well as for reverse engineering of sample tube parts. The measuring system uses the TeZetCAD solution, which offers a many measuring and evaluation features. A mobile control panel with computer and pre-installed software pack is available on request.

Tracto-Technik provides semi-automatic and fully automatic CNC pipe bending machines up to 170mm pipe diameter, pipe end forming machines, pipe measuring systems, special machines and handling systems for pipe fabrication, as well as software solutions for the pipe workshop.

Fax: +49 2725 9540 33 Email: tubomat@tracto-technik.de Website: http://pipebending.tracto-technik.com

transfluid Maschinenbau Germany Hall 11 Stand D01

TRANSFLUID[®], a manufacturer of tube bending and tube processing machines, will present its solutions for tubes at the EuroBLECH 2010.

Since 1988 transfluid has continually improved technologies in tube processing to meet customers' demands, offering optimum, tailor-made solutions in machine and plant construction, that are used in the automobile, ship building and furniture industries as well as the construction of railings and conveyor technology. The company has service offices in Europe and Asia.

transfluid's product portfolio offers solutions in five different machine

categories, to meet all requirements in tube processing: t bend includes semi- and fully-automatic tube bending machines, as well as largediameter tube bending machines with maximum diameters of 273mm or 10"; t form represents highquality axial, rolling and combined tube forming machines; automation systems sophisticated with concepts for bending and forming technology belong to the t motion category; with t cut,



transfluid offers tube cutting machines in different system variants; and t clean is transfluid's range of tube cleaning machines for guaranteed cleanliness of work pieces and pipes.

During EuroBLECH the focus will be on pipes processed to precision. The transfluid team will present new technologies, processes and developments for tube solutions.

Fax: +49 2972 97 15 11 Email: info@transfluid.de Website: www.transfluid.de



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Tube & Pipe Technology UK Hall 12 Stand A32

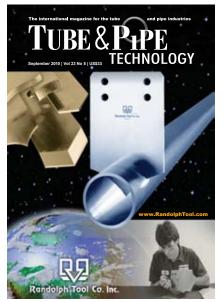
TUBE & Pipe Technology magazine is the international trade magazine for the tube and pipe industries, published six times a year in the English language.

It covers the production, processing and utilisation of tube and pipe. Each issue of the magazine provides coverage of essential industry news, technology and product updates. It includes regular topical columns, a variety of technical features and in-depth articles highlighting the very latest scientific information and manufacturing solutions.

The magazine has a loyal worldwide readership of more than 13,500, and is distributed to buyers, technologists, engineers and specifiers in 100 countries.

TPT is also available as an online e-zine, to reach even more readers, with selected content available free to all and the entire digital version available on subscription. Readers of the e-zine can click on hyperlinks to be sent directly to websites, while advertisers are able to incorporate video-movies into their adverts if they wish to.

Email: tpt@intras.co.uk Website: www.read-tpt.com



The latest issue of TPT magazine

Wafios AG / Mewag AG Germany/Switzerland Hall 15 Stand E05

THE BMZ 52 is a new development presented by Wafios AG for tube diameters



Wafios BMZ 52

up to 21mm, and especially fitted for multi-shift operations. Mewag showcases the Ecolus 1, a completely new machine concept for small tube diameters. Both machines are equipped with the new programming and control software WPS 3.1 Easy Way.

The Wafios BMU 40 is presented as a new CNC coiling and bending centre for wire and tube material. The Wafios BM 30 CNC coiling and bending machine with a linear driven transport unit rounds off the product range.

The German WAFIOS AG took over the majority of shares of the long-established Swiss MEWAG Maschinenfabrik AG in 2008. The merging of the two technically leading manufacturers of tube and profile bending machines will strengthen the guality and innovation leadership of both companies. The production of special high-quality machines will be continued in both plants.

A few years ago, WAFIOS AG, worldwide leading manufacturer of wire processing machines, took over the tube and profile bending know-how of Pulzer Biegetechnik which then had been a corporation of the company Trumpf (Ditzingen, Germany). Since then WAFIOS AG has been able to continuously expand its range of tube forming machines. A comprehensive and innovative centre of competence is created and will receive worldwide recognition when WAFIOS takes over shares of the renowned MEWAG Maschinenfabrik that boasts 50 years of tube and profile bending knowhow. The long-established production sites in Reutlingen, Germany, and Wasen, Switzerland, will be maintained and expanded in accordance with the growth of the tube bending sector.

Wafios AG – Germany Fax: +49 71 2149 1209 Email: sales@wafios.de Website: www.wafios.de

Mewag AG - Switzerland Fax: +41 34 437 75 76 Email: mewag@mewag.com Website: www.mewag.com

Zinser Schweisstechnik GmbH

Hall 11 Stand D01

Germany

THE Zinser Z-2426N plasma and oxvfuel flame cutting system for cutting plates and pipes combines two Zinser competences in a unique machine. As well as the capability to cut plane plates with precision plasma or oxy-fuel, the machine has the ability in CNC pipe cutting mode to realise perfectly with its rotation drive DT-500 all the cutting tasks needed for pipeline construction, manifold tunnels construction, steel construction or, for example, for the construction of light masts.

The machine is suitable for the manufacture of free or standardised cutting geometry on plane plates, pipes or profiled pipes.

Fax: +49 7161 5050 100 Email: info@zinser.de Website: www.zinser.de



Zinser's Z-2426N plasma and oxy-fuel flame cutting system

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中文综合

已修复的二手机械

FRANZ Teutenberg GmbH & Co KG成立 于1966年,自成立起,公司一直专门 从事世界范围内的、品质一流的、 完全修复的、用于半成品钢材和有 色金属线材、棒材、管材、板材、 片材和带材二手机器的购买,销售 以及全套安装。公司从主要生产商 那购买各种设备,并在占地3000平米 的区域内存放了100多台特殊机器。 公司还可提供新的或几乎未使用过 的机器,这些机器是由前任买家因 重组或公司清盘而出售的。 专用生产设备及安装可以提供 多年的服务,可以大大节约资本支 出。公司可提供详细的报价,并邀 请对未在库存清单里的机器进行询 价,因为它还依靠自己的经营场地 为大型设备充当代理销售。

Franz Teutenberg GmbH & Co KG – 德国

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电子邮件: info@teutenberg-maschinen.com 网址: www.teutenberg-maschinen.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。

识别轧辊失效的指示器

ROLL-KRAFT,管道辊压成型业刀 具和设备生产商,在公司的博客上 发表了一篇关于消除刀具失效的辨 别方法和程序的文章。通过一些简 单的步骤定期适当地维护轧辊和刀 具,这些缺陷完全可以避免。这篇 文章讨论了材料选择,轧辊设计, 磨损形态以及在检查过程中寻找什 么等问题。

在加工开始时,必须考虑将经 过轧辊的材料范围,包括最大的厚 度和最高的拉伸强度,以及压辊材 质。当遭受长时间磨损和加热,高 碳工具钢就会变得很脆弱,从而产 生表面裂纹,且进入辊身并传播 开。硬质合金材料轧辊是最硬的, 比合金钢持续的时间更长。下一个 因素是轧辊的设计。适当的设计和 轧机配置是对避免轧辊失效很重要 的。一旦生产,一份仔细检查及维 护的日常计划将帮组确保轧辊和刀 具的完整性。包括外观检查和使用 叶片千分尺测量齿根直径磨损。

轧辊超负荷或偏离都可被轮廓 里面的磨损形态发现。原因也可被 查出,以确定轧辊是否设置不恰当 或可能存在的轧辊问题。不均匀磨 损可能会由设计缺陷引起,设计未 考虑到将成型的材料类型或最大厚 范围,可以显示轴的问题或不正确 的设置。整篇博客文章讨论了进一 步的问题,包括延长轧辊寿命和提 高性能的诀窍。文章链接在公司网 站上。

Roll-Kraft – 美国 传真: +1 440 205 3110 网址: www.roll-kraft.com

带飞秒激光器的切割系统

新的StarCut Tube Femto是第一批为 医疗设备生产提供冷激光切割的系 统之一。飞秒激光器加工材料比能 量速度快,并且可以在原子晶格扩 散。因此没有热传递到周边的材料, 可以消除任何重铸和毛刺。该StarCut Tube Femto系统纳入了紧凑型激光 源,该激光源被现场证明具有高可 靠性和长期稳定性,这些性能是工 业加工必不可少的,而且在超高速 激光源中一直很难找到这些特性。

的激光切割器加工。大的热影响区 造成严重的微结构的改变。相反,飞 秒激光器通过众多支架实现了优良 的结果,显示了高精度的边缘质量。

StarCut Tube Femto结构适应加工 薄壁机械性能脆弱的半场品的具体 要求。已完成的StarFiber StarCut18和 StarFiber激光器仍是用于不锈钢和金属合金切割的一流选择。

Rofin/Baasel Lasertech – 德国 传真: +49 8151 776 4159 电子邮件: sales@baasel.de 网址: www.rofin.com





立式数控珩磨系统用于自动精密加工

SUNNEN的新SV-400系列数控珩磨系统结合了广范围的工具选择,大的工作区域,以及高达1,524mm (60")冲程用于中小型气/柴油机组,油/气部件,液压/气动零件,压缩机、轴承座套、齿轮滚刀和相似的小的或达到多孔部件的孔的定径。

一个915 x 1,015mm (36" x 40"),负重 能力达到90kg(2,000lb)的工作区域, 可以提供很广范围的部件加工。可 选的刀架导轨组装和各种孔直径测

新的SV-400系列立式

数控斯唐系统 The transfer of the tr

量系统,结合X轴向伺服电机驱动的 1,143mm (45")行程,以达到多孔的高 精度自动珩磨。

直线感应能力可以在循环过程中显示孔型。结合专利的伺服系统,使得SV-400能够在孔的任何部位自动停顿并以最短的循环周期自动矫正孔的直线度。SV-400可用于珩磨内径19到200mm (0.75"到8")的工件,或根据工具选择可以珩磨150mm (6")的柴油机缸套。

专为自动化加工中、大批量零件 生产设计的该SV-400系列具有全高的 推进门以及外壳配置,用于自动装 载工件系统,同时数控控制包括一 个内置的自动控制界面。一个20-amp

电源和多个急停接触加上通用 性,很方便自动控制。用多轴 向手轮简化设置,用于垂直冲 程、刀具进给、盘柱定位(仅SV-410可以)以及可选的支架定位的 精确调整。自动工具进给可以 选择用来恒定加载或恒定速度。

以电脑为基础,带彩色触摸屏控 制,拥有多语言能力、下拉菜单、 无限的工作设置能力以及可编程的 定制工具。加上可选的同进程气动 计,各种可选的后处理气动计系统 与SPC数据收集控制相结合,以及尺 寸、缩径和垂直度的自动补偿。控 制系统使得多空定位编程变得很容易。SV-400系列是建立在一个可锻铸铁基座之上,减少硬度和振动。该系列机器的私服控制,速度为1-160次/分的由滚珠螺杆驱动的直线冲程,同时加上一个强大的7.5kW(10 HP)主轴,可提供充足的转矩,用于配备了金属结合剂立方氮化硼和金刚石磨料或标准的氧化铝、碳化硅石的工具进行快速金属切削。

用于垂直和水平轴的,超大的, 永久润滑导轨,提供流畅的运行和 长时间的免维护的使用寿命。可选 的T型槽机台,800 x 1,545 x 45.5mm, 沿水平固定设备架,安装在铸造基 座上,用于支撑各种固定装置。

SV-400系列可配备各种Sunnen工 具,包括General Hone、GHTS、PH、 CV/VK、P20/P28、MPS、HB与新的PH 等精密珩磨工具。PH工具可以持有 多达12个磨石,可生产出最佳直线 度和圆度的孔,同时提供高效率的 中、大批量生产。具有单个或两级 配置,以及可选的整体气动计用于 同进程监控。

Sunnen Products Company – 美国 传真: +1 314 781 2268 电子邮件: sales@sunnen.com 网址: www.sunnen.com

用于碳氢化合物领域的新超声波流量计

SIEMENS Industry Automation Division已 经开发出Sitrans FUT1010,一种超声 波流量计,用于碳氢化合物行业。 它具有几乎无需维护的TransLoc安 装系统,使传感器能安装在管道外 面,防止与介质接触。

这种方法允许外装式传感器可标定到更高的精度,还有一个好处是,可以通过高石蜡液体缓解腔内堵塞,这是在碳氢化合物应用中使用的传统流量计中常见的现象。TransLoc可确保维修和停机时间减少,从而降低经营成本提高投资回报率(ROI)。

将WideBeam超声传送时间流量技 术与整个流量计导管,包括上游, 下游和流量调节器部分,的传送相 结合,可以标定到美国石油协会(API) 和美国气体协会(AGA)规范要求。 也可以确保Sitrans FUT1010达到高度 精确的流量测量。FUT1010 Sitrans有 两种型号:一种用于气体,一种用 于液体,测量粘度达到2800 cSt(厘 沲)。其多样化使其适合上、中和 下游的测量任务,如检查计量,工 艺控制和地下储存监视。它可以安 装到小管以及大管道上,因而适合 很多应用,包括要求试验室校准的 运输监护运用。 Siemens AG – 德国 网址: www.siemens.com/sitrans

来自Siemens 的Sitrans FUT1010超声波流量计



中文综合

不同尺寸钢管的高效喷砂处理

TEREX,一家领先的起重机制造商,为其桁架吊臂起重机生产厂购买了新的Rösler RDR 500管道喷砂机。

在这个位置Terex生产的桁架吊臂 起重机在满载下("起吊和吊起") 有效载荷超过了300吨。产品包括CC 8800-1 TWIN,公司声称这是全世界 最大最强壮的起重机,满载下能起 吊3200万吨。该类型的起重机的重要 部分是网格吊杆,吊杆由不同直径 和长度的钢管制造。新的RDR 500管 道喷砂机使Terex能够在火焰切割前 去除管道氧化皮和锈蚀,长度可达 18,000mm,直接达500mm。

选择RDR一个主要原因是Rösler已 经向原始设备制造商们以及钢材贸易 公司提供了很多近乎相同的管道喷砂 系统。另外一个重点是,Rösler能够 通过在Rösler试验室里指导加工试验 很好地使机械设计适应Terex的要求。 试验显示,要求的清洁度,凭借两 个由22kW电机驱动的高性能Hurricane[®] H42喷砂轮,在机器的运行速度达到2 到 6.5米/分的情况下,已达到瑞士标 准SA 2.5级("接近金属本色")的 表面效果。这种便于维修的单片喷砂 轮按顺序安装在喷砂室内。喷砂室本 身是由耐磨锰钢制造的。精确确定的 喷砂角度确保要求的喷砂效果能在指 定时间内连续实现,即使是相对较大 直径的管道。

因Terex技术规范仅要求管道外表 面的喷砂处理,管端开口应封堵, 但,Rösler可以按需要提供管道内部 和外部的喷砂处理解决方案。

管道通过配有一个进口和一个出口通道的喷砂机运输,由两个额定载荷为500千克/运行米的18米长的轧辊输送机输送。喷砂处理过的管道直接从出口通道进入火焰切割系统。火焰切割系统的供应商,来自荷兰的HGG Profiling Equipment BV,与Rösler有长期的友好合作关系,两个系统间的控制界面问题可以很容易地解决。

除了喷砂性能和稳定的机械结构,这种管道喷砂机的维修友好型设计是说服Terex购买Rösler设备的另一个因素。在进口和出口通道以及喷砂室内有非常大的检查/维修门,可以方便经济的进入所有需要维修的区域。喷砂室内的维修门通过滑

Linsinger使你的管层质量 达到最好

LINSINGER管层锯床是领先的无缝 管厂主要的成功史,能快速干净的 切割管层。Linsinger锯床提供的超高 产量已经成为全球市场领导者最终 决定因素。算法很简单:你使用超 稳定的Linsinger锯床会得到更多的收 益,机器在最苛刻的条件下整天不 停地、稳定地高速运转着。

无缝管厂工作环境并不是对人和 机特别友好的环境。这些特别恶劣 的环境仅在轧钢厂冷却床后就能找 到。每天24小时中每一分钟,轧制 的管道被传送到冷却床完成管端加 工。管层组成可以切割成几个管长 或将切掉的端的清除的形式。

Linsinger被尝试和证明用于切割管 层的一流的锯切系统为3班操作,可 提供最完美的答案。Linsinger的设计 专家们使用最新的无振动技术已再 次设定了完美切割效果的基准点。 无裂纹,尤其是无毛刺的高质量切 割,且无硬化或热影响。无排放的 切割工艺产生的切割片可以很容易 得被再加工。

作为一种潜在巨大输出量的结 果,在短的投资回收期内,每次切 割的超低成本产生的节省价值远远 超出了相对较小的投资。材料拉伸 强度达到1400 N/mm²的管子能够很轻 松地被切割。无摩擦机械设计不带 驱动带,确保达到最小的公差。切 割质量结果可以直接买到市场,不 需要任何进一步的去除毛刺。所有 这些都与冷却床无关。

Linsinger的长期得到认可的领导地 位已得到提高,这归功于他们使全 世界的客户都感到满意,因为他们 从很多具有吸引力的额外功能中得 到了好处,比如运输系统,长度测 量站,增加的用于管层成形的夹具 等。

在锯床和工具间找到的完美匹配 是降低生产成本的关键。Linsinger以 其独特的室内全自动工具制造设备 提供单一来源的锯床和工具的完美 匹配。Linsinger还为客户提供交钥匙 锯片维修车间和近距离操作培训, 为客户追求更具竞争力的生产成 本。凭着所有这些好处,Linsinger声 称是切割长度领先他人。

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对小直径厚壁机械管道的应用继续 增加,尤其是在汽车、休闲车、农 业和园林机械等领域。典型应用包 括汽车头枕约束、座椅框架和侧面 碰撞系统。商业考虑的是这种型号 的管道需要以经济可行的轧制速度 生产。

通常被认为是最难焊接的管道, 许多生产商根本没有选择,只能提 供过多的焊接电源来试图焊接。这 离理想状态还很远,将最多交付 "蓝"管或在极端情况下大大增加 废料。

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HAZControl Technology™使轧机操作 者可以对所有管道类型存储产品工 艺参数(包括小直径/厚壁管),为 未来的轧机运行提供快速、简便和 自动的操作。HAZControl Technology™ 因此对"最难焊接"的小直径厚壁 管道产品是最为理想的。它使轧机 操作者能够以较高的焊接频率开 始,让后将其降到一个能获得最优 化焊接的点,或者调整到阻抗器开 始失去磁性的点以上。

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高质量的焊接录像也是教育和培 训强有力的工具。高质量图像也可 实现可靠和精确的在线影像处理。 除了焊缝跟踪外,其他功能如内情 显示和熔池性能也能得到分析。数 字处理数据也可利用,如记录文 档、报警或过程控制。

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监控装置体积(相机+照明)可以小 于1 dm3,重量少于200克。这一解决 方案能被用于电弧、激光和混合焊 接过程。激光的单色特征能有效过 滤热光源。 此外,短高功率激光脉冲的使用 与相同时间段内相机曝光时间准确 同步,进一步抑制热光。因此,高 质量的图像同时在热区和冷区都能 同时得到。

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热机械轧制无缝钢管

汽车行业和钢结构工程轻质结构趋势正在增加。此外,施工部件施加 的荷载正在迅速增长。因此对机械 性能得到优化、结合高强度以及增加韧性的无缝钢管的需求继续增加。目前为止,在钢管生产中为达 到高强度的唯一工艺是热处理。热 机械处理已用作生产最优机械性能 特殊钢材产品的成功工具,但到目 前为止,还不能用于无缝钢管。

voestalpine Tubulars与University of Leoben大学金属成型教授联合研发项 目目的是热机械处理在无缝管轧制 过程中的应用。在综合分析这一过 程基础上,达到细微粒结构和优化 的机械性能的主要参数可以识别。 工作可通过对管道轧机靠DoE方法 (试验设计)的参数研究和过程建 模来继续下去。在终变形步骤后快 速冷却,减少轧机,在加强材料中 发挥最大的作用。概括这一结果。 为达到这一目的,管道快速冷却系 统得以开发并最终于2007/2008财政 年上通过安装其他必要设备补充安 装在生产线上。

应用的工艺技术是为无缝管近一步材料和产品开发的基础。除了传统的方法,即通过添加更多的合金元素,通过碳当量增加机械性能, 热机械处理通过广范围内的工艺参数提供工具,来影响机械性能。性能可以在很紧的范围内得到调整, 并按客户的要求进行精调整。错误!参考源未发现,证明无缝管轧制中碳当量,作为焊接性指标,与通过不同工艺可实现的屈服强度的关系。

为实施无缝管生产创新项目结 果,热机械处理用于多用途车量行 业两种不同的产品。第一种产品传 统的热处理被替代,第二种产品, 钢铁化学通过减少昂贵的合金元素 量而被改变。来自voestalpine Tubulars 的热机械轧制无缝钢管在ToughTubes 品牌名下销售。这种新产品满足高 强度无缝钢管下列要求: 高硬度、 拉伸、屈服强度,结合特别韧性、 细微粒结构,通过低碳当量提高焊 接性,极优的冷成型性和提高的表 面质量。

这些特性使ToughTubes适合于: 高强度管线管、机械管、起重机结 构管和汽车行业,总之,热机械性 处理在无缝管轧制中的实现为产品 提升和成本优化提供了机会。过程 控制使好处最大化。主要部件是在 轧制过程中的过程自动化和测量技 术。将来这种新技术能用作加速高 强度和高韧性无缝管研发的一种工 具。

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Linsinger在杜塞尔多夫管材展上第 一次在公共场所展出Linsinger 管道切 断机MC3。Linsinger能达到他们的高 目标,即通过用3个小的圆盘锯替代 传统的大锯,在全自动生产线上经 济快速地切割管道以及型材。这三 个小直径圆盘锯安装在一个旋转的 框架上,且通常能同时切入管道。 效果是:大大缩短了切割时间和节 约了成本。因3个锯片的小切割宽度 (ca. 3mm)使得在整个机器服务寿命 内可能节约ca. 50 km的管道。与之形 成对比的是,大的锯床因切割宽度 达到10毫米,每年将产生大约超过 2.650 m的废料。此外,工具本身成 本也低。MC3锯床一次切割加起来的 成本不超过44 美分。这比用大锯片 完成一次切割要节约69美分。就成 本节约这项就使本机投资在3年内就 得到回报。遵照Linsingers的格言" 永远在最高处",研发团队将这一 格言带到下一阶段,开发更多的功 能。描述如下:

用一个机器人实现全自动换刀系统。机器人最初是设计用来移除切割工件的,并用来选择和拆除测试环。但现在的一个多功能程序是可以在90秒内完成3个锯片的更换。可与在一级方程式赛车上的一次短时间进站相比,进站时间越短,穿

过加工生产线的速度更快。与手工 更换大锯床锯片相比,这个令人难 以置信的时间节约相当于在20年寿 命周期内3班倒操作近1年的额外生 产。这种能力的巨大增加,增加了 自动化,也降低了失误。无需操作 者更换工具的操作是通过全自动控 制系统工具使用寿命表产生的。所 有工具寿命和切削性能数据是电子 储存的,方便读取。

Linsinger Technology提供全自动生产 流程,支持可持续生产成本降低, 使顾客受益,并尽量达到杆位,为 最有效的管道生产赢得比赛。

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流动成型技术中的新标准

LEIFELD Metal Spinning GmbH, 一家 无屑金属成型机床开发和生产厂 家,为中国四川的Anji Precision Pipe Manufacture Co设计了世界上最大的流 动成型机。主要要求包括可变的成 型长度、制造质量、灵活应用以及 生产经济。Leifeld已建立新的标准允 许管道顺流成型达9米,逆流成型达 13米以及更多。新的流动成型机满 足最小公差内的高精度成型要求。 广泛的应用潜力包括最大可能范围 内的管道,直径60~650mm,以及最 大管道重量达4吨。

流动成型是生产旋转对称精密空 心管的一种具有效益的方法。原因 包括与传统方法相比,该方法为节 约型原料投入,近净形生产、低生 产成本以及较短的交付周期。近净 成型可以增强材料强度性能,从而 增加了工件的装载能力。该工艺实 现了各种外部轮廓,如轮廓断面、 过渡半径和锥形面。成型技术,如 挤压、冲压或深拉成型都不能生产 这些类型的形体。

标准产品包括半成品、液压缸和 厨房用品、复杂的驱动元件,如磁 盘载体或双离合器箱。所有延性金 属和合金,包括不锈钢和铝等,可 以流动形成的,要么是圆柱形流动 成型过程中,近条。在圆柱形流动 成型过程中,站上,用一个尾座夹式 成型过程中,站上,用一个尾座支式 成一个摩擦导向时,三个成型轧辊设置 成一个速度并按此速度进给。轧辊 施加在旋转坯料上的局部压力形成 主要在轴向上的流动。该过程减小 了工件壁厚增加了工件长度。 流动成型精密部件由使用一致的 轧辊布置完成,即3 x 120°或4 x 90°。 轧辊几何形状和轧辊偏移对尺寸的 稳定性和生产质量至关重要,并将 成型任务传给所有流动成型轧辊。 轧辊偏移防止不利的材料流动,允 许更多的降低壁厚。

在流动成型中,一定要按轴向物 料流向进行区别。在正向流动中, 物料流向与轧辊旋转同向。该方法 要求带基座的或内部法兰的坯料允 许尾座夹住它。在成型过程中,物 料流向沿主轴轴向方向进行。 在缺乏基座或内部法兰的情况

下,使用反向流动成型方法。在这 种情况下,坯料(管材)被全部推 向芯轴,直到接触到表面有硬齿的 导向接箍。轧辊的轴向推力将坯料 压到齿上提供驱动。在流动成型过 程中,金属在轧辊下向芯轴无支撑 端流动,然后进到机器工作区。因 此纵向进料和流向是相反的。与正 向流动成型相比,反向流动成型的 工件长度不受滑动行程和芯轴长度 限制;因此,最大滑动行程的两倍 的工件长度可以实现。在圆柱形流 动成型中,依靠装机功率和主轴转 矩可以达到绝对的壁厚减少。因 此, 流动成型机的尺寸是一种限制 因素。最初工件的质量也是可达到 的成型长度的决定性标准。另外 个限制是达到75-90%的壁厚减少。

Leifeld的新型ST 650 H9100-4RS流成型机使新的成型尺寸成为可能,达到高于30毫米的高精度成型壁厚。与标准的3辊流动成型机相比,这种Leifeld ST 650 H 3100 S,减少了30%的壁厚,新的设计将在一次反向流动

成型中拉制出较高质量的达13m而不 是4.3m的半成品。到目前为止,高 强度材料可以完成高达28毫米壁厚 的成型。凭着新的设计和高精度成 型,超过30毫米的壁厚可以实现。 此外,这种机器可以在一个加工过 程里减少极限达到90%。

这台机器设计采用较小的ST机的 加强模块组合,因此主要的零部件 也能用于较小机器的构造中,减少 了制造时间。尽管近30米的长度和 近200吨的重量,该机器能够用各部 件制造成,减少大型机床和框架部 件的采购时间,也非常便于运输机 器。综合运用现代同意的CAD系统, 使其可涉及外部供应商在设计过程 初期,将设计和生产时间缩短到8个 月。为了提高成形能力,Leifeld依靠 一个4-辊流动成型滑动,给流动成型 技术在力度、刚度和精度设置了新 的极限。轧辊进料轴的力增加到了 600kN,滑轨被安装,用来使用最小 的结构空间吸纳高径向力。滑架和4 轴径向流动成型滑轨也在刚度和强 度上得以优化。

为增加生产能力,这台机器装备 有一种全自动装载和卸载用大门, 跨度将近30米,来容纳达4,000kg,直 径60 ~ 650mm和长度从4米到13米的 管道。

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A novel modular power supply system for induction heating applications

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Abstract

In this paper a description of a novel power supply for induction heating applications is introduced. Some remarks will be presented as for the topology used, which should be reliable for induction hardening and induction tube welding purposes, and for the particular control technique. Moreover some considerations about the load matching circuit will be proposed together with some novel solutions. Experimental results related to some recent installations will be presented and critically discussed also in comparison with other solutions currently available in the market.

1 Introduction

Induction heating is an industrial process which is more and more used in different fields.

A typical induction heating installation is mainly constituted by a frequency converter, a load matching circuit, the inductor and the load. The control of frequency and power during the process is mandatory to guarantee a high quality product.

The frequency converter can be considered as the core of the installation. The choice of the topology ^[1, 3, 4, 5], the control technique ^[2], the usage for different applications, and the adaptability to different loads ^[6] are the main characteristics of a power generator for induction heating applications.

In this paper a solution of a modular frequency converter, operating in a wide range of frequencies and reliable for different kinds of applications, has been presented. Some typical applications have been discussed in order to demonstrate the versatility and reliability of the solution proposed. In fact the same modular generator has been implemented for high frequency hardening applications and for high frequency induction tube welding.

2 Converter topology

Various converter topologies can be adopted in induction heating application. In the following, a brief comparative analysis will be performed to underline the differences and the effectiveness.

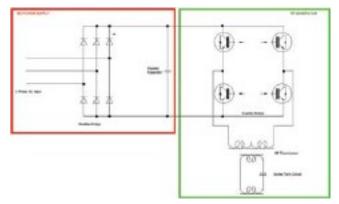


Figure 1: Voltage fed inverter with series load

2.1 Series Resonant Inverter

A possible converter topology is the series resonant inverter, as depicted in figure 1.

A rectifying bridge supplies a VF inverter and a series resonant oscillator is considered. A big DC-link capacitor bank is required and should be located as close as possible to the inverter to reduce parasitic inductances. Then the design is normally very compact. A drawback is the reduced immunity to the short circuits on the load: the DC-link capacitor discharges itself through the inverter when a short circuit occurs.

Furthermore, a matching transformer is required to match the low load impedance with the high generator impedance. This introduces losses in the circuit and is quite complex to manufacture (more and more at the increasing of the frequency).

As the inverter DC voltage is constant, the control board must regulate both power and frequency. A possible solution is the so-called "frequency sweep", where the power is regulated by changing the frequency and then moving the working point over the load impedance characteristic; the inverter is fired with theoretical duty-cycle 50% and introducing a dead time to avoid leg's short circuit. Another possibility is the resonant PWM where the frequency is fixed (close to the natural resonant one) and the power is regulated by changing the leg duty-cycle: the maximum output power is so reached at duty 50% and it will decrease together with the reduction of the duty.

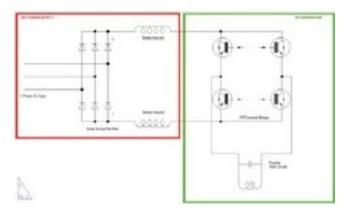


Figure 2: Current fed inverter with parallel load

2.2 Parallel Resonant Inverter

The topology dual with respect to previous one is the parallel resonant inverter, presented in figure 2. A rectifying bridge supplies a CF inverter and a parallel resonant oscillator is considered. A big inductor is inserted between bridge and inverter, required to change the dynamic behaviour of the power supply and make it a current generator.

The inductance normally is big and heavy, thus resulting in a non compact design: at least for high power design two cabinets are required, one for the input stage and one for inverter and oscillator.

The inductance limits the current in case of short circuit, so the inverter is intrinsically protected. Furthermore, the impedance of generator and load are equivalent, so no transformer is needed and the efficiency can increase.

From the control point of view, the input stage (thyristor bridge or chopper) is used to regulate the power by varying the switch conduction time, while the inverter is modulated with a frequency as close as possible to the natural resonance one with duty-cycle 50% and superposition time.

3 Design of the inverter

In the following, the design of the inverter will be analysed starting from the choice of the best solution.

3.1 Design Topics

The goal is the design of a flexible inverter, to be adopted in different induction heating applications, such as hardening, welding, etc. This means that the working frequency must move from 200kHz up to 500kHz, and the coil output voltage should be higher or lower according to the application. In particular, for hardening normally the maximum voltage is around 400V rms, while for welding the maximum voltage may be higher than 1,000V rms depending on the production line. Furthermore, the power requirements are different: generally lower power is necessary in hardening (maximum 150kW for high frequency applications), while in welding higher levels are needed (up to 600kW or more).

3.2 Preliminary Analysis

The analysis of the requirements presented above brings us to the development of a modular solution, where the core will be an elementary "brick" that will be properly composed. The power of each module will be around 30kW to limit their number when the power increases.

The working frequency is high, so a comparative evaluation of power switches must also be performed. As well known, MOSFETs and IGBTs are the type of switches available on the market: different types have been compared considering electrical characteristics (voltage, losses, etc) and size in order to get the power with a module of limited dimensions.

The component choice is the MOSFET to get the wide frequency range; several devices in parallel are required since the low size standard package switch adopted.

The last evaluation regards the topology. Because of the desired extended application, the best solution is the CFI with parallel resonant load. In fact, due to the active input stage, both voltage and current are controllable, thus assuring the process repeatability required in hardening (and not reachable with a VFI where the voltage is uncontrolled and depends on line variation).

3.3 Design Development

In the CFI topology, the basic switch is a unidirectional one, so a fast recovery diode is placed in series of the active device to have a one-way current path.

The power components are arranged in a specifically designed mechanic, useful both for structural and electrical purposes. A deep layout analysis has been taken to get an equal component



stress. In particular the current of each device has been measured by a small Rogowsky probe and verified by some thermal images. The starting situation is shown in figure 3.

Figure 3: Current measurement

It can be noted that the temperature is not equally distributed, due to an unbalanced current division among the transistors. Of course, when a number of devices are parallelised, the optimal situation is obtained when the current flowing in each of them is 1/n of the total current. In figure 3, five MOSFETs are visible: an unacceptable current difference (of about 40% between the components) has been verified.

To reduce the unbalancing to less than 10% a strong effort has been made to reduce all the parasitic inductances and commands delays through an optimised PCB design.

The power connections are integrated in the mechanic, while the communication to the control board is made through optic fiber to avoid possible disturbances.

The standard load is a resonant parallel. As discussed above, the optimum exploitation is achieved by working as close as possible to the natural resonance of the load itself. This is performed by a closed loop control made by the digital supervising board shown in figure 6.

ARTICLE

The working frequency is real time calculated to adapt transistor firing to the real operating conditions, thus avoiding the break of the device SOA. If the frequency is not correct, in fact, voltage spikes may occur, leading to a device failure.

The supervising board not only manages the inverter control, but is also involved in fault decoding and power regulation.

3.4 Design validation

The design validation is particularly related to the evaluation of the module losses, to verify the efficiency and the water cooling requirements.

Input power has been directly measured (DC voltage and DC current). System losses have been estimated by measuring input and output water temperature and the water flow through the equation

$P = flow \cdot \Delta\theta \cdot 4186.8$

where the power [W] is obtained by using the flow in [l/sec] and 4186.8 [J/kg K] is the water specific heat.

The trial has been carried out with a load having a natural resonance frequency of 400kHz, to take into account the maximum of the switching losses.

The results are reported in table 1 for some testing points.

It can be noted that in each condition the efficiency is higher than 90%, increasing at the increase of input power. The experimental results confirm the calculation made starting from the datasheet parameters and adopted in the design step.

Figure 6: Digital supervising board



V _{DC} [V]	50	66	82
I _{DC} [A]	100	130	160
P [kW]	5	8.6	13.1
θ_{in} [°C]	26	26.7	27.9
$\theta_{_{out}}$ [°C]	28.2	30	32.6
P _{diss} [kW]	0.49	0.79	1.04
η	0.9	0.91	0.92

Table 1: Results of the calorimetric tests

An oscilloscope acquisition of the voltage across a basic switch is presented in figure 8.

It can be noted that the frequency is around 330kHz and the amplitude of the spikes (located where the commutation happens) is limited, thus avoiding transistor failures.

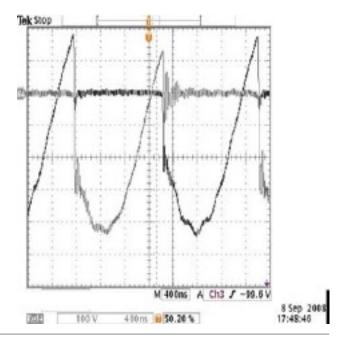
3.5 Module Connection

The module flexibility is related to having different connections according to the considered application. In particular the voltage may vary to get a proper level.

If low output voltage (400V) is required, as in hardening, a single bridge configuration can be used, with a certain number of modules in parallel to achieve the power.

If high output voltage (1,000V) is required, a double bridge configuration is used, thus doubling the output value. Again a proper number of couples of modules has to be put in parallel to achieve the power. If a further voltage boost is required, it can be obtained by using a specifically designed capacitive divider.

Figure 8: Waveform of the voltage across the switches



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4 Working plane and output circuit

The optimal exploitation of the power supply is obtained when the load is properly coupled to the inductor. It means that the percentage of voltage and current grows together: it is the unique situation that lets the full power be reached. The situation is represented in figure 9.

The ideal load line is the best working situation; other working points are of course possible but the full power is not obtainable. The generator has a wide working zone, composed by the white one and the dotted one. The dotted one is a not warning zone, because the current percentage is higher than the voltage one, so this means a load mismatch. The crossed zone is prohibited, to preserve the generator (that could work with one half of the voltage and the full current) and limit the power factor reduction due to thyristor bridge slicing.

The working plane discussed above is strictly related to the definition of the output circuit and its complexity.

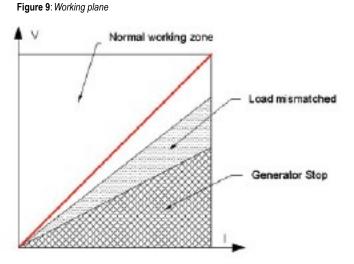
A welding pipe line, where a wide production range is required (ie from diameter 25mm up to 76mm) is a good example to be considered.

The simplest output circuit is obtained by directly connecting the capacitor tank to the output coil. This seems to be not very flexible, because changing the coil is the only way to move the working point when the load changes.

This requires a proper coil design (a proper coil is made for each pipe diameter) to have an effective process but a flexible generator is needed. In fact the working frequency may vary and the inverter must have a wide frequency range in order to follow that variation.

Other solutions consider the insertion of reactors between the capacitor bank and the output coil, as presented in figure 10.

Inductances Lp and Ls are variable reactors that are mechanically moved: Ls is used to make the right voltage drop to achieve again the load matched situations when the load changes, while Lp, whose value is very high with respect to Ls, is used to limit the frequency variations.



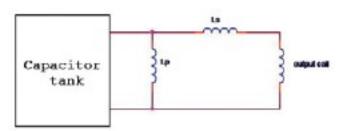


Figure 10: Complex output circuit

It can be easily understood that the load adaptation is obtained in a dissipative way: in particular Ls is passed through all the reactive current, so its losses have a deep impact on the overall efficiency.

Furthermore, considering again a welding pipe line, a fixed frequency is not required, so Lp should be avoided.

So, if the resonance is made directly from the capacitor bank and the output coil, a higher efficiency is achieved thus reducing the power consumption at equal production terms.

5 Industrial application

The module-based inverter has been tested in different situations. In hardening applications normally high frequencies are required for small parts. A 30kW 400kHz generator (where only one module is adopted, due to discontinued operation) has been manufactured for a gear fork. The output cabinet containing the inverter is shown in figure 11.

The right inductor design allows to work in matched conditions; as an example, the cycle of one of the pieces to be treated required a voltage of 70%, a current of 70% (that is 50% of power) for a very short time (around 3 seconds).

Figure 11: 30kW hardening generator



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Figure 12: Welding output head

The module paralleling has been tried in a high power generator for pipe welding. The production range is from diameter 76mm up to 152mm with thickness from 1 to 5mm. Considering the mill speed, the power requirement is around 450kW and the optimal frequency is 330–370kHz. The output head is presented in figure 12.

Some data read during the welder starting test is proposed in table 2.

Pipe [mm]	Speed [m/min]	% volt	% curr	% pow	% freq
102x3	55	72	75	55	74
76x4	53	78	80	62	74

Table 2: Report of the welding test

In both cases, the load is practically matched: the result has been obtained by changing the coil diameter (from 150mm to 115mm). The frequency is constant at 330kHz.

6 Conclusion

The main characteristics of a novel modular power supply system have been presented with reference to the topology, the choice of electronic components, the control system and the role of load matching.

After a brief presentation of the main advantages and drawbacks of this system, some real experimental data demonstrates the feasibility and reliability of this power supply for two different applications: high frequency induction hardening and induction tube welding. This new modular approach to the power supply is a very effective solution to satisfy a wide range of load requirements, from low to high voltage at high frequency, avoiding the use of transformers or reactors between capacitor banks and output coil and thus increasing the overall efficiency.

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Gräbener Maschinentechnik GmbH & Co KG	47
Gräbener Maschinentechnik GmbH & Co KG Guild International	47 55
Gräbener Maschinentechnik GmbH & Co KG Guild International Gullco International Ltd	47 55 26
Gräbener Maschinentechnik GmbH & Co KG Guild International Gullco International Ltd Haeusler AG Duggingen	47 55 26 41
Gräbener Maschinentechnik GmbH & Co KG Guild International Gullco International Ltd Haeusler AG Duggingen Han Sum Enterprise Co Ltd	47 55 26 41 81
Gräbener Maschinentechnik GmbH & Co KG Guild International Gullco International Ltd Haeusler AG Duggingen Han Sum Enterprise Co Ltd Hebei Wenlong Pipeline Equipment Co Ltd	47 55 26 41 81 59
Gräbener Maschinentechnik GmbH & Co KG Guild International Gullco International Ltd Haeusler AG Duggingen Han Sum Enterprise Co Ltd Hebei Wenlong Pipeline Equipment Co Ltd Hebei Xinghao Pipeline Equipment Mfg Co Ltd	47 55 26 41 81 59 65
Gräbener Maschinentechnik GmbH & Co KG Guild International Gullco International Ltd Haeusler AG Duggingen Han Sum Enterprise Co Ltd Hebei Wenlong Pipeline Equipment Co Ltd Hebei Xinghao Pipeline Equipment Mfg Co Ltd Hisen Enterprises Co Ltd	47 55 26 41 81 59 65 21
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Siemens VAI	54
Sikora AG	3
SMACO (M) Sdn Bhd	71
SME – Fabtech 2010	131
SMI – Sistemi Meccanici Industriali Srl	100
SMS Meer GmbHInside	Back Cover
SMS Meer GmbH Inside Soco Machinery Ltd.	Back Cover 91
SMS Meer GmbHInside Soco Machinery LtdSofratest	Back Cover
SMS Meer GmbHInside Soco Machinery Ltd Sofratest Somo Produzione SpA	Back Cover 91
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SMS Meer GmbHInside Soco Machinery Ltd Sofratest Somo Produzione SpA SST Forming Roll Inc Steelcraft Tool Company Stiefelmayer-Lasertechnik GmbH & Co KG Suraj Stainless Ltd	Back Cover 91 38 111 29 67 46 25
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SMS Meer GmbHInside Soco Machinery LtdSofratest Somo Produzione SpASST Forming Roll IncSteelcraft Tool Company Steelcraft Tool CompanySteifelmayer-Lasertechnik GmbH & Co KGSuraj Stainless Ltd Tanitec CorporationT-Drill Oy Tezet Technik AG	Back Cover 91
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SMS Meer GmbHInside Soco Machinery Ltd Sofratest Somo Produzione SpA SST Forming Roll Inc Steelcraft Tool Company Stiefelmayer-Lasertechnik GmbH & Co KG Suraj Stainless Ltd Tanitec Corporation T-Drill Oy Tezet Technik AG Thermatool Corporation Thermatool IHWT TMK Group	Back Cover 91 38 111 29 67 46 25 106 35 63 Back Cover Back Cover 104
SMS Meer GmbHInside Soco Machinery Ltd Somo Produzione SpA SST Forming Roll Inc. Steelcraft Tool Company Stiefelmayer-Lasertechnik GmbH & Co KG Suraj Stainless Ltd Tanitec Corporation T-Drill Oy Tezet Technik AG Thermatool Corporation Thermatool IHWT TMK Group Tong Da Precision Enterprise Co Ltd	Back Cover 91 38 111 29 67 46 25 106 35 63 Back Cover Back Cover Back Cover 104 102
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SMS Meer GmbHInside Soco Machinery Ltd	Back Cover 91 38 111 29 67 46 25 106 35 63 Back Cover Back Cover 104 25 63 63 63 63 63 63 64 25
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World Class Steel & Mining Company Relies on Thermatool



Barry Graham Maintenance Manager

EVRAZ CAMROSE WORKS is a leading manufacturer of API pipe and casing products for the oil and gas industry.

When they needed to invest in high performance equipment for their mill, EVRAZ selected Thermatool variable frequency technology.

"Since installation of the new Thermatool 500kW variable frequency contact welder, we have seen many benefits of true variable frequency welding including; superior I.D. flash condition, better heat penetration and weld quality based on steel grades, and better control in the HAZ (Heat Affected Zone). Thermatool provides the tools and support to keep us ahead of our competitors."

Thermatool HAZControl Technology[®] Welders -Re-defining the HF Welding Process.

GROUP

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THERMATOOL

Leading Manufacturers of Melting, Thermal Processing and Production Systems for the Metals and Materials Industry Worldwide.

Fine Tubes: more credits, no crunch

Fine Tubes, a UK manufacturer of stainless steel, nickel and titanium tubing in seamless and welded, has been awarded D&B's 'Rating 1' for its 'highest level of creditworthiness' and 'minimal risk of failure'.

Despite economic turbulence and the frequently quoted 'credit crunch', Fine Tubes' Rating 1 status officially places it among the UK's top 15% of companies. The score represents the highest level of creditworthiness and a minimum risk of failure according to business reporting firm Dun & Bradstreet (D&B).

"The D&B rating is recognised internationally," explained Nicky Keyworth, customer experience leader at Dun & Bradstreet, who personally handed over the certificate to Fine Tubes. "It is a dynamic score which is reviewed with the most current data on an ongoing basis, and Fine Tubes have consistently performed at this highest level for more than the past 12 months. D&B ratings consider financial stability, the company's payment record, public filings, trade payments, business age and other factors to produce one of the most comprehensive reports on a company's creditworthiness that exists anywhere in the world."

Marshall Davis, chief financial officer at Fine Tubes, commented, "A D&B rating can assist or prevent a business from receiving a loan or an extension to a line of credit. It can also cause investors to vanish or panic, suppliers to cease shipments or vendors refuse to stock products. In other words keeping a good Dun and Bradstreet rating is essential to the good operation of any business. To have achieved 'low risk, high creditworthiness' status during one of the worst economic times in recent years is fantastic accomplishment."

Fine Tubes has a fully integrated facility of over 215,000ft² for the manufacture, research and development of precision tubes in seamless, welded, welded and drawn forms. The standards and specifications for these tubes and coils are aimed at niche applications in the most hostile operating environments. Fine Tubes products serve a wide range of markets such as the oil & gas and chemical process, aerospace, medical, and nuclear industries.

Fine Tubes Ltd – UK sales@finetubes.co.uk www.finetubes.co.uk

Tenova Pyromet and GLPS in DC Furnace Agreement

TENOVA Pyromet and GLPS Project Management & Engineering Services have joined forces to offer DC Furnace Technology worldwide to the ferroalloy and base metals markets. Tenova Pyromet and GLPS each provide a range of services, technology and experience which together combine to provide a unique and comprehensive service to customers seeking smelting furnace technology. Tenova Pyromet and GLPS foresee that the unique benefits provided by DC Furnace Technology for the production of ferroalloys and base metals will ensure the growth in demand for this technology.

Tenova Pyromet has a proud heritage based on the successful development, design, supply, erection and commissioning of electric smelting furnaces to the ferroalloys and base metals industry over the past 67 years. This in-depth knowledge and understanding of the ferroalloy and base metals smelting process and technology has resulted in an extensive track record of successful projects. The global presence provided by the network of Tenova Group offices, located in all five continents, provides Tenova Pyromet with knowledge of local business practices, a worldwide procurement network, world class fabrication workshops in China and real time service to customers. Tenova Pyromet has the project management expertise to implement projects ranging from green and brown field lump sum turnkey projects in South Africa through to supply, supervision and commissioning anywhere in the world, for example, current and previous projects in Russia, China, India, US, Europe, Australia and Africa.

GLPS, established in 1993, has been extensively involved in DC Furnace Technology development and implementation. This experience and innovative design has lead GLPS to develop and patent their world leading DC Furnace Technology. This technology has been successfully applied to furnaces ranging in capacity from 10MW to 60MW. GLPS is unique in its capability to provide this proven experience in DC Furnace Technology for ferroalloy production. Furthermore, GLPS has extensive experience in providing professional project management, engineering and design services to the smelting industry.

The CEO of Tenova Pyromet, Paolo Argenta, stated "We are very pleased to have GLPS as our partner as their DC Furnace Technology is well recognized in the industry plus they have a proven track record. This co-operation agreement between Tenova Pyromet and GLPS provides our customers with the unique opportunity to benefit from the combination of leading DC Furnace Technology with our extensive process, furnace and project implementation experience. We have several potential DC Furnace projects in the pipeline so we are hitting the ground running in this exciting new venture."

The CEO of GLPS, Freddie Greyling, stated: "We believe that this partnership will substantially benefit both companies by exploiting the strengths of each of the stakeholders to offer industry the optimal solution to their requirements. Industry has recognised that AC and DC furnaces in combination ensure a well-balanced plant since the two technologies complement each other. As a team we are now in a position to offer industry an unbiased evaluation of technology options to ensure that the client has the optimal solution available. We are thrilled with the opportunities that have already materialized through this partnership and look forward to working with Tenova Pyromet on this new venture as we share the same passion to develop and provide industry with world leading smelting technology."

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Tenova to supply a new line to steel authority of India

TENOVA Strip Processing has recently received an order from SAIL (Steel Authority of India) for a Tension Leveling and Inspection Line for the Bokaro steel plant, in the Indian state of Jharkhand. The project will be executed on a turnkey basis in Consortium with Mumbai's Multiform now part of Tenova Group, and Kolkata's Sunag Engineering, in charge for local supplies and services.

The line, expected to be commissioned within 24 months, will treat steel coils of 30 tons in weight, widths of 800-1560 mm, thicknesses of 0.25-2.0 mm, at the considerably high process speed of 500 m/min, for output of 550,000 t/year. The line will improve the physical characteristics of the carbon steel skin-passed coil and will be equipped with a tension leveler and a side trimmer based on Tenova advanced technology together with an automatic inspection system, to turn out coils of the highest quality suitable for sale on the international marketplace.

Tenova's contract is a part of the Indian steel producer's plans for a new cold mill complex (1,200,000 t/year production) inside Bokaro ambitious expansion program to raise its plant production capacity and diversify its value added products.

Tenova – Italy Fax +39 02 4693026 Email: tenova@tenovagroup.com Website: www.tenovagroup.com

McElroy University offers new productivity course

MCELROY University, the training division of McElroy, recently announced the addition of a productivity-focused class to the 2010 class schedule. The inaugural class will take place May 17, 2010. Registration is currently open for the class.

For more than 30 years, McElroy has been the only pipe fusion machine manufacturer to continuously offer advanced training to enhance fusion technicians' efficiency, productivity and safety in the proper use of machines and standards. McElroy University currently offers 23 classes per year at McElroy's technical center in Tulsa, Okla. McElroy University also conducts training in the field at various locations throughout the world.

The classes cover topics from operation, troubleshooting and rebuilding fusion machines, ranging from small to large diameter pipes and fusion machines. With the addition of the new Fusion Productivity and Project Management class, McElroy University will offer a total of 10 different courses to the public. Classes usually occur over the course of a few days.

The new Fusion Productivity and Project Management course covers planning fusion projects. Topics include what equipment would work best in certain situations, setting up job sites for optimal productivity and integrating productivity-enhancing tools into a job site plan. As with all McElroy University classes, the majority of the training is hands on, with a small portion occurring in the classroom.

"This new productivity class was created in response to many of our end users, who are seeking to do more with less," said Larry Gordon, manager of training at McElroy. "If we can teach more fusion technicians the best way to set up their job site, and work efficiently within that job site, it's going to be much better for pipe fusion. The process is already fast, and with our techniques, contractors can definitely meet and beat more deadlines."

The class parallels McElroy's growing productivity tool line. The line of products, which includes the PolyHorse, PolyPorter, MegaMc Pipe Stands and much more, continues to grow each year. The company usually designs and builds productivity tools out of demand from customers' needs.

McElroy – UK Email: E-mail: thenning@mcelroy.com Website: www.mcelroy.com

Technip awarded two contracts for the Visakh refinery in India

TECHNIP has been awarded two contracts by Hindustan Petroleum Corporation Ltd. (HPCL) for their diesel hydrotreater project in the Visakh refinery, on the east coast of India.

The two contracts, which are scheduled to be completed by the first half of 2012, will be executed by Technip's operating center in New Delhi, India.

The first, worth approximately €50 million, covers the license as well as the engineering, procurement, construction and commissioning (EPCC) for a hydrogen generation unit with a capacity of 36,000 tons/year.

The second contract, worth around €65 million, is for the EPCC of a diesel hydrotreater unit with a capacity of 2.2 million tons/year.

Technip – France Email: adanjou@technip.com Website: www.technip.com

Imatek makes first sale into Russia

IMATEK has recently installed a 30,000J DWT40-30, Drop Weight Tear Tester (DWTT) at Ural Steel in Novotroitsk, Russia. The DWT40-30 replaces an older machine and will be used to test the fracture properties of steel used in the manufacture of large diameter pipe for the oil and gas industries

This is a significant installation for Imatek as it represents the company's first sale into Russia following the appointment of new distributor, Uralsibpromservice (USPS) based in Chelyabinsk. Ural Steel is a subsidiary of the holding company Metalloinvest and is the largest enterprise in the South Ural region and one of the eight leading metallurgical integrated works in Russia.

The Company was founded in 1955. Today, Ural Steel is a significant niche steel producer, holding the top market position in production of strips, tube billets, bridge steel, machinery construction steel and billets for exports.

The products of Ural Steel are highly demanded in Russia and the CIS as well as on the international markets. Customers include leading enterprises from such countries as Russia, Germany, UK, Italy, Spain, Belgium, Norway, Denmark, Turkey, Iran, China, Korea, Vietnam, Taiwan and Thailand.

The use of higher grade steels in the oil, gas and manufacturing industries is creating the need for a new generation of specialist Impact Testers. Imatek offer a range of DWTT systems 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 high-quality instrumentation and analysis software that provides detailed 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 significant benefit when testing the

tougher X-steels. Instrumentation enables crack initiation, and most importantly crack propagation energies, for the specimen to be determined which is considered a better measure of 'in-use' performance for these steels than visual assessment of the fracture surface.

Imatek is a leading UK based manufacturer of materials testing equipment primarily in the fields of impact testing. Imatek's products are used all over the world to test the properties of materials, components and assemblies in industries such as aerospace, polymer processing, steel production, automotive and academic research.

Imatek Ltd – UK Fax: +44(0) 1438 829054 Email: Info@imatek.co.uk Web: www.imatek.co.uk

Radar station gets emergency power upgrade

PIPE Center has supplied specialist fuel pipe for a new emergency power system at Stornoway radar station on the Isle of Lewis, off the West coast of Scotland.

The Durapipe PLX pipe is being used as part of a refurbishment of the National Air Traffic Service (NATS) radar facility, which monitors and controls aircraft and collects weather data.

The emergency power system is designed to provide vital back-up in the event of mains electrical failure, to ensure the safety of domestic and international airplanes.

The refurbishment is part of a £127m programme to replace and upgrade the entire NATS radar network by 2012. The installation was carried out by Ness Engineering, which undertakes specialist engineering and construction projects throughout Scotland's highlands and islands.

Durapipe PLX pipe was specified to transport diesel oil from the storage tank to the stand-by emergency generator, as it meets critical requirements for integrity and reliability. It replaced existing steel pipework installed previously.

Available in sizes 32mm and 160mm, Durapipe PLX secondary contained systems have exceptional resistance to rapid crack propagation and long-term stress cracking. PLX is also highly cost-effective and much easier to work with than traditional metal alternatives

Pipe Center also supplied Ness Engineering with a bespoke railing system for the fuel pipework support structure. Lindsay Crockett of Pipe Center's Glasgow branch, which handled the order, said: "Ness Engineering sent us outline drawings for the project. We worked closely with Durapipe to assess the materials and component requirements and ensure everything was delivered on time – including a 6.30am ferry trip to the island!"

The design chosen was based on a dual containment pipe system. This has a primary inner fuel pipe running inside a larger outer pipe that encloses the primary inner pipe. In the unlikely event of a rupture, fuel flowing through the primary pipe is securely captured and delivered to the generator, ensuring continuous power supply to the radar station.

Key to the design is the use of electro-fusion jointing technology, used to bond pipe together. This uses an electrical heat induction process to create a simultaneous bond of both inner and outer pipes, to form a completely enclosed fail-safe system.

Components and jointing equipment, some sourced from Italy, were supplied to site via the early morning 6.30am ferry from the mainland to Lewis, arriving at Stornoway in time for work to begin.

Commenting on the project, David Williamson from Ness Engineering Ltd said: "This refurbishment of the emergency power supply was a large part of our development at Stornoway this year, and we required a product that we could be certain would deliver quality and reliability in the case of an emergency. "We found the quality of Durapipe PLX excellent and were particularly impressed with the superb customer service we received during the project itself, as well as the after care and communication. We look forward to working with Pipe Center and Durapipe UK again in the future."

Following the success of the project, Pipe Center has orders for seven similar emergency power refurbishment projects in the pipeline.

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Lincoln Electric's automated welding robot to be featured in movie sequel

A LINCOLN Electric LINCOLN Electric automated welding robot cell, featuring a Lincoln Electric Power Wave® i400 welding power source and a FANUC® ARC Mate® 100iC robotic arm, will co-star in the movie sequel, Iron Man 2. Lincoln Electric's welding equipment and consumables were used by actor Robert Downey Jr.'s character, engineering genius Tony Stark, to fabricate his superhero suit in the film.

"Being involved with the film was truly an incredible experience," said Brian Simons, robotic programmer of the Automation Application Group at Lincoln Automation. "Responding to immediate client needs at Lincoln prepared me to react on the studio's set at a moment's notice. This was great exposure for Lincoln to demonstrate the level of technology involved in welding today." The original film, Iron Man, made more than \$117 million at the box office in its first two weeks. Lincoln Electric MIG and TIG welding equipment was also featured in this film.

The sequel is anticipated to be another box office success. In addition to Downey and Gwenyth Paltrow's character, Pepper Potts, the film stars Mickey Rourke as villain Ivan Vanko, aka Whiplash, Scarlett Johansson as Natasha Romanoff or the Black Widow and Samuel L. Jackson as Nick Fury. As a takeaway, Downey and director of the original film as well as the sequel, Jon Favreau, autographed the Power Wave® i400 and the robotic arm used on the Iron Man 2 movie set. The complete automation welding cell is currently on display in the lobby at the Lincoln Electric Automation Division in Cleveland.

Lincoln Electric is a leader in the design, development and manufacture of arc welding products, robotic arc welding systems, plasma and oxyfuel cutting equipment and has a leading global position in the brazing and soldering alloys market.

Lincoln Electric – USA Website: <u>www.lincolnelectric.com</u>

New Wilkinson welding academy offers the latest in training for welders

SECRETARY of State for Business, Lord Mandelson, officially opened the Wilkinson Welding Academy, a 'state of the art', purpose built, hands-on practical welder training and welding theory training centre as part of Wilkinson Star Limited, the Worsley, Manchester based industrial equipment supplier's, strategy to further develop the welding skills needed in to-day's industrial manufacturing for their distributor partners as well as their customers.

The Academy has 12 acoustic welding booths incorporating both high vacuum and low vacuum fume extraction systems, whilst equipment will include the very latest Cebora inverter based MIG, TIG and MMA welding products, including the recently Thatcham certified single phase Jaguar Double Pulse MIG Inverter as well as high definition plasma cutting equipment and a 5-axis robot welding cell to demonstrate the processes and speeds that can be obtained on repetitive component welding. All the equipment will have the latest electronic process controls.

A number of standard and tailored training modules are now available including Health and Safety in welding, Electrics and Power supply requirements, MIG/MAG welding, TIG welding, MMA welding, plasma cutting, resistance welding plus modules on advanced MIG and TIG welding processes including pulse and double pulse welding, Synergic pulse welding and MIG brazing especially for the Automotive and Furniture manufacturing industries.

The introduction of inverter based welding machines with new high technology process controls has increased the demand for welding high quality repetitive welds on components including utilising new high strength yet lightweight materials as found in automotive manufacturing and repair. Training at the Academy will give experienced and less experienced welders the opportunity to learn and use the latest equipment and see how user friendly the equipment really is, helping to eradicate some of the myths surrounding high technology equipment.

Dr John Wilkinson OBE Chairman, Wilkinson Star Ltd said: "In order to fulfil the needs of to-day's automotive, industrial and fabrication markets, to obtain and retain the necessary skills required our new Welding Academy is well positioned as one of the most advanced and best equipped in the UK. Our fully qualified trainers have many years of practical welding experience, which will be invaluable to the trainees."

At the opening, Lord Mandelson said: "The Wilkinson Welding Academy is a model of what everybody should be doing in Salford, the North West and across the country."

Wilkinson Welding Academy - UK

Water experts ensure new pipeline remains on track in Glencoe

WATER quality engineer Panton McLeod has played a vital role in ensuring a major new pipeline remains on-track in the Highlands.

The Borders-based firm, which cleans, inspects and repairs structures used in the UK drinking water industry, was called to sterilise a new mountain pipeline in Glencoe that will help provide drinking water for thousands of people in the region.

The project saw Panton McLeod disinfect and sterilise a 29km section of pipe to prepare it for service. The section is part of a wider pipeline network stretching across the mountains above Fort William that links a new pump house at Glen Nevis with the existing water mains in Glencoe.

Paul Henderson, Panton McLeod's operations director, said that the project had been particularly challenging due to the adverse weather conditions and the high altitude of the pipeline.

He added: "There were some very steep tracks leading up to the areas along the highest sections of the pipeline, so we needed to have our best 4x4 vehicles on hand to get the team into position to carry out the disinfection work.

"We were also battling the elements, as there was a lot of snow and ice on the ground at that altitude and this made the conditions very challenging. However, our team is used to working in all kinds of weather and is capable of performing well even when the odds are against us.

"We were able to use all of our years of expertise in the water sector to ensure that the whole section of pipeline was disinfected thoroughly, allowing it to be put into service on time. This new Glencoe pipeline will assist in providing drinking water supplies for customers in the region and cope with added demand, so it is a very important project to have been involved with.

"I'm very proud of all of the Panton McLeod team that worked on this pipeline, as they once again showed they are able to perform to the highest standards even in the most challenging of conditions.

"We're also delighted to provide our services once again for Scottish Water and helping ensure that customers in Scotland continue to enjoy the freshest supplies of drinking water at their taps."

The project is the latest high-profile work that Panton McLeod has completed for Scottish Water. For the past 15 years, the firm has provided expertise in cleaning and repairing water structures across Scotland – which has included contributions to some of the biggest water projects Scottish Water has undertaken, such as the £120 million Loch Katrine scheme.

Earlier this year, the firm agreed a new deal with Scottish Water - arranged as part of an ongoing Price and Supply Agreement – that will see it clean and disinfect more than 400 service reservoirs and water tanks across the Ness, Don, Tayside and Ayrshire regions, helping to further improve water purity for customers in Scotland.

Panton McLeod is one of the best-known names in the water industry, working with the biggest companies on the inspection, cleaning and repair of drinking water structures.

In the past decade, the firm has grown from its headquarters in Newtown St Boswells adding further offices in Nottingham and in the US. The US base in Denver, Colorado, is the hub for its North American division Panton McLeod Americas - which is currently revolutionising the way drinking water storage and treatment structures are cleaned and disinfected across the USA.

Panton McLoud – UK Fax: 01835 822 919 E-mail: info@pantonmcleod.co.uk Website: www.pantonmcleod.co.uk

TRUMPF announces territory expansion for Hegman Machine Tool

TRUMPF Inc has announced that Hegman Machine Tool Inc is now the exclusive representative for Trumpf products for the entire State of Wisconsin, US.

The company has long covered Nebraska, Western Iowa, Minnesota, North Dakota, South Dakota and Western Wisconsin for Trumpf, and now the distributor has added the remainder of Wisconsin and the Upper Peninsula of Michigan to the territory it represents for Trumpf.

Hegman Machine Tool Inc is a privately held Twin Cities-based machine tool distributor that promotes high quality machine tools and provides a combination of services and support.

"We have been in business for more than 27 years and are excited at the prospect of working with the many exceptional companies located in the Eastern portion of Wisconsin and Michigan's Upper Peninsula," said Ralph H Hegman, president. "Our accomplishments over these past many years have been because our customers have been so successful with our Trumpf machines and automated systems."

Trumpf Inc – US Fax: 860-255-6424 Email: melanie.mcmillan@us.trumpf.com Website: <u>www.us.trumpf.com</u>

Germaine Gibara, member of Technip's board of directors, passes away

It is with deep regret and sorrow that Thierry Pilenko, Chairman and Chief Executive Officer and the Board of Directors of Technip announce the death on April 21st, of Germaine Gibara, Member of the Board of Directors, Chairman of the Strategic Committee and Member of the Nominations and Remunerations Committee of Technip.

They extend their sincere condolences to her family and friends. "Germaine joined Technip's Board in 2007 and brought to the company her strong financial expertise and understanding of strategic analysis. We will all miss her team spirit, friendship and multicultural experience" added Thierry Pilenko.

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PowerSeries shows top-class performance at the Wittamann Battenfeld Competence Days 2010

VISITORS from more than 30 countries accepted the Wittmann Group's invitation to attend the Competence Days 2010, which took place on 28 and 29 April in Kottingbrunn (Austria). "Simply the Best" was the motto, under which experts of the Wittmann group presented latest innovations and process technologies to interested trade visitors. The total of 1,000 visitors, thereof 700 customers, exceeded the organisers' expectations for the Competence Days.

In addition to its newly developed PowerSeries range with the EcoPower, MacroPower and MicroPower series, Wittmann Battenfeld presented exhibits from the HM and Vertical machine series, while Wittmann showed its latest developments in the area of peripheral equipment – robots, granulators, dryers and temperature controllers. Since the merger of Wittmann and Battenfeld in 2008, it has become possible to fully implement the corporate philosophy of "everything from a single source". During the Competence Days, this was demonstrated once more with a total of 70 exhibits from the areas of injection molding, automation and peripheral equipment.

Several introductory presentations gave the guests an overview of the latest developments in injection molding and process technology.

The series of presentations was opened by a guest speaker from the Kiska design agency (Austria) talking about "Plastics and Design". The subsequent speeches about the PowerSeries demonstrated the efficiency of the new machine series to the visitors. Finally, the energy-saving potential of the new injection molding machines was discussed in detail under the heading of "Energy- and cost-efficiency" – a topic of special interest both from an economic and an ecological point of view.

Wittmann Battenfeld is also breaking new ground in the area of process technology. The combination of water injection and projectile technology has opened up new possibilities in injection molding; the latest achievement in process technology is a process by the name of BFMOLD[™] technology, which was presented to a broader public for the first time as one of several highlights at the Competence Days.

This variothermic mold tempering technique has been developed by Kunststoffinstitut Lüdenscheid and is marketed exclusively by the WITTMANN group. BFMOLD[™] enables the production of parts with high-gloss surfaces without sink marks, warpage or joint lines, and even within shorter cycle times in some cases. The temperature control function in this process is taken over by the WITTMANN multi-circuit tempering unit TEMPRO plus C VARIO, specially developed for this purpose.

The series of presentations was concluded by a speech about the latest developments in WITTMAN robots and special equipment in automation technology.

Optimal solutions for complete production cells tailored to every application can be put together from an extensive choice of components. During the subsequent machine demonstration, the visitors were able to experience the high performance and efficiency of the injection molding machines and peripheral equipment themselves – live on site. The performance show was opened with a show program, in the course of which the new MicroPower and MacroPower machine models were officially unveiled.

The MacroPower injection-molding machine with 800 tons clamping force proved its efficient productivity by manufacturing a dryer center part (with a mold supplied by Coko Kunststofftechnik). The machine concept geared to user benefit offered the advantages of minimal locking and high-pressure buildup times as well as a facility for extremely quick mold change.

The newly developed MicroPower proved to be of special interest for the visitors. This production cell is available with clamping forces of either 5 or 15 tons and consequently ideally suited to the production of micro precision parts and nano parts. At the Competence Days, the production of a micro plug with a part volume of no more than 0.0035 cm3 was demonstrated. Here, the part quality is checked and monitored by a camera integrated in the production cell and the machine's control system. The modular design allows for easy integration of a clean room module, to accommodate medical clean-room applications as well.

The servo-electric machines were represented by several units from the new EcoPower series. On an EcoPower 110/350, an LSR O-ring was produced in a 128- cavity mold supplied by Rico (Austria). With a 32-cavity mold from Schöttli (Switzerland), an EcoPower SE 110/350 produced a 2 ml barrel for medical applications. Another example from this series, an EcoPower 180/750, was shown producing a PP fitting formed in a mold from IFW (Austria).

An HM 180/1330, equipped with the new, energy-efficient ServoDrive drive concept, was presented with the production of a PA media duct. Here, a combination of water injection and projectile technology was used, with a mold supplied by IKV Aachen (Germany). Projectile technology enables constant duct cross-sections, smoother

inner surfaces and forming of special cavity geometries. This project was presented in cooperation with IKV Aachen.

As an example of COMBIMOULD multi-component technology, a two-component oil closure in Gram technology was manufactured in a double stack mold supplied by KTW (Austria) on an HM MK 300/2250H/525V. Here also, the new ServoDrive drive concept was demonstrated.

A TM Xpress 210/1350 injection molding machine gave an impressive demonstration of manufacturing a cup with 750 ml. The IML automation equipment used in this process, as well as the mold, all came from WITTMANN.

The complete range of WITTMANN peripheral equipment was on hand with the latest developments from every product group. Robots, dryers, granulators, metering devices, feeders, temperature controllers, chillers and flow regulators were all on display in the showroom.

WITTMANN automation equipment can be delivered with a great number of different functions. High-speed parts removal is one option, others are high-precision path planning via the TruePath function, or synchronization of several robots and conveyor belts.

Mag. Georg Tinschert, Managing Director of WITTMANN BATTENFELD, expressed great satisfaction with the obvious success of the Competence Days in Kottingbrunn: "We are the only supplier of complete solutions from a single source worldwide. The new products have met with a very positive response, and we can look to the future with great optimism".

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International Tube Association recruits nearly 100 new members at Tube Düsseldorf

THE 2010 edition of Tube may have effectively ended one day early because of the Icelandic volcano eruption but despite that the first four days were very successful for the International Tube Association (ITA). As a result of the exhibition the ITA signed up 95 new members, a record number for any single event.

A well-attended annual general meeting and members' lunch saw a number of changes in the ITA hierarchy. Professor Manabu Kiuchi was the 2010 recipient of the John C Hogg Lifetime Achievement Award for outstanding service to the association. He retired as ITA president but was accorded the title of Honorary Life President Emeritus. In the elections held at the AGM Gunther Voswinckel became ITA President and Tsutomo Nakata the new ITA Chairman. Retiring Chairman Albert SedImaier was elected Vice President (Europe).

During the members' lunch Stephen Loynes, Chairman of the Technical Management Committee, announced the ITA's 2010 speaker awards. The 2010 Professor Hugh Sansome speaker award and the speaker's shield were presented respectively to:

Winfried Heinemann of AWS Schaefer, Germany for his paper at the Pipe & Tube Istanbul 09 conference: "New generation of induction bending machines"

Hans-Joerg Braun of Reika, Germany for his paper, also at the Istanbul conference: "The latest generation of tube straightening machines - cost and quality improvements in tube finishing lines"

A highly commended award went to R Shahandeh, Urmia University, Iran, who was unable to attend the lunch, for his Istanbul paper: "Experimental and fem investigation on influence of ring stiffeners on buckling behaviour of subsea pipelines under hydrostatic pressure".

The Heinemann paper will be published in the next edition of the ITA's ITAN newsletter.

Anecdotal evidence from many ITA members suggests that Tube Düsseldorf 2010 resulted in a very healthy number of positive enquiries with clear signs that the global market is beginning to recover from the economic downturn of 2008/2009 and Messe Düsseldorf is to be congratulated for its efforts in attracting a high level of decision-making visitors to the trade fair.

International Tube Association – UK Fax: +44 1926 314755 Email: <u>info@itatube.org</u> Website: <u>www.itatube.org</u>

OMS appoints Richard Brown as products engineering manager

UK-BASED specialist measurement technology company Optical Metrology Services (OMS) Ltd is pleased to announce the appointment of Richard Brown as the company's Products Engineering Manager.

Based at OMS' UK office in Bishop's Stortford, Richard will head up the company's Tools Division, which is responsible for maintaining OMS' growing fleet of service tools used on inspection contracts in the UK and overseas. The Tools Division also manufactures custom inspection tools and software for specific inspection projects.

Richard returns to the UK from New Zealand, where he spent eight years working as a Product Development Engineer at Steelbro (NZ) Ltd, a manufacturer of self-loading trailers, mobile cranes and sidelifters.

Richard brings a wealth of experience in embedded control systems development, compliance and software architecture to OMS. In 2006, Richard won the IPENZ Excellence in Engineering Award for Electrical Systems for his invention, the SMARTlift, a microcontroller-based control system for sidelifters, which incorporates a novel safe working envelope control algorithm.

Prior to moving to New Zealand in 2002, Richard spent one year working as a consultant engineer for Optical Metrology Centre, a spin out business from City University London, which offered products and consultancy in 3D measurement using Photogrammetric techniques and pipe measurement using proprietary profiling tools.

Richard Brown commented: "Over the last few years, OMS has seen some quite outstanding business growth, particularly in terms of sales revenues from overseas markets. I want to help build on this excellent work."

"Eight years ago, I helped to design some of OMS' original pipe profiling tools, which have since gained acceptance as the gold Standard in pipe measurement. The opportunity to come back to OMS was too good to miss out on and I am very excited about the future and the new possibilities on the horizon for the company and its growing range of pipe inspection tools."

OMS is a specialist measurement technology company that provides measurement services and precision measurement systems to the oil and gas industry. A key focus for the company is in the dimensional measurement of oil and gas pipes or other similar structures such as aero engines, process industry tubes or manufactured cylindrical objects, where dimensions are critical.

OMS – UK Fax: +44 8700 940014 Email: denise@optical-metrology-services.com Website: www.optical-metrology-services.com

ITP Group system increases tube inspection throughput at PFW Aerospace

PFW Aerospace, Nuneaton, have installed four ITP Group Tube Inspection systems at their site to cope with the stringent inspection requirements of Rolls Royce Aero Engines.

On PFW's latest contracts, Rolls Royce only need supply 3D CAD models of tube assemblies – without the need for fixtures or drawings. PFW use the ITP Group Pipe Software to extract the tube and fitting data from the CAD model and then export the data to their tube benders and CMM's with no keyboard data entry required.

The ITP Group systems are used for initial tube inspection, fitting orientation and final pass-off.

Rolls Royce praised PFW Aerospace's achievements, stating that the integrated production system based around the ITP Group machines was groundbreaking, and that they had never seen the level of throughput achieved at any other company. This increase in capability has seen PFW's tube assembly production quadruple in the last 12 months.

PFW Aerospace Production Engineer Adam Treadwell said, "We could never have fulfilled the Rolls Royce contract without the ITP Group Systems. They're outperforming all other tube inspection systems within the group."

ITP Group Ltd – UK Fax. +44 1788 567 991 Email. b.clough@itpgroup.co.uk

Quaker Chemical capitalises on a "front-to-back" product portfolio in China's tube and pipe market

TUBE and Pipe capacity in China has increased fivefold in the past decade, with China producing nearly half of the world's tubular goods. This segment is a key strategic growth segment for Quaker. "We draw on our process expertise, proven solutions, and technology from around the world to act as a 'front-to-back' supplier of lubricants, coolants, and cleaners [for the front-end process], and a complete portfolio of rust preventives and final coatings at the back end," says Karl Kunkel, Quaker's Global Director of Strategy.

Currently, Quaker supports many Tube and Pipe customers throughout China. In the North, Quaker supplies a significant amount of welded pipe forming fluids, threading and hydrotesting fluids, and UV curable coatings. In the South, Quaker supplies water dilutable rust preventives, as well as threading and hydrotesting fluids. Quaker is looking to expand into China's seamless mills with both QUINTOLUBRIC[®] fire-resistant hydraulic fluids and customized hot rolling lubricants.

"We have established ourselves as a trustworthy and committed partner in China," comments Albert Ma, Business Director of Quaker Asia Pacific. "We are targeting growth within additional ERW forming lines, and UV-curable corrosion preventives. In particular, UV opportunities are a perfect fit for Quaker, as they give us the ability to work closely with customers on value-added projects – presenting a true win-win scenario."

Quaker has experienced great success in the global process chemical marketplace, thanks to its mission to Deliver Everywhere the Best from Anywhere. Currently, Quaker China has 10 satellite offices and employs over 200 people. Quaker's Asia/Pacific Headquarters are located in Shanghai, and include manufacturing, lab facilities (with 30 chemists, supported by Quaker's global R&D group), and office personnel. Throughout 2010, Quaker expects continued growth and expansion in China, both internally and in its customer base.

Quaker Chemical – US Fax: +1 610 8328682 Website: <u>www.quakerchem.com</u>

CRC-Evans welding equipment chosen for midcontinent express pipeline in USA

CRC-EVANS automatic welding equipment was selected for use on the Louisiana section of the Midcontinent Express Pipeline. Now completed, the 507-mile Midcontinent Express Pipeline is a joint venture of Kinder Morgan Energy Partners and Energy Transfer Partners, and delivers natural gas from Oklahoma, across northeast Texas, northern Louisiana, central Mississippi and into Alabama.

Two contractors worked on the Louisiana portion of the MEP: Associated Pipeline Contractors, Inc. constructed 65 miles, and Willbros Construction worked on Spreads A, B, and C – a distance of 179 miles. The contractors used various combinations of the CRC-Evans Internal Welding Machine, the P260 External Welder, and the P600 External Welder for their projects. In Louisiana, CRC-Evans equipment completed a total of 14,784 welds in the 42-inch-diameter pipeline.

The CRC-Evans IWM provides faster, more accurate welds in the field by combining lineup mechanisms and an internal welder that automatically deposits the root bead in 1.25 minutes. The P260 welder provides tip-to-work tracking, 32-pass programmable welding, PDA downloads in the field, and position-based parameter control. The P600 External Welder has single or dual-torch operation, through-the-arc tracking, onboard data collection, and touch screen control.

CRC-Evans Automatic Welding designs and builds the world's most widely used automatic welding system for land or offshore pipeline construction. In addition to renting or selling these systems to contractors on a project basis, the division provides other specialized services such as engineering, on-site technicians, and training. The company is a subsidiary of CRC-Evans Pipeline International, a leading provider

of specialized equipment and services for the construction of pipelines.

CRC-Evans manufactures pipeline construction equipment and automatic welding systems, and provides managed subsea services, field joint coating, weighting, heat treatment, and inspection services. Based in Houston, CRC-Evans maintains offices in North America, Europe, and the Middle East.

CRC-Evans – USA Email: in.snave-crc@wa Website: <u>www.crc-evans.com</u>

Siddhi Engineers receives national award for research and development

AWARDS are always a strong stimulant for any organization. It was in the year 1988 when two young mechanical engineers Mr. Bhagwat Patel and Mr. Prashant Gandhi dreamt to develop an industry, which will be reckoned as an import substitute. SIDDHI ENGINEERS based at Chhatral actively involved in manufacturing of Precision Drawn Aluminium Tubes, Rods & Profiles is marching along to make their dreams come true.

Meticulous planning, Qualitative production, Research & Development and Continual improvement have been the main attributes of the organisation, catering to a high customer segment from automation industry to defense.

Within the tenure, the company has achieved various national level awards at regular interval. The company has recently received two National Awards by the MSME- Ministry of Small and Medium Enterprise, New Delhi, Govt. of India for Entrepreneurship and Research & Development at Vigyan Bhavan, New Delhi from Mr. Dinsha Patel, Minister – MSME. The award ceremony had an august presence of the Hon'ble Prime Minister of India, Dr. Man Mohan Singh, who inaugurated the function.

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SMS Elotherm commissions induction heating system for large pipe bending

SMS Elotherm has commissioned a new system to inductively heat large diameter pipe segments for an Italian pipe bending facility.

The inductively heated pipes are bent by the "Hamburg process". The straight pipe is inductively preheated and then worked over a curved mandrel. A second toroid-shaped induction coil heats the inner pipe region while the pipe is bending on the mandrel. The resulting bent pipe segments have exceptionally high strength, qualifying them for critical applications such as nuclear and combustion power plants, chemical plants, and oil and gas pipelines.

The ability to heat large pipes with diameters up to 1200 mm (48") and wall thicknesses up to 50 mm (2") makes this a remarkable system. A 2400 kW straight inductor coil preheats the pipe to 750 $^{\circ}$ C (1380 $^{\circ}$ F). The 1600 kW curved inductor coil brings the tube up the 850 $^{\circ}$ C (1560 $^{\circ}$ F) on the bending mandrel. The working throughput is up to 11,500 kg (25,000 lbs) per hour.

With this induction heater, the customer reproducibly makes high quality value-added products for safety critical applications, assuring and advancing its worldwide leadership in the bent pipe market.

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最 新行业新闻

2010第七届中国(北京)国际钢管工业展览会

自六年前成立以来,北京国际钢管展览吸引了来自20多个国家和地区的大批有影响力的专家、采购 商、集团决策者,已成为中国最具影响力的展会之一。

为达到国家的可持续发展战略要求,帮助钢管工业发展更快、更好的发展,北京国际管材展览会在 推动石油、石化、造船、施工、汽车、电气、液压和机械业的健康发展中起到了积极的作用。

第七届钢管展将于2010年8月10-12日在北京中国国际展览中心举行。

根据中国钢管工业的实际情况,这次举办将结合国际国内经济发展的新形势,以国家在节能减排、 发展循环经济和资源的合理利用等方面的政策为导向来举办。

为建立合作和寻求互利双赢的结果,相信2010北京展览会将通过大量展示产品和技术成为参与者提 供加强技术创新、生产扩大与国际合作的最高平台。

Beijing Hai Wen Exhibition Co Ltd – 中国 Fax : +86-10-88680811 Email: bjhwexpo@yeah.net

管道词典出版

一套英对俄/乌克兰语的管道生产词典首次出版。这是Centravis Production Ukraine、 JSC、State Enterprise "Ya.Ye. Psada Scientific REseatch Institute"与International Tube Association合作的结果。这本字典是为了满足工作在管材工业或机械制造业的研究人员和工程师的需要。

Nataliya Koryaka – ITA Email: Koryakan@gmail.com

Tenova 交付EFSOP整体优化和增强的熔炉安全模块

TENOVA Goodfellow已成功完成了美国德拉瓦Evraz Claymont Steel的另一个EFSOP®项目,对现 有的160吨电弧炉(EAF)上的EFSOP Holistic Optimization®技术进行了调试。EFSOP技术的应用为 第4孔阻尼器和燃烧喷射器提供了自动化。

项目收尾的最后验收包括了在于2009年应用的新的增强型熔炉模块上签字。这个EFSOP增强型熔炉 模块证明可以检测到异常的水。例子是上料桶和水盘裂缝里的雪。为了提高电弧炉的安全运行,工 厂已对操作员的过程操作水平作了规定并要求执行。

Evraz Claymont Steel是小的碳板钢厂,专门在美国和加拿大制造和销售离散钢板。年生产力超过 500,000吨,Claymont Steel的设施专门配制用来提供小订单尺寸和非标准尺寸的低成本钢板。 Tenova Goodfellow的EFSOP技术是一种用于电弧炉尾气过程控制系统。它对电弧炉炼钢实时闭环 过程控制第四孔进行连续测量和分析电弧炉尾气(CO, CO2, H2, O2) ,从而提高操作,节约能源、 降低加工成本和提高安全投资效益。

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Fine Tubes: 更多的信誉,没有危机

Fine Tubes,一家英国不锈钢、镍、钛无缝焊管生产商,因其最高信誉水平和最小的失败风险而被 授予了邓白氏评级1级。

尽管经济动荡以及常常被提及的"信贷危机",Fine Tubes的1级地位正式使其成为英国15%顶尖公司 的一员。根据邓白氏公司 (D&B)的商业报告,这个分数意味着最高的信誉水平和最低的失败风险。

"D&B评级是国际公认的,"将证书颁发给Fine Tubes的 Dun & Bradstreet的客户体验负责人Nicky Keyworth解释到。"这是动态的得分,会根据最新进行的数据进行评估,Fine Tubes在过去的12个月 多里一直表现出了最高的水平。D&B等级评定根据经济稳定性、公司的付款记录、公共文档、贸易 支付、经营事件和其他因素,对一个存在于世界上任何地方的公司的信誉等级做一个最全面的报告"

Fine Tubes 的财务总监Marshall Davis说道:"一个D&B等级可以帮助或防止一桩生意获得贷款或延 长信用额度。它还能导致投资者消失或恐慌,供应商停止发货或销售商拒绝进货。换句话说,保持 良好的D&B等级对业务的良好运作是至关重要的。最近几年,为在最糟糕的经济时代实现"低风险高 信誉水平"地位是很大的成就。"

Fine Tubes有一个超过215,000ft2的综合设施,用于无缝管、焊管和焊接以及拉制形式的管道制造 和研发。这些管道和线圈的标准和规格是针对最艰难的操作环境下的特定应用的。Fine Tubes产品 服务于很广泛的市场范围,如石油和天然气以及化工、航空航天、医疗及核工业。

Fine Tubes Ltd – 英国 sales@finetubes.co.uk www.finetubes.co.uk

照片:(从左至右) Marshall Davis (Fine Tubes财务总监)、Nicky Keyworth (Dun & Bradstreet顾客体验负责人)和Ronen Day (Fine Tubes总经理)

Tenova Pyromet和GLPS就直流炉达成协议

TENOVA Pyromet 和GLPS Project Management & Engineering Services联手向全世界铁合金和基本金属市场提供直流炉技术。Tenova Pyromet和GLPS为寻求熔炉技术的不同顾客提供一系列的服务、技术和经验以及合并提供独一无二的、全面的服务。Tenova Pyromet和GLPS预见到由直流炉技术为铁合金和基本金属带来的独特好处,将确保对这一技术的需求的增长。

Tenova Pyromet在过去的67年成功开发、设计、供应、安装、调试等电熔炉应用于铁合金和贱金属 的领域,享誉世界。这个深入的认识和了解铁合金、和贱金属冶炼工艺和技术已经带来了一个广泛 的安全记录的项目的成功。全球网络的Tenova小组办事处坐落在五大洲,提供Tenova Pyromet熟悉 当地的商业行为,全球采购网络,在中国世界级制造车间和实时的客户服务。Tenova Pyromet在南非 具有项目管理专家来执行从绿色、棕色一次性交钥匙工程计划,通过供应,监督和调试世界上的任何 一个地方现在和以前的项目,包括在俄罗斯、中国、印度、美国、欧洲、澳洲、非洲等地。

GLPS,创办于1993年,一直广泛参与直流炉技术的开发和执行。这些经验和创新的设计已经引导 GLPS开发和取得其世界领先的直流炉技术专利。该技术已成功应用于能力为10MW到 60MW的熔 炉。GLPS独特之处在于它为铁合金生产提供被证明的直流炉技术经验的能力。此外,GLPS在为冶 炼工业提供专业的项目管理、工程和设计服务方面有着丰富的经验。

Tenova Pyromet首席执行官Paolo Argenta 说"我们很高兴有GLPS作为我们的合作伙伴,因为他们 的直流炉技术是行业公认的,加上他们有着可靠的工作业绩。Tenova Pyromet 和 GLPS的此次合作 协议给我们的顾客提供了从领先的直流炉技术和我们的广泛的工艺、熔炉和项目执行经验的结合中 受益的独特机会。我们有几个潜在的直流炉管线项目,因此我们正直接运行这个令人兴奋的新的冒 险"。

GLPS的首席执行官Freddie Greyling说:"我们相信,这次合作将使两家公司都大大受益,利用每个 利益相关者的力量,为行业要求提供最优的解决方案。业界也承认交流电和直流电炉组合确保工厂 平衡,因为这两种技术是相辅相成的。作为一个团队,我们现在能够为行业提供技术选择的一个客 观评价,确保顾客能得到最优的解决方案。我们为此次机会感到兴奋,通过这一合作已经显现,期 待与Tenova Pyromet一起进行这一新的冒险,因为我们共享同样的激情为行业开发和提供世界领先 的冶炼技术。"

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Tenova将为印度钢铁管理局提供一条新的生产线

TENOVA Strip Processing最近收到一份订单,来自SAIL (Steel Authority of India),为位于印度 恰尔肯德邦的Bokaro钢铁厂提供拉伸矫直和检测线。该项目将按交钥匙工程执行,与孟买的Multiform,现在属于Tenova Group的一部分,以及加尔各答的Sunag Engineering联合负责当地物资供 应和服务。

这条生产线,预计将在24个月内调试,能处理重达30吨、宽度为800-1560 mm和厚度0.25-2.0 mm 的钢卷,加工速度高达500 米/分,产量为550,000吨/年。该条生产线将提高碳钢光整钢卷的物理性 能,并将配备一台拉矫机组和一台切边机,以Tenova的先进技术和一个自动检测系统为基础,生产 出高质量的钢卷,适合在国际市场上销售。

Tenova的合同属于印度钢铁生产商Bokaro的雄伟扩张计划中新冷轧综合厂(120吨/年生产力)计划的 一部分, 用来提高工厂的生产能力和多样化增值产品。

Tenova – 意大利 Fax +39 02 4693026 Email: tenova@tenovagroup.com Website: www.tenovagroup.com

McElroy 大学提供新的生产力课程

MCELROY 大学,McElroy的培训部门,最近宣布了2010年课程计划里将增加一个针对生产率的

课。第一次课将于2010年5月17日开课。课程报名登记现在开始。

30多年来,McElroy一直是唯一的、不断提供先进培训,以提高熔焊技术人员的效率、生产力、正 确使用机器中的安全和标准的管道熔焊机制造商。McElroy University目前在位于奥克拉荷马州塔尔 萨的McElroy技术中心提供23课每年。McElroy University还在世界各地不同地方实地进行培训。

课程内容涵盖从小直径到大直径管道熔焊机的操作、故障诊断和改造。增加了新的熔焊生产率和项目管理课程,McElroy University将提供10个不同的公开课程。整个课程的课通常需要几天完成。

新的熔焊生产力和项目管理课程涵盖熔焊项目规划。主题包括哪些设备在某些情况下将工作得最 好,确定优化生产力的工作现场,和将提高生产力的工具集成到工作现场的计划。McElroy University所有课程里,大多数培训是要亲自动手的,小部分在教室内的进行。

"这个新的生产力课是为了满足那些正在寻求更少投入更多回报的很多终端用户的。" McElroy的培训经理Larry Gordon说,"如果我们能够教更多的熔焊技术,最好确定他们的工作现场的方法以及工作现场的工作效率,这对管道熔焊将会更好。这个过程已经很快,以及凭借我们的技术,承包人肯定可以按期和提前在最后期限完成项目。"

课程与McElroy日益增长的生产力工具系列并行。该系列产品,包括PolyHorse、 PolyPorter、 MegaMc Pipe Stands等等,每年还在继续增长。公司通常按客户需求设计和制造生产力工具。

McElroy – 英国 Email: E-mail: thenning@mcelroy.com Website: www.mcelroy.com

Technip得到两份印度Visakh精炼厂的合同

TECHNIP得到了来自Hindustan Petroleum Corporation Ltd. (HPCL)的两份关于位于印度东海岸 Visakh精炼厂柴油加氢装置项目的合同。

这两份合同,计划于2012年上半年完成,将由Technip位于印度新德里的运营中心执行。

第一份合同,价值约5000万欧元,包括一个36,000吨/年氢生成装置项目的许可证获取以及设计、采购、施工和调试(EPCC)。

第二个合同价值大约6500万欧元,包含220万吨/年柴油加氢装置的EPCC。

Technip – 法国 Email: adanjou@technip.com Website: www.technip.com

Imatek第一次销售到俄罗斯

IMATEK最近在俄罗斯新特罗伊茨克的Ural Steel安装了一个30,000J DWT40-30,落锤撕裂试验 (DWTT)。

该DWT40-30取代了一台老机器,将被用来测试石油和天然气工业大直径管道生产用钢材的断裂性 能。

这对Imatek来说是一次重要的安装,它代表在建立了车里雅宾斯克基地Uralsibpromservice (USPS) 新的分销商后公司第一次销售到俄罗斯。 Ural Steel是Metalloinvest控股公司的子公司,并且是南乌拉尔地区最大的公司,还是俄罗斯八大著 名冶金联合企业之一。

公司成立于1955年。如今,Ural Steel是一家重要的钢铁生产商,在生产出口带材、管坯、桥梁钢、 机械工程钢和钢坯占据市场领先地位。

Ural Steel的产品在俄罗斯和独联体以及国际市场的需求量越来越高。客户包括来自俄罗斯、德国、 英国、意大利、西班牙、比利时、挪威、丹麦、土耳其、伊朗、中国、韩国、越南、中国台湾和泰 国的龙头企业。

在石油、天然气和制造业中对高一级钢材的使用正在为新一代专业冲击试验机创造需求。Imatek提供一系列落锤撕裂试验系统,用于根据API推荐的5L3、EN 10274和ASTM-E 436标准测量钢材试件 的断裂特性。X120钢材和50mm的试件能够适应。

Imatek系列一个主要特点是高质量的仪器及分析软件,可以为试件缺陷提供详细的以图形和表格显示的信息。而在过去,DWTT试验方法不需要仪器,最新的研究表明在试验较难的X-钢材时,这具有明显好处。仪表可能会使将确定的样品产生裂纹,以及大量的裂纹扩展能量,与断裂面的目测评估相比,这被认为是对这些钢种的实际应用性能更好的测量。

Imatek是英国领先的材料试验设备制造商,主要领域是冲击试验。Imatek的产品被全世界广泛使, 用于测试材料、零部件和组件的性能,使用于各种行业,如航空航天、聚合物加工,钢材生产、汽车 和学术研究。

Imatek Ltd – 英国 Fax: +44(0) 1438 829054 Email: Info@imatek.co.uk Web: www.imatek.co.uk

雷达站应急电源升级

PIPE Center为位于苏格兰西海岸的路易斯岛的斯托诺韦雷达站的新应急电源系统提供了专业的燃 油管。

这种Durapipe PLX管正被用作国家空中交通服务公司(NATS) 雷达设施重建项目的一部分,该雷达 设施是用于监控和控制飞机和收集天气资料的。

应急电源系统设计用来在遇到主电源故障时提供备用电源的,以确保国内和国际飞机安全。

The refurbishment is part of a £127m programme to replace and upgrade the entire NATS radar network by 2012.

该重建部分是一亿两千七百万英镑规划项目的一部分,用来到2012年完成整个NATS雷达网的替代 和升级。

安装由Ness Engineering执行,他们承担整个苏格兰高地与岛屿的专业设计和施工项目。

PLX Durapipe管被指定用于储罐到备用应急发电机之间的柴油输送,因为它能满足完整性和可靠性 这一至关重要的要求。它取代现有的、先前已安装的钢管。

可提供32mm和160mm尺寸,Durapipe PLX的二次纳入系统可以超常阻止快速裂纹扩展和长期应力 开裂。PLX具有高成本效益,且比传统金属替代品更容易操作。

Pipe Center还为Ness Engineering提供定制的燃料管道支撑结构栏杆系统。

Pipe Center格拉斯分公司负责处理订单的Lindsay Crockett说:"Ness Engineering将工程轮廓图发 给了我们。我们与Durapipe密切合作评估材料和零部件要求,确保一切都准时交付——包括早上 6.30 坐船去岛上。"

设计选择建立在一个双重密封管道系统之上。这有一个主要的内部燃油管被封装在一个较大的外部 管道里。在可能发生断裂时,流经主要管道的燃料被准确获取并运输到发电机,确保雷达站持续供 电。

设计关键是使用电熔焊接技术,用于管道连接。这种采用电加热感应工艺可以同步完成管道内外的 连接,形成一个完全封闭的故障保险系统。

零部件和连接设备,部分来自意大利,通过早上6.30从陆地到路易斯岛的轮渡准时送到现场,以开 始工作。

来自Ness Engineering 的David Williamson对项目评价到:"这次应急电源的重建是我们今年在斯托 诺韦发展的一个大的部分,我们需要一个确定能在紧急情况下提供质量和可靠性的产品。"

"我们发现Durapipe PLX的品质优良,尤其是我们在项目期间得到的超好的客服给我们留下了深刻 的印象,以及后期服务和沟通。我们期待与Pipe Center 和 Durapipe UK将来能再次合作。"

随着项目的成功,Pipe Center得到了7个相似的应急电源重建项目订单在准备中。

Wolseley 英国

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Lincoln Electric的自动焊接机器人将出演电影续集

一套LINCOLN电气自动焊接机器人装置,配有一个Lincoln Electric Power Wave® i400焊接电源和 一个FANUC® ARC Mate® 100iC机械臂,将联合主演电影续集钢铁侠2。Lincoln Electric的焊接设 备和耗材将被演员Robert Downey Jr扮演的角色使用,设计天才Tony Stark将在电影中制造自己的 超级英雄。

"卷入电影实在是令人难以置信的经历," Lincoln Automation的Automation Application Group机器 人程序员Brian Simons说,"为应对Lincoln迫在眉睫的客户需求,我准备立刻开始工作室的布景。这 对Lincoln一个巨大的展示机会,可以证明其现今的焊接技术水平。"原版的钢铁侠在头两周就创下了 超过一亿一千七百万的票房收入。Lincoln Electric MIG和TIG焊接设备也在这部电影中出演。"

续集预计将会是另一部叫座电影。除了Downey和Gwenyth Paltrow的角色,Pepper Potts,电影明 星Mickey Rourke扮演反派Ivan Vanko,又叫Whiplash,Scarlett Johansson扮演Natasha Romanoff 或Black Widow,以及Samuel L. Jackson扮演Nick Fury。另外,Downey和原版导演,同时也是续 版导演,Jon Favreau,亲笔签下Power Wave® i400和机械臂用于钢铁侠2的电影布景。整个自动 焊接装置目前正在克里夫兰的Lincoln Electric Automation Division大厅里展出。

Lincoln Electric是设计开发和生产电弧焊产品、机器人电弧焊接系统、等离子和氧化燃料切割设备 的领跑者,并在合金钎焊市场占据全球领先地位。

Lincoln Electric – 美国 Website: www.lincolnelectric.com

新的Wilkinson焊接学院提供最新的焊工培训

商务大臣Lord Mandelson为正式开办Wilkinson焊接学院揭幕,一个"一流的"、为专门目的创办 的、动手实践型焊工培训和焊接理论培训中心,将作为基地位于曼彻斯特沃斯利的工艺设备供应商 Wilkinson Star Limited公司的一部分,策划用来进一步为他们的经销商伙伴以及客户当今的工业制 造需要开发焊接技术。

该学院有12个声学焊接室,结合高真空和低真空排烟系统,同时设备将包括最新的以惰性气体保护 焊、氩弧焊和电弧焊产品为基础的Cebora逆变器,包括最新的Thatcham认证的单相Jaguar双脉冲 惰性气体保护焊逆变器以及高清度等离子切割设备和5轴机器人焊接室,来显示在可重复部件焊接上 可以获得过程和速度。所有的设备将会有最先进的电子过程控制。

现可提供大量标准、正规的训练模式包括焊接中的健康和安全、电器和电源供应要求、MIG/MAG焊 接、TIG焊接、MMA焊接、等离子切割、电阻焊加上先进的MIG和TIG焊接过程模块,包括脉冲和双 脉冲MIG焊接、Synergic脉冲焊接和MIG钎焊,尤其是用于汽车和设备制造行业。

焊机逆变器的推出以及新的高科技过程控制增加了对在组件上进行高质量可重复焊接的需求,包括 使用在汽车制造和修理中发现的新的高强度轻质材料。学院的培训将给有经验的和经验不足的焊工 一个学习和使用最新设备和见识真正的用户友好型设备是什么样的,帮助消除一些围绕高科技产品 的假想。

Wilkinson Star Ltd John Wilkinson OBE总裁说:"为满足当今汽车、工业和制造市场需要,为获得 和保持所学技能,我们的新焊接学院定位为英国装备最先进和最好的之一。我们完全有资格的的教 练有很多年的焊接实践经验,这对接受焊接培训的学员来说将是非常有价值的。"

在开幕式上,Lord Mandelson说:"Wilkinson焊接学院在索尔福德、西北部和整个国家里每个人都 应做的典范。"

Wilkinson Welding Academy – 英国 Fax: +44 161 728 7945 Email: info@wilkinson-welding-academy.com

供水专家确保管线在高地运作正常

水质量工程师Panton McLeod在确保一条主要的新管线仍留在高地中起到了关键作用。

Borders-based公司,负责清洗、检查与维修英国饮用水行业的结构,被要求对新的位于高地的山区 管道进行消毒,这将帮助为该地区成千上万的人提供饮用水。

该项目看见Panton McLeod消毒一条29km管段以备服务。该部分是横跨威廉堡山较宽的管网系统的 一部分,该管网将位于格伦尼的新泵房与仍留在高地的现有水管连接起来。

Panton McLeod 的运营总监Paul Henderson说这个项目非常具有挑战,因为天气恶劣和管线海拔 高。

他补充道:"沿最高的管线连到这一区域里有一些非常陡峭的路径,因此我们手里需要拥有我们最好的4x4车辆将队伍运送到位,进行消毒工作。"

"我们也正在和这些因素作斗争,如在这一海拔高度的路面上有大量的冰雪,这使条件很具挑战性。 但是,我们的团队已适应了这种气候,能够表现的很好,甚至是在凶多吉少的情况下。" "我们能够用我们在水领域的多年专业知识来确保整个管段得到彻底消毒,使其可以及时投入服务。 这段新的高地管线将帮助为该区域用户提供饮用水,应付增加的需求,因此这是涉及的一个非常重 要的项目。

"我对工作在该管线上的Panton McLeod的整个团队感到非常自豪,因为他们再次展示出他们能够按 最高标准执行,即使是在最具挑战性的条件下。"

"我们也很高兴能再次为Scottish Water提供服务,帮助确保在苏格兰的用户能继续享受最新鲜的饮 用水。"

这个项目是Panton McLeod为Scottish Water已完成工作中最近备受关注的一个。在过去的15年中, 公司专业清洗和修复整个苏格兰的水结构——包括对已承建的Scottish Water最大水项目的一部分的 贡献,如120000000英镑的Loch Katrine方案。

今年早些时候,该公司与Scottish Water达成一项新的协议——作为正在进行的价格和供应协议的一 部分——将看到清洁和消毒横跨Ness 、Don、Tayside和Ayrshire地区超过400个水库和水箱,有助 于进一步为苏格兰的用户改善水质。

Panton McLeod是水行业最知名的公司之一,与最大的公司一起对供水系统进行检查、清洁和修理 工作。

在过去的十年里,这家公司从它位于Newtown St Boswells的总部发展起来,在诺丁汉和美国增加了 更多的办事处。在美国科罗拉多州丹佛的基地是北美分部Panton McLeod Americas的中心——目前 正彻底改变整个美国饮用水储存方式和处理机构的清洁和消毒。

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TRUMPF宣布扩张Hegman Machine Tool

TRUMPF公司宣布Hegman Machine Tool Inc目前是Trumpf产品在整个美国威斯康星州的独家代理。

公司的Trumpf产品长久以来覆盖了内布拉斯加州、西部爱荷华州、明尼苏达州、北达科塔州、南达 科塔州和西部威斯康星州,目前Trumpf.分销售已加入到了威斯康星州剩下地区和密歇根州上半岛。

Hegman Machine Tool Inc是一家基地位于双子城、负责推销高质量机床以及提供服务和支持结合的私营机床经销商。

"我们在已经营了27年多,很兴奋期待与位于威斯康星州东部和密西根州上半岛的需多著名公司合作,"总裁Ralph H Hegman说到,"我们在过去很多年取得的成就一直是因为我们的客户是如此的成 功使用我们的Trumpf机和自动化系统"

Trumpf Inc – 美国 Fax: 860-255-6424 Email: melanie.mcmillan@us.trumpf.com Website: www.us.trumpf.com

Technip 的董事会成员Germaine Gibara去世

Technip董事会董事长兼首席执行官Thierry Pilenko深感遗憾和悲伤, 4月21日宣布,Technip的董 事会成员、战略委员会总裁以及提名和报酬委员会成员Germaine Gibara逝世。

他们对他们的家人和朋友表达了诚挚的哀悼。"Germaine 2007年加入Technip董事会,给公司带 来了很强的金融专业知识和对战略分析的理解。我们都很想念她的团队精神、友情和多文化体验" Thierry Pilenko补充到。

Technip – 法国 E-mail: kstewart@technip.com Website: www.technip.com

PowerSeries在2010 Wittamann Battenfeld Competence日上展示了一流的性能

来自30多个国家的参观者接受了Wittmann Group的邀请,参加2010年4月28日在(奥地利)科廷布伦 举行的2010感受日。"简约"是箴言,是在Wittmann集团专家们向感兴趣的专业观众呈现最新的创新 和工艺技术之下的箴言。总共1000名游客,其中700名客户,超过了主办方对感受日的期望值。

除了它新开发的E PowerSeries系列以及EcoPower、MacroPower 和 MicroPower系列,Wittmann Battenfeld展示了HM和立式机床系列,同时Wittmann还展示了最新开发的外围设备——机器人、制 粒机、干燥机和温度控制器。自从2008年合并Wittmann和Battenfeld以来,他已能全部执行公司的 理念"全部都来自同一出处"。在感受日,再次展示了来自注塑、自动及外围设备的共70个展出。

几场介绍会向客人展示了注塑的最新发展和工艺技术概况。

介绍系列是由来自Kiska设计机构(奥地利) 的一个嘉宾演讲人开办的,谈论了"塑料和设计"。接下来 关于PowerSeries的演讲向参观者显示了新机器系列的效率。最后,详细讨论了新注塑机的节能潜 力,标题为"能源和成本效益"——从经济和生态角度来说都很感兴趣的话题。

Wittmann Battenfeld也在工艺技术上开辟了新天地。喷水和抛射技术结合为注塑开辟了新的可能。 工艺技术的最新成果是一个叫做BFMOLD™技术的工艺,作为感受日的几个亮点之一,第一次被展 示给公众。

不同热量模具的回火技术已被Kunststoffinstitut Lüdenscheid开发出来,并由WITTMANN集团专门 推向市场。BFMOLD™使部件生产达到高光泽表面,无凹痕、翘曲变形或合模线,即使是在一些情 况下在很短的循环时间内。该过程中温度控制功能由WITTMANN的多电路回火装置TEMPRO加上 一个C VARIO执行,特别是为此目的开发的。

展示系列通过关于WITTMAN机器人最新发展和自动化技术专用设备的演讲结束的。

为每个应用专门定制的整套生产装置的最佳解决方案可以从零部件的一个广泛选择来放在一起。在 接下来的机器展示中,参观者们可以体验到高性能和效率的注塑机以及他们的外围设备——现场体 验。性能展示以展示节目拉开帷幕,过程中,新的MicroPower和MacroPower机模型正式亮相。

MacroPower注塑机,800吨的锁模力,通过制造干燥机中心部件(模具由Coko Kunststofftechnik提 供)证明其高效的生产力。机器理念与用户利益相配合,提供了最小锁定和高压恢复时间以及超快 速模具更换设备。

新开发的MicroPower被证明是参观者特别感兴趣的。该生产装置有5或15吨的锁模力,因此非常适 合生产微型精密部件纳米级部件。在感受日上,展示了生产部件体积不超过0.0035 cm3微型插塞的 过程。在这里,部件质量被一台集成在生产装置内的相机和机器的控制系统检查和监控。模块化设 计便于清洁室模块的集成,也适应医疗用清洁室应用。

伺服电机由几个来自新EcoPower系列的设备展示。在EcoPower 110/350上,展示了LSR O-ring的 生产,在一个由(奥地利) Rico 提供的128腔模具内。凭借来自Schottli(瑞士)的32腔模具,EcoPower SE 110/350展示了一个用于医疗的2 ml注射器筒的生产。来自该系列的另一个例子是,一台Eco-Power 180/750,展示一个PP管件的生产,模具来自IFW(奥地利)。

一台HM 180/1330,配有新的、节能ServoDrive驱动理念,展示生产了一个PA中型管道。此处用到 了喷水和抛射技术的结合,以及一个由IKV Aachen (德国)提供的模具。抛射技术可实现稳定的管 体截面,更光滑的内表面和特殊几何构型的成型。这个项目是与IKV Aachen合作展出的。

作为COMBIMOULD多组件的一个例子,在HM MK 300/2250H/525上展示了,一个Gram技术的两 部件油封在一个由KTW(奥地利)提供的双堆栈模具里完成制造。此处,同样展示了新的ServoDrive 驱动理念。

"全部都来自同一出处"

一台TM Xpress 210/1350注塑机在制造一个750毫升的杯子的展示时给人留下来深刻的印象。此过 程中使用了来自WITTMANN 的IML自动设备以及模具。

WITTMANN外围设备整个系列展示了来自每个产品集团最新的开发。机器人、干燥机、制粒机、测 量仪器、供料器、温度控制器、冷水机组和流量调节器都在展厅里展出。

WITTMANN自动化设备有许多不同的功能。高速部件切除是一个选择,其他的是通过TruePath功能 实现高精度路径规划或几个机器人的同步功能以及传送带。

WITTMANN BATTENFELD 的总经理Mag. Georg Tinschert对在Kottingbrunn举行的感受日取得的 显著成功感到非常满意,他说:"我们是全世界都来自一个出处的整个解决方案的唯一供应商。新产 品得到了积极的回应,我们对未来很乐观。"

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国际管材协会在杜塞尔多夫管材展上招募近100个新成员

因为冰岛火山爆发,2010管材展提早一天结束了,尽管国际管材协会(ITA)前4天非常成功。在展出 上,ITA 签署了95个新成员,为单一展会的创记录数字。

有许多人参加了年会及会员午宴见证了ITA各层的许多变化。Manabu Kiuchi教授因其对协会的优 秀服务而获得John C Hogg终身成就奖。他退休时是ITA的总裁,但得到终身荣誉总裁的头衔。在 AGM举行的选举上,Gunther Voswinckel成为ITA总裁和Tsutomo Nakata 成为新的ITA董事长。退 休的董事长Albert SedImaier被选为副总裁(欧洲)。

在会员午宴上,技术管理委员会主席Stephen Loynes宣布了ITA2010演讲者奖。2010 Professor Hugh Sansome演讲者奖和演讲者的得奖论文分别为:

德国AWS Schaefer的Winfried Heinemann,其在伊斯坦布尔09管材会议上的论文:"新一代的感应 弯曲机" 德国Reika的Hans-Joerg,也是在伊斯坦布尔09管材会议上的论文:"最新一代的管道矫直机——在 管道加工线上的成本和质量改进"

一个很受好评的奖给了伊朗Urmia University 的R Shahandeh,他未能参加午宴,他在伊斯坦布尔 会上的论文:"试验和有限元研究对静水压力下海底管线屈曲行为上加强圈的影响"

来自ITA成员大量的事实证明2010杜塞尔多夫管材展带来很多不错的积极询问,清楚的显示全球市 场正在从2008/2009的经济衰退中复苏,杜塞尔多夫展应受到表扬,因为他在吸引高水平决策者参 观展会上做出了努力。

International Tube Association – 英国 Fax: +44 1926 314755 Email: info@itatube.org Website: www.itatube.org

OMS任命Richard Brown为产品工程经理

英国专家级测量技术公司Optical Metrology Services (OMS) Ltd很荣幸地宣布任命Richard Brown为 公司产品工程经理。

基地在Bishop's Stortford OMS英国办公室,Richard将领导公司的工具部门,负责维护OMS不断增 长的用于在英国和海外的检查合同的服务工具。Tools Division还制造定制检查工具和软件用于特殊 检查项目。

Richard从新西兰返回英国,,在新西兰,他在Steelbro (NZ) Ltd公司担任了八年产品开发工程师, 该公司是自动装载拖车、汽车吊和侧置提升机制造商。

Richard给OMS带来了嵌入式控制系统开发、合规性和软件体系结构等方面的丰富经验。2006 年,Richard获得了电气系统IPENZ优秀工程奖,因其发明了SMARTlift,一个侧置提升机微控控制 系统,包含一种非常安全的工作室控制法则。

2002年到新西兰之前,Richard在Optical Metrology Centr作为一名顾问工程师工作了一年,处理来 自City University London的一个持久的业务,为使用摄影测量技术的3D测量和使用专业轮廓分析工 具的管道测量提供产品和咨询服务。

Richard Brown说:"在过去的几年中,OMS看到了一些非常显著的业务增长,尤其是来自海外市场 的销售收入。我想帮助建立在这个优良的工作之上。"

"八年前,我帮助设计一些OMS的原创管道轮廓分析工具,这已经成为管道测量的金标准。曾经错 失了,现在有机会回到OMS,我感到太好了,我对未来和对公司即将到来的新的可能性以及在管道 检查工具上不断增加的范围让我感到兴奋。"

OMS是专业的测量技术公司,对石油和天然气工业提供测试服务和精密测量系统。公司关注的焦点 是石油和天然气管道或其他相似结构的尺寸测量,如航空发动机、工艺工业管道或制造的 圆柱形物体,等尺寸显得至关重要的领域。

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ITP Group系统增加PFW Aerospace的管道检查能力

纽尼顿的PFW Aerospace安装了四个ITP Group 管道检查系统,来应对罗尔斯罗伊斯航空发动机的 严格检验要求。

在PFW最新的合同里,Rolls Royce仅需要提供管道组装的3D CAD模型——不需要装置或图 纸。PFW使用ITP Group管道软件从CAD模型里提取管子和管件数据,并将这些数据导出到弯管机 和CMM,不需要键盘输入数据。

ITP Group系统是用于初步管道检查、管件方位和最终完成的检查。

Rolls Royce 称赞了PFW Aerospace的成就,称其完整的生产系统建立在围绕TP Group机上是具有 开创性的,而且他们从未在其他任何公司看到这种水平的生产力。这种能力上的增长已经看到

PPFW生产工程师Adam Treadwell说:"如果没有ITP Group系统,我们可能永远也完成不了Rolls Royce的合同。他们正在超越集团内所有其他管道检测系统。"

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Quaker Chemical在中国管道市场的"前端到后端的"产品系列获利

在中国的管道生产力在过去十年增加了5倍,中国生产了世界上近一半的管材。这一步部分是Quaker关键的战略增长部分。"我们从世界各地吸收我们的工艺技术、成熟的解决方案和技术,来作为润 滑剂、制冷剂和清洁剂(用于前端过程),以及在后端的一套防锈和最终涂层组合的"前端到后端 的"供应商," Quaker的全球战略总监Karl Kunke说。

目前,Quaker在整个中国支持许多管道客户。在北方,Quaker提供了大量焊接管道成型流体、螺纹 流体和液压试验流体,以及抗紫外线涂料。在南方,Quaker提供水溶式防锈剂,以及螺纹流体和液 压试验流体。Quaker期望扩展到中国无缝管轧机以及QUINTOLUBRIC®防火液压流体和定制的热轧 润滑剂。

"在中国我们已树立了我们是一个值得信赖和重承诺的合作伙伴这一形象。" Quaker亚太地区业务总 监Albert Ma说,"我们正在努力的目标是其他ERW成型线以及抗紫外线防腐剂的增长。尤其是,UV 机会很适合Quaker,因为他们给我们与客户在增值项目上密切合作的能力——呈现出真正的共赢"。

Quaker在全球工艺化学品市场取得了巨大的成功,这多亏他们将来自任何地方的最好的东西交付 到各处的任务。目前,Quaker China有10个卫星办公室和200多雇员。Quaker的亚太区总部位于上 海,包括制造、试验室设施(由Quaker 全球研发组支持的30名化学家),和办公人员。整个2010 年,Quaker期待在中国的持续增长和扩展,在内部及在它的客户基地。

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CRC-Ecans焊接设备被美国的midcontinent express pipeline选用

CRC-EVANS自动焊接设备被选用在Midcontinent Express Pipeline的路易斯安那州部分。目前已完成,507英里的Midcontinent Express Pipeline是一家由Kinder Morgan Energy Partners 和 Energy

Transfer Partners合资的公司,将天然气从俄克拉何马州,通过东北部德克萨斯州、中部密西西比 州输送到阿拉巴马州。

有两个承包商工作在MEP的路易斯安那州部分:Associated Pipeline Contractors, Inc.施工65英 里,Willbros Constructio施工Spreads A、B和C——179英里的距离。承包商使用CRC-Evans内部 焊机、P260外焊机和P600外焊机的各种组合来完成项目。在路易斯安那州,CRC-Evans设备完成 了42英寸直径管道14,784道焊缝。

CRC-Evans IWM提供更快、更准确的现场焊接,通过组对机制和内部焊机,可以在1.25分钟内自 动处理根部焊道。P260焊机提供tip-to-work跟踪,32道次可编程焊接,现场PDA下载和定位参数控 制。P600外焊机有单或双焊炬操作,整个焊弧跟踪、机载数据收集和触摸屏控制。

CRC-Evans自动焊设计和建造世界上最广泛使用的陆上和海上施工用自动焊接系统。除了通过向项目上的承包商出租或售出这些系统,该分部还提供其他专业的服务,如设计、现场技术员和培训。该公司是,CRC-Evans Pipeline International,一家领先的管线施工专业设备和服务供应商,的一个子公司。

CRC-Evans制造管道施工设备和自动焊接系统,提供管理水下服务、现场焊缝刷漆、称重、热处理 和检查服务。基地在休斯敦的CRC-Evans在北美、欧洲、中东等国家都有办公室。

CRC-Evans – 美国 Email: in.snave-crc@wa Website: www.crc-evans.com

Siddhi Engineers获得国家研发奖

奖励对任何组织来说都是很令人兴奋的。那是在1988年,当两个年轻的机械工程师Bhagwat Patel和Prashant Gandhi先生梦想开发一个行业,将会看作是一个进口替代品。基地在Chhatral的SID-DHI ENGINEERS积极投入到制造精密拉制铝管材、棒材和型材的生产中,沿着目标向前,使们的梦想成真。

精心的计划、有质量的生产、研发及持续改善,已成为公司的主要贡献,以迎合来自自动化行业到 国防工业的高级客户领域。

任期内,公司定期取得了各种国家级奖。该公司最近收到两个由印度新德里政府MSME——中小企 业部——颁发的国家奖,即企业家精神将和研发奖,该奖在新德里Vigyan Bhavan由MSME 的部长 Dinsha Patel颁发。印度Hon'ble Prime Minister的 Man Mohan Singh先生将大驾光临颁奖仪式,是 他开启的这一盛会。

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SMS Elotherm为大型管道弯曲调试感应加热系统

SMS Elotherm为意大利管道弯曲设施调试了新的大直径管段感应加热系统。

被感应加热的管道通过"汉堡过程"完成弯制。直管被感应预热,然后在一个弯曲的芯棒上加工。第 二个环形感应线圈加热内管部位,同时管道在芯棒上完成弯制。产生的弯管段有超高的强度,使他 们可以用于要求严格的应用中,如核电厂和燃烧电厂、化工厂、以及石油和天然气管道。

能加热直径达1200毫米(48")和壁厚达50毫米(2")的大型管道使这一系统成为卓越的系统。2400 kW 直电感线圈将管道预热到750 °C (1380 °F)。1600 kW的弯曲感应线圈将弯制芯棒上的管道加热到 850 °C (1560 °F)。工作吞吐量达到11500公斤(25,000磅)每小时。

凭着这套感应加热,顾客可以为安全要求高的应用提供高质量的增值产品,确保和推进其在弯管市 场的世界领先地位。

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