

The international magazine for the tube

and pipe industries

TUBE & PIPE TECHNOLOGY



July 2008 | Vol 21 No 4 | US\$33

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(+/- .0004002 in.)

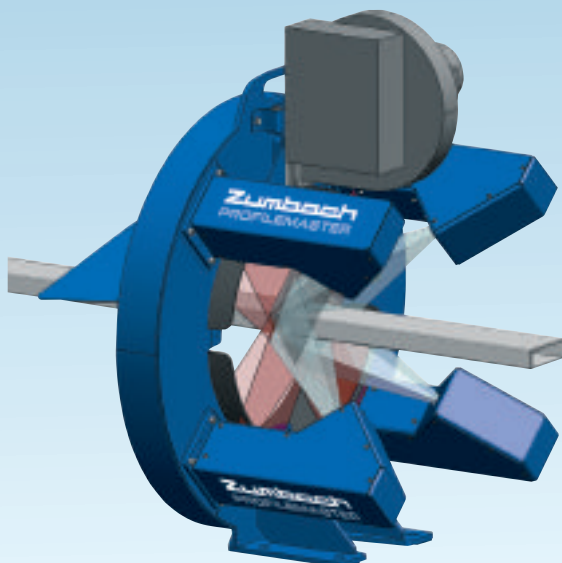
*Largest product depending on centering

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Contents

The calm after the storm

Tube and pipe professionals could be forgiven over the last five years or so for not keeping up-to-date with the show calendar. As has previously been mentioned in this column, the exhibition calendar has been rather breathless of late, with a growing number of events in increasingly diverse locations.

A history lesson tells us that in 2002 there were only three tube and pipe exhibitions of note: Fabtech, Tube Düsseldorf and Tube Singapore (now defunct). Since then, clearly reflecting globalization and a more dynamic market, exhibitions dedicated to tube have been established in Brazil (Tubotech), China (Tube China), Iran (Iran Tube & Profile Exhibition), Kazakhstan (Tube & Pipe Central Asia), Russia (Tube Russia and Metal Expo), Thailand (Tube Southeast Asia), Turkey (Boru), Ukraine (Tubes & Fittings Ukraine), and United Arab Emirates (Tube Arabia). This is without considering the raft of other general metals and manufacturing exhibitions that feature tube and pipe as an exhibit area.

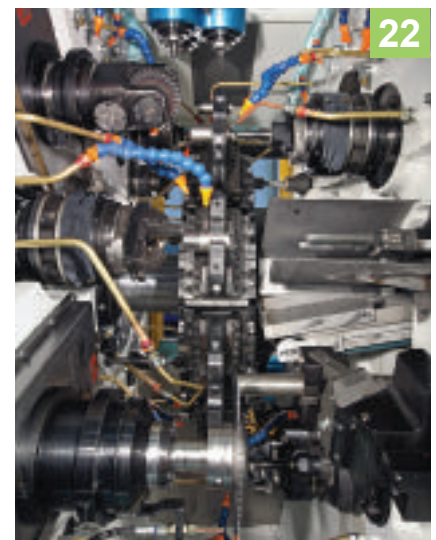
However, it thankfully now appears that the calendar of events has settled down and taken on a more regular and predictable shape. The tube and pipe professional can now relax in the comfort of a relatively unsurprising travel itinerary. Which is a relief as for a while it had looked like an exhibition would spring up in every country, perhaps with Tube North Pole a distinct possibility! With the cost of aviation fuel rising, and airline companies charging more per flight, a degree of rhythm and consistency in the exhibition calendar is more than welcome.

While on the subject of shows, as *Tube & Pipe Technology* was going to press it was announced that Tube Arabia 2009 has been preponed by one day, with the new dates being 10-13 January 2009.



Rich Sears
Editor • Email: richard@intras.co.uk

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TECHNOLOGY

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When you have finished with this magazine please recycle it



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46 Tube China 2008: Shanghai, China

Tube China 2008 will take place for the third time from 23-26 September at the Shanghai New International Exhibition Centre in Shanghai, China. Already a complete sell-out, the exhibition is now one of the most popular on the show calendar. In this feature we offer a window onto the Chinese market, with a preview of selected companies who will display products and technology at the buzzing event.



74

74 Heat & Surface Treatments

As in the natural world, protection for manufactured products is of great importance if corrosive attacks are to be repelled and wear and tear prevented. Sometimes defence is the best form of offence – crushing resistance with state-of-the-art protection; tube and pipe is subjected to a rigorous process in order to withstand a lifetime of hardship. This arsenal of technology includes continuous induction annealing, acid pickling, intensive heat treatment, and UV-curable coatings.



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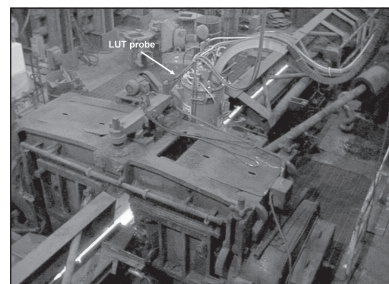
98 Focus on Tube & Pipe Mills and Rollforming Lines

With versatile productivity at their heart, tube mills and rollforming lines are the lifeblood of the tube and pipe industry. Based on the skilful orchestration of rolls that form strip into high quality products, it is increasingly essential for the tube mill operator to focus on mill alignment and roll tooling setup. With fast changeover and dual capability now even higher on the agenda, mills and rollforming lines are also finding greater occupation in the duties of continuous operation – cut-to-length, punching and notching.

Technical Article

116 New strategies for wall thickness measurement in the hot seamless tube production plant

Holger Gurski-Schramm, Ingenieurbüro Gurski-Schramm & Partner, Germany, and Dr Marc Choquet, Tecnar Automation Ltee, Canada





Sikora opens a second office in China

Sikora Asia has established a second Chinese office in Suzhou, situated in a heavily industrialised area close to Shanghai. This office further strengthens the company's presence on the Chinese market. The office consists of two bureaus providing enlarged space for the employees to meet all customer demands in their sales area.

Located in the centre of all commercial activities, the Suzhou office will contribute to the advancement of existing customer relations and provide the company with more opportunities to network and establish new sales leads. The decisive reason for the opening of the office was to increase product support onsite.

Mr Wanbin Chen, head of Sikora Asia, feels very confident about the business expansion. He says, "Our customers can expect a more convenient service which includes lower service costs due to shorter traveling methods. As we also engaged new employees we can more profoundly react to individual customer needs and most of all we can improve the information flow with them."

Sikora Asia was founded in 1991 and is a subsidiary company of the German

Mr Wanbin Chen – head of Sikora Asia – celebrates the opening of the new office in Suzhou

based Sikora AG. The company is known internationally for its highly qualitative measuring and control equipment for the wire, cable and hose sector. The headquarters of Sikora Asia is situated in Fuzhou, in the southeast of China.

The new Chinese location is part of the Sikora strategy of worldwide representation and service. The economic upswing of the Chinese market has motivated many customers to make investments in the field of measuring devices for the cable and plastics branch. This trend follows firm intentions of large companies, especially machine manufacturers to invest in completely new production lines.

The country's development potential positioned China as 3rd among the top 20 exporting nations worldwide in 2007. Over the coming years China will further play a major role in the cable and tube sector.

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SMS Group achieves record business for 2007

The SMS Group, Germany, achieved record success in 2007 with an increased order intake of around 60 per cent. The company – a specialist in metallurgical plant and rolling mill technology and tube, long-product and forging technology – expects the boom to continue with even better development expected this year.

In 2007, the company's order intake was €5,142 million (2006: €3,235 million), while sales reached around €2,937 million (2006: EUR 2,826 million). At €176 million, the group's pre-tax result was double the previous year's figure (2006: €85 million).

In 2007, the Group employed a worldwide total of 7,613 employees, a drop of over 1,000 staff compared to 2006. The reduction in staff was mainly due to the sale of the plastics machinery construction business, an area the SMS group has pulled out of completely.

Explaining the reasons for the pullout from plastics machine construction, Dr Weiss comments, "Because the SMS group was nowhere near as successful in plastics machine construction as we were in metallurgical machine and plant construction, we decided some time ago to completely pull out of plastics technology. With our sale in this area in 2007, we successfully completed the pullout."

The company is now entirely focused on its core business of metallurgical plant construction. In 2007, another 520 employees were hired in this area. The group plans to create an extra 700 jobs in 2008 – mainly for qualified engineers.

"It is already clear that the exceptional boom in metallurgical plant construction will continue into its fourth year in 2008. Global steel production is expected to increase to 1.4 billion t over the year. We are pleased to see that this growth not only comes from the threshold countries alone – in other words China, India, Brazil and Russia – but also from our customers in other regions of the world that are increasingly placing orders with us," said Dr Heinrich Weiss, chairman of the SMS group.

The current boom has broken through the normal peak-and-trough pattern in the steel industry. According to the SMS Group, this is because the threshold countries require large quantities of steel to build up their





» **The reduction in staff was due to the sale of the plastics machinery construction business, an area the SMS group has pulled out of completely**



Dr Heinrich Weiss, chairman of the SMS group

economic infrastructure. This trend has been a major factor for years.

An increasing number of these emerging economies are equipped with state-of-the-art production plants. To stay internationally competitive, North American, Japanese and European steel producers must catch up. Therefore, the SMS Group expects increased demand for revamps and expansions in these regions.

The company's products and services are divided between the business areas of SMS Demag and SMS Meer. In 2007, SMS Demag increased order intake by some 90 per cent to €3,725 million (2006: €1,972 million), making it the leader in flat products.

SMS Meer was able to raise its order intake by around 60 per cent to €1,353 million (2006: €857 million). SMS Meer is the leading supplier of tube rolling mills, long-product rolling mills, extrusion and forging presses as well as heating equipment for the steel and nonferrous metal industry.

SMS GmbH – Germany
Fax: +49 211 881 774 127
Website: www.sms-group.com

DIARY OF TUBE EVENTS

2008

SEPTEMBER

23-26 **Tube China**
Shanghai, China
 Exhibition → Email: tube@mdc.com.cn
 Website: www.mdc.com.cn

OCTOBER

06-08 **Fabtech/AWS Welding Show**
Las Vegas, USA
 Exhibition → Email: information@fmafabtech.com
 Website: www.fmafabtech.com

21-25 **Euroblech**
Hanover, Germany
 Exhibition → Email: info@euroblech.com
 Website: www.euroblech.de

NOVEMBER

11-14 **Metal Expo 2008**
Moscow, Russia
 Exhibition → Email: info@metal-expo.ru
 Website: www.metal-expo.ru

13-16 **Tube + Pipe Expo 2008**
New Delhi, India
 Exhibition → Fax: +44 20 8387 3201
 Website: www.tubeandpipe-expo.com

18-21 **Tube & Pipe Central Asia**
Almaty, Kazakhstan
 Exhibition → Email: info@expocentralasia.com
 Website: www.expocentralasia.com

2009

JANUARY

10-13 **Tekno/Tube Arabia**
Dubai, United Arab Emirates
 Exhibition → Email: alfajer@emirates.net.ae
 Website: www.tekno7.info

MARCH

05-08 **BORU 2009**
Istanbul, Turkey
 Exhibition → Email: info@ihlasfuar.com
 Website: www.ihlasfuar.com

10-13 **BLECH Russia**
St Petersburg, Russia
 Exhibition → Email: info@blechrussia.com
 Website: www.blechrussia.com

10-13 **TECMA**
Mexico City, Mexico
 Exhibition → Email: info@tecma.org.mx
 Website: www.tecma.org.mx

MAY

12-15 **Tube/wire Russia 2009**
Moscow, Russia
 Exhibition → Email: wolfgramc@messe-duesseldorf.de
 Website: www.metallurgy-tube-russia.com

OCTOBER

06-08 **Tubotech/Metaltech 2009**
São Paulo, Brazil
 Exhibition → Email: cipa@cipanel.com.br
 Website: www.cipanel.com.br

13-15 **Tube/wire Southeast Asia**
Bangkok, Thailand
 Exhibition → Email: tube@mda.org
 Website: www.tube-southeastasia.com

NOVEMBER

02-03 **Pipe & Tube Istanbul 09**
Istanbul, Turkey
 ITA conference → Email: info@itatube.org
 Website: www.itatube.org



Tube & Pipe Central Asia returns in November

An upcoming event for the CIS region, Tube & Pipe Central Asia 2008 will take place from 18-21 November at the Atakent exhibition centre in Almaty, Kazakhstan. The organiser, Central Asia International Exhibitions, has been busy promoting the new show at recent events Tube 2008 and Boru 2008.

The 9th largest country, Kazakhstan is regarded as a strategic point to enter the central Asian market, with Almaty at the gateway to the silk trade route. A business centre for the region, Kazakhstan is also a member of the five-country Eurasia Economic Community along with Belarus, Russia, Kyrgyzstan and Tajikistan.

The region has attracted substantial investment in its comprehensive oil and gas supply network. Kazakhstan's oil, gas and mineral projects have received over US\$20 billion of foreign direct investment (FDI) since 1993. Kazakhstan's exports

are currently valued at around US\$10.3bn, while the country's GDP growth is an average of 8 per cent a year.

The exhibition is expected to attract around 225 companies from over 24 countries such as Austria, Canada, China, Germany, India, Italy, Kazakhstan, Korea, Kyrgyzstan, Poland, Russia, Spain, Turkey, UK, USA, Uzbekistan and Ukraine. In addition to the international attendance, the event is also expected to draw a large number of visitors from Kazakhstan, Uzbekistan, Kyrgyzstan, Turkmenistan, Tajikistan, and the Siberian region of Russia.

Tube & Pipe Central Asia will feature a range of products including ferrous and non-ferrous tube and pipe, plastic/composite tube and pipe, fittings, and raw materials. Technology will be focused on tube manufacturing machinery, processing and finishing plants and machinery, dies and tools, and measuring and control technology.



Central Asia International Exhibitions – Kazakhstan

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Website: www.expocentralasia.com

☞ Kazakhstan lies at the heart of the central Asia region, and holds a key position in the CIS

☝ Almaty is the dramatic backdrop for the 2nd Tube & Pipe Central Asia (photo courtesy of almaty.kz and Yuri Bekker and Anatoliy Ustinenko)



India's Allied Consulting Engineers join Seco/Warwick Group

Allied Consulting Engineers Pvt Ltd, India, has joined the Seco/Warwick Group of companies and will assume the name Seco/Warwick Allied Pvt Ltd. Founded in 1971, Allied Consulting Engineers has over 180 employees and is a highly accomplished producer of industrial furnaces and incineration systems.

Seco/Warwick SA president, Mr Jeffrey Boswell, comments, "We are pleased to have finalized this strategic agreement in order to provide both global engineering and local manufacturing to our customers in India. Seco/Warwick Allied brings a host of technologies into the group including hydrogen bell annealing, continuous steel strip annealing, steel reheating and galvanizing furnace systems."

Mr Vishnu Nasta, president of Seco/Warwick Allied, stated, "We are moving forward with our strategic plan to expand our manufacturing capabilities and bring high quality products, manufactured in India, to the world market."

Allied Consulting Engineers specialize in hydrogen bell annealing, roller hearth, galvanizing, continuous hardening and tempering, reheating, bright annealing, bogie hearth, pit pot, rotary and special application furnace systems.

As an integral member of the Seco/Warwick Group, Seco/Warwick Allied will share engineering expertise and provide local manufacturing services in India. The company manufactures industrial heat processing equipment including heat treat furnaces, vacuum furnace technology, and atmosphere generators.

A specialist in heat-treating equipment and services worldwide, the Seco/Warwick organisation includes Seco/Warwick Corp (USA), Retech Systems LLC (USA), Seco/Warwick SA (Poland), Elterma SA (Poland), Seco/Warwick Allied Pvt Ltd (India) and Seco/Warwick Industrial Furnace Co Ltd (China).

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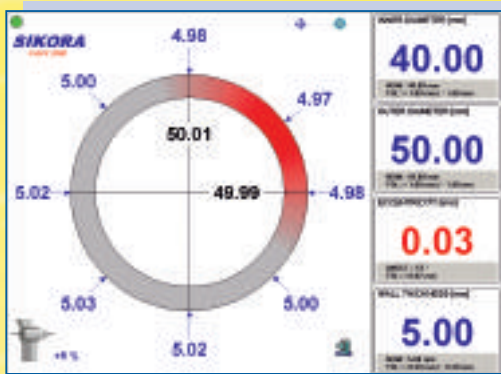
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Email: allied@alliedfurnaces.com

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X-RAY 2000 monitor image



X-RAY 2000

The advantages:

- fast centering of the crosshead directly after starting of the extrusion process
- continuous measurement and control of the extrusion line under consideration of the minimum values
- permanent quality control

Quality control and process optimization:

at the extrusion of single and multi layer plastic tubes and pipes

X-RAY 2000 is an attractive on-line measuring and control system for plastic tubes and hoses.

State of the art X-ray technology provides continuous measurement on the wall thickness, eccentricity, diameter and ovality. With the X-RAY 2000 SIKORA presents an exciting measuring system, which is focused on process optimization by providing:

- quality control and improvement
- reduction of start-up scrap
- reduction of material over-consumption
- increased productivity
- approach as simple as a diameter gauge

The technique of transilluminating the tube or hose with X-Rays in two planes of view provides wall thickness measurements without calibration requirements. Reliable measurements are available for multi-layer products with and without fabric reinforcement layers. This unique technique makes wall thickness measurements an operation as simple as a diameter gauge!

With a relatively low investment a return of investment drastically below 12 month can be achieved.

LASER 2000

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The advantages:

- XY and triple axis diameter and ovality measurement with optimum precision
- MTBF (meantime between failure) > 15 years
- no calibration required

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 30th Sept – 2nd Oct 2008
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Boru 2009 set to build on Turkey's industrial bedrock

Boru 2008 – Turkey's 4th international tube, pipe, fittings and machinery fair – achieved considerable success at the end of March with 178 exhibitors from 23 countries in a space of 11,300m². A high number of foreign exhibitors were present at Boru 2008, with 46 companies from 23 countries.

Held at the Istanbul Expo Centre (IDTM), the four-day event welcomed 21,198 visitors from 31 countries – a big increase compared

⏴ (Below) the ribbon is cut to open Boru 2008, which welcomed 178 exhibitors; and (bottom) Istanbul, the host city of Boru



with the inaugural show in 2005. This year's event, again organised by Ihlas Fuar, was the first to receive official support from the International Tube Association (ITA).

The success of Boru is indicative of the economic and market growth in Turkey, which has become an important part of the global tube and pipe industry. The event is targeted at a broad market including the Balkans, eastern Europe, North Africa, Middle East, Russia, Ukraine, and the Turkic Republics.

Turkey has a huge domestic market of 71 million and an increasing consumer spending power, and holds a unique strategic position between Asia and Europe. In particular, the Turkish market is very important to the Middle East, Gulf states and CIS markets, and caters to both well-established and growing companies.

➤ **This year's event was the first to receive official support from the International Tube Association** ⏴

In recent years, Turkey's home market has displayed an impressive GDP (gross domestic product) growth rate with an estimated 5.1 per cent in 2007, and an annual average of 5 per cent since 2005. Recent data from industry research specialists indicates that Turkey's tube and pipe imports/exports increased significantly in 2007, particularly in the energy sector.

The Turkish government has already announced the construction of a new nuclear power plant, due for completion in 2013, which will be the third biggest in the world with this capacity. Foreign direct investment in Turkey is currently in the region of US\$80 billion.

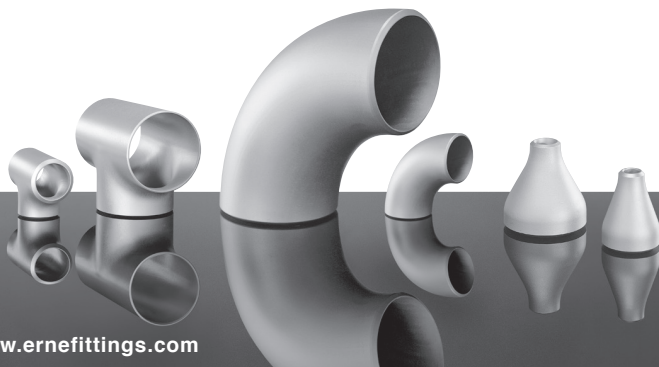
Boru features the latest in ferrous and non-ferrous tube and pipe products and suppliers, plastic and composite tube and pipe, product and component suppliers, production and manufacturing equipment, processing and finishing machinery, lubricants and coatings, and plants, dies, tools and accessories.

With success set to continue, the dates for the next Boru have already been confirmed as 5-8 March 2009.

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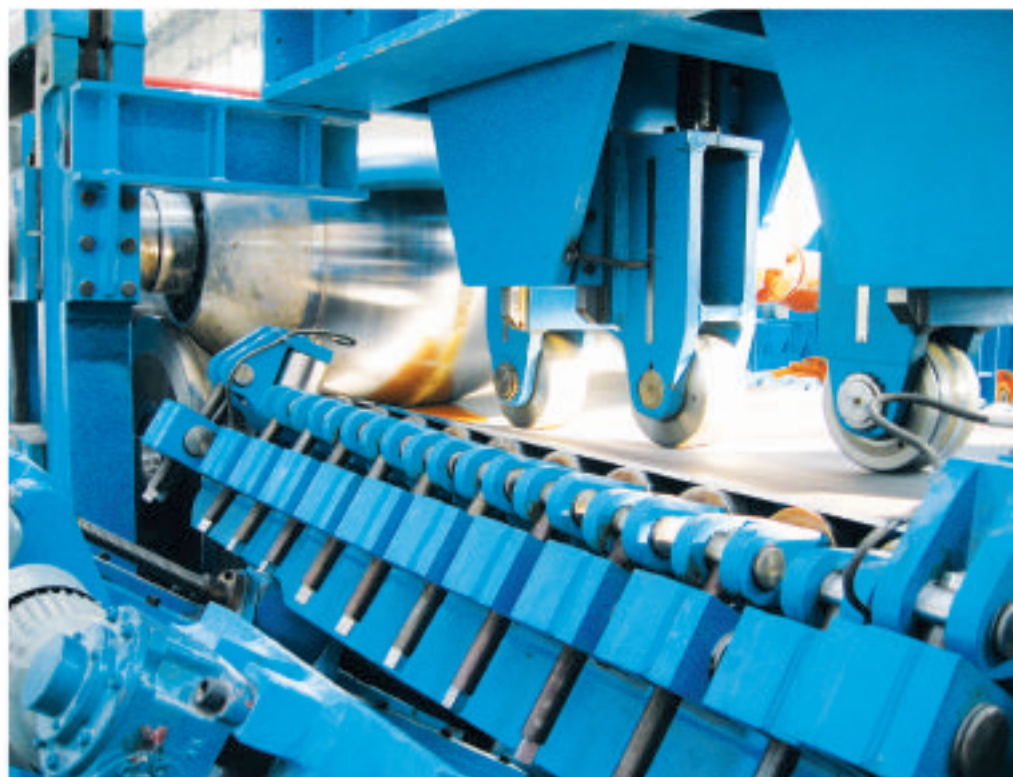
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A decade of Combilift forklifts

Combilift, the Irish manufacturer of the Combilift range of 4-way forklifts, is celebrating its 10th anniversary this year. The company will be marking this milestone with a number of events throughout 2008.

"Ten years may not seem a very long time," says Combilift's managing director Mr Martin McVicar, *"but the growth we have achieved since we launched the product in 1998 has been exceptional."*


Combilift developed the world's first engine powered multi-directional forklift, designed to fill a gap in the materials handling market that had been identified by the two company pioneers Mr Robert Moffett and Mr Martin McVicar.

Until the Combilift was launched, the company claim there was no one single forklift capable of providing the safe and space saving handling and storage of long loads in confined spaces.

The concept was such an immediate success that within just four years, Combilift was exporting to over 40 countries and soon outgrew its original premises in Clontibret. A move to a newly acquired site and purpose built manufacturing facility in nearby Monaghan was finalised in 2006.

There are now over 8,000 Combilifts in operation around the world. The company continues to develop its product range, which now incorporates trucks with capacities from 2.5 to 14 tonnes, enabling



 The Combilift 4-way forklift has now been transporting awkward loads for 10 years

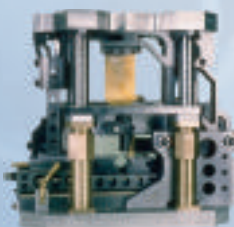
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Kocks establish representative office in Beijing

Due to a growing order book in China, German company Friedrich Kocks GmbH & Co KG has strengthened its presence in China with a local representative. The company's Beijing representative office was established in March, and is based in the Huateng Tower, Chaoyang district of Beijing.

With a selected team of highly qualified employees, the representative office will fulfill all the tasks of Kocks in China. The establishment of the Beijing office follows on from a long period of sustained Chinese success for Kocks, whose headquarters are in Hilden, Germany.

Leading Chinese steel companies are among the company's customers, with demand now booming for Kocks products. Due to this success, Kocks realised that it needed to serve its customers on a more local level with closer proximity and shorter reaction times.

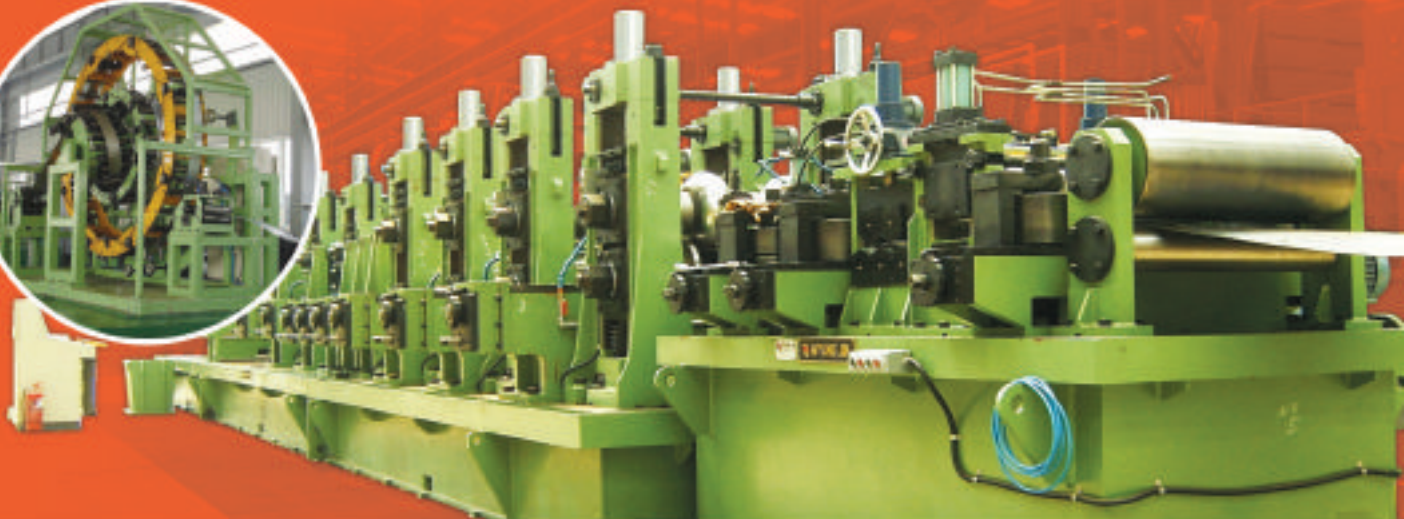
Native Chinese speakers will act as personal contacts to improve the communication between partners, strengthen confidence, facilitate proceedings and allow a stronger presence on the market. These are all essential to further growth on the continuously strong Chinese market.

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First production facility for Trumpf in Japan

Trumpf Group, Germany, one of Europe's largest machine tool manufacturers, has launched its first Japanese production facility, which is based in Fukushima. At 100m long and 42m wide, the new production hall of Trumpf Manufacturing Japan will be used to design and produce automation and warehousing concepts.

⬇ The new Trumpf facilities are located 250 kilometres north of Tokyo, Japan



Around 180 employees work for Trumpf in Japan including those at the new production site in Fukushima. With the new facility, Trumpf claims to be the first German machine tool manufacturer to produce on Japanese soil.

The company regards Japan as among the top five markets worldwide, and has a long tradition of involvement in the 'land of the rising sun'. Dr Mathias Kammüller, Trumpf's executive vice president, explains, "The country represents a vital building block in



⬆ The Trumpf management planted a typical German fir tree at the opening ceremony of the new Japanese facility

our growth strategy for Asia. Localizing production is another well thought-out step within this long-term expansion strategy."

In 1977, Trumpf began with sales and services of machine tools for the local Japanese market. Today, the company offers its complete range of products and reached sales of €100mn (1.55 billion Yen) in the fiscal year 2006/07.

In the 2006/2007 fiscal year, the Trumpf Group had a sales totaling €1.94 billion, spread across three business divisions – Machine Tools/Power Tools, Laser

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Technology/Electronics and Medical Technology. The company's core business is machine tools for flexible sheet metal processing, punching and forming, laser processing and bending.

In the field of industrial lasers and laser systems, the company is a technological leader on the world market. With about 50 subsidiaries and branch offices, the Group is represented in almost every European country, in North and South America as well as in Asia.

With more than 7,800 employees, production locations can be found in Germany, France, Austria, Switzerland, Czech Republic, Poland, China, Taiwan, Mexico and the USA.

Trumpf Group – Germany
Fax: +49 7156 303 6115
Email: harald.dickertmann@jp.trumpf.com
Website: www.trumpf.com

Cleaning – the underrated factor in production

An exhibition to examine the crucial area of parts cleaning during production will take place from 28-30 October 2008 at the Stuttgart Exhibition Centre, Germany.

Parts2clean will enable visitors and exhibitors to address the considerable quality and cost optimisation potential that can be gained from the parts cleaning process. This is often an underrated area of the production process.

On average, 27.5 per cent of the production time required for manufacturing a cylinder head for a 4-cylinder diesel engine goes to cleaning, and manufacturing costs amount to 6.6 per cent. Thus the cleanliness of components is not only a quality feature, it also plays an essential role as a factor in the value added chain.

The proportion of production time and costs for cleaning is considerable for many components. Cleaning time comes in at roughly 10 per cent for an auto body frame component made of steel, and the expenditures amount to about 5 per cent of total manufacturing costs. This figure can be as high as 25 per cent for ball bearings (statistics supplied by the Market and Trend Analysis division of the Fraunhofer Alliance for Cleaning Technology).

Production cleaning issues affect a vast range of industries – especially the automotive

industry. Parts2clean will promote systems and equipment for individual parts cleaning and functional surface cleaning, as well as for batch processes, even in the cleanroom. The criteria for selecting the ideal cleaning process include the spectrum of parts, contamination, the material or combination of materials, part geometry and cleanliness requirements.

The most suitable processes are wet-chemical cleaning, blasting, plasma or laser cleaning and shock-wave cleaning. The use of modern automation and handling systems such as robots allows for quick adjustment to varying

components and changing requirements within the cleaning process.

The inspection of component surfaces for cleanliness is also a significant factor for quality-oriented manufacturing. Quality assurance and analysis systems for inspecting surface cleanliness will also be topics addressed by the exhibition.

fairXperts GmbH – Germany
Fax: +49 7025 8434 20
Email: info@fairxperts.de
Website: www.parts2clean.de



A New Delhi show for minerals, metals, metallurgy and materials

MMMM 2008, the 7th international exhibition for minerals, metals, metallurgy and materials, will take place from 13-16 November 2008 at the India Expo Centre in New Delhi, India.

The show is India's premier trade exhibition for the metallurgy industry. This year's show will centre on the theme of 'Global and

domestic opportunities and challenges in minerals and metals industries'.

Now in its 14th year, MMMM 2008 will also run alongside the India Institute of Metal's (IIM) 2008 international metallurgical conference, together with the 46th National Metallurgist Day and 62nd annual technical meeting with national awards. The Tube

and Pipe Expo (ITPE) will also be held concurrently with MMMM 2008, a new addition to an already successful show.

MMMM 2008 is the largest industry trade show with exclusive attendance including the metallurgy key players and buyers based in India. Due to a growing economy, these industry specialists now have the purchasing power to buy more expensive overseas technology, equipment and services.

India's steel and metals production is expected to grow from the current level of 38 million tonnes to 50 million tonnes by 2012 and 100 million tonnes by 2020. The huge capacity addition in the steel sector will require an estimated investment of US\$16.5bn in the next 7-8 years.

Event director, Mr Oleg Netchaev, comments, "India has one of the fastest growing metals, metallurgy and minerals sectors in the world."

The event has increased at least twice in size since the inaugural event, with the 2008 show set to include an expanded range of sectors. The last exhibition in 2006 attracted over 15,000 professional visitors.

The technology on offer at MMMM 2008 will include tube and pipe, wire and cable, casting machinery, foundry machinery, and furnaces/heat treatment. Visitors will include senior executives from integrated steel works, cold rolling mills, tube mills, and wire/cable manufacturing.

Expomedia Group Plc – UK
Fax: +44 20 8387 3201
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Ⓣ MMMM 2008 will be held in New Delhi, home to the Red Fort (below), a Unesco world heritage site



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Guild International reaches 50th anniversary

Guild International, USA, is celebrating its 50th anniversary in 2008, drawing from a history of success in the tube industry. In 1958, Mr Donald Wheeler, father of the current president, Mr Michael Wheeler, began what was then known as Guild Metal Equipment Company, a manufacturer of shear welders for the tube industry.

At the time, Mr Donald Wheeler, a salesman for a welding equipment manufacturer, had noticed an increasing demand for better quality welding equipment. Mr Wheeler began his fledgling company dedicated to producing high-quality and reliable equipment.

⬇ One of a long-lasting range: the Guild QM resistance welder



In 1964, Guild Metal Equipment Company was one of the first USA-based welding equipment manufacturers to begin shipping its products overseas. As it continued to increase its worldwide activity, the company eventually changed its name to Guild International in the mid 1970's.

Over the years, Guild International has registered over 25 patents, attesting to the company's highly developed engineering and manufacturing capabilities. During the 1980's the company launched several resistance welding machines, which are now a large part of the company's revenues.

In 1983, Mr Michael Wheeler took over the reins of the company as president, allowing his father to eventually retire. Today, Guild International is a world supplier of coil end joining equipment for the steel processing, tube producing and stamping industries serving countries throughout the world.

Guild International – USA
Fax: +1 440 232 5878
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Website: www.guildint.com

Dates announced for next PaintExpo coating exhibition

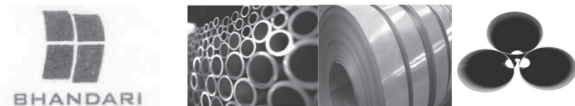
PaintExpo, a trade fair for suppliers and users of industrial coating technology, will next take place from 13-16 April 2010 in Karlsruhe, Germany.

The last event earlier this year attracted 285 exhibitors from the field of industrial coating technology, a figure that the organisers expect to exceed at the next event.

Over 5,900 visitors from 43 countries attended the last exhibition, which was an increase of 20 per cent. The organisers report that more than 50 per cent of the exhibitors from 2008 have already confirmed their participation at PaintExpo 2010.

The event covers leading technology from pre-treatment to final inspection for industrial coating. Industrial coating technology is the strongest sector in the overall field of surface finishing with a market share of 40 to 45 per cent.

Mr Frank Wolf, senior vice president for marketing & business development industrial solutions at J Wagner GmbH, says, "For



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us, PaintExpo is the number one trade fair in Europe, and it's the ideal framework for presenting our top quality products and technologies to a broad ranging audience."

Due to its clear-cut focus, the event makes it possible for suppliers to present their products and services efficiently in a targeted fashion, and users are able to quickly gather comprehensive information.

"By further expansion in the areas of pre-treatment, automation and paints, we'll be able to match up offerings presented at PaintExpo 2010 to current market issues to an even greater extent, and thus improve event quality for the visitors once again," reports Mr Jürgen Haußmann, managing director of organizers FairFair GmbH.

FairFair GmbH – Germany
Fax: +49 7022 60255 77
Email: info@paintexpo.de
Website: www.paintexpo.de

Jackson Safety acquires Chinese welding safety products manufacturer

Jackson Products Inc, USA, a global manufacturer and distributor of industrial safety products, has acquired a 70 per cent stake in Changzhou Shine Science & Technology Co Ltd (Shine), a Chinese welding safety products manufacturer.

Mr Tom Burns, president and chief executive officer (CEO) of Jackson Products, says: "This acquisition supports our global strategy of being the preferred supplier of safety products. Shine's innovative products broaden our range of welding products and strengthen our position as the world's leading manufacturer of auto-darkening filters (ADF) for welding."

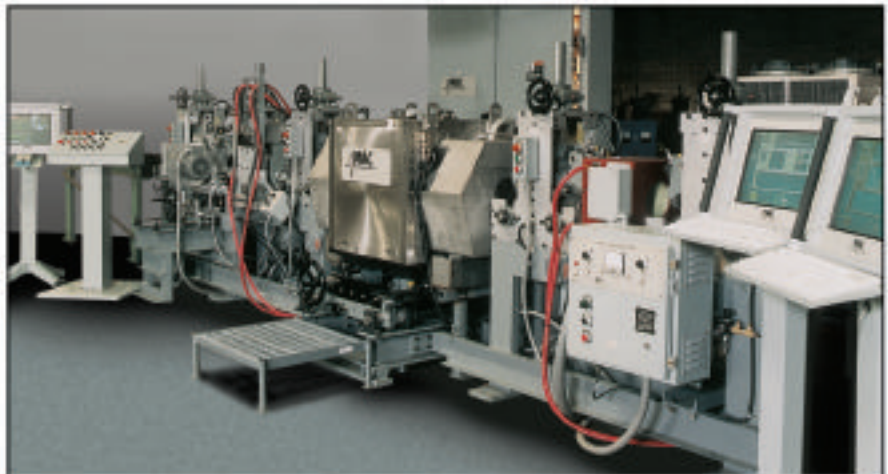
"This acquisition will also provide us with a manufacturing base in Asia and Shine's excellent engineering talent will add to and

complement our own expertise in auto-darkening filter technology."

Mr Phil Chew, managing director EMEA (Europe, Middle East and Asia), Jackson Products Limited continues: "Following on from Jackson Products European and US based acquisitions over the last 12 months, this latest acquisition fits excellently into our strategy of developing and expanding our welding safety product lines and our continued penetration of the international market."

Jackson Safety is a global manufacturer and distributor of safety products, including welding, PPE (personal protective equipment) and traffic control products. Jackson markets its products worldwide with emphasis on North America, Canada and Europe under the brand names Jackson, Smith & Wesson, Huntsman and Silencio.

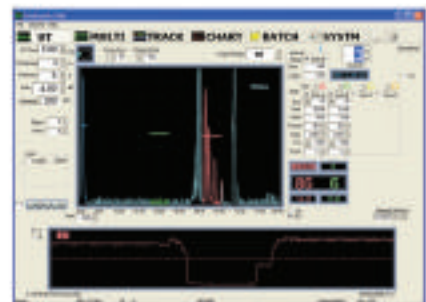
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Events News in Brief... events news in brief...

 **BLM Group UK Ltd** (www.blmgroupltd.com), UK, recently staged a successful 5-day in-house event. InTube drew visitors from across the UK, who were able to view a number of machines including several models of all-electric bending and forming machines (eg E-Turn and E-Bend). A similar event for BLM's cutting and profiling technology is being planned for next year.


 The **5th China International Steel Congress** (www.steelcongress.com) took place from 2-4 June 2008 in Shanghai, China. Co-organised by the China Iron and Steel Association (CISA) and the Metallurgical Council of CCPIT (MC-CCPIT), the event took place alongside the Metal+Metallurgy China 2008 Expo and China International Steel Mill Rolls Conference (CISMRC 2008).

 **Roll-Kraft Ltd** (www.roll-kraft.com), USA, has recently hosted several training seminars in Canada, detailing the best techniques for producing roll formed products and tube and pipe. Attendees were also invited to visit the Roll-Kraft Ltd facility in Woodbridge, Ontario. Information on future seminars, including onsite seminars, is available on the company's website.

 The **12th Medtec** (www.cancom.com), the world's largest show for medical technology and products, took place in Stuttgart from 11-13 March 2008. The event welcomed 635 exhibitors from 24 countries, which is a year-on-year increase of 14 per cent, while over 9,100 visitors were in attendance. The event, organised by Canon Communications, was accompanied by a three-day conference. The next Medtec will take place from 3-5 March in 2009.

 The **China Steel Trade Expo 2008** (www.metal1986.com) will take place in Shanghai from 21-23 August, 2008. The event will play host to 1,100 exhibition stands and around 30,000 visitors. Exhibit areas will include construction, oil and shipping. For the first time, the show will feature sheet, tube, profiles, wire and bar products.

 The **4th Shanghai international casting, forging, heating & furnace expo** (www.cftp.com.cn) will be staged from 21-23 August 2008. The last event in 2007 received 200 casting companies from 20 countries. Exhibits will include foundry machinery, furnaces, surface treatment, quality castings, and heat treatment.

 **Surfex 2008** (www.surfex2008.net) – the largest and most comprehensive UK exhibition for surface coatings, printing inks, adhesives, corrosion and construction chemicals – welcomed 180 exhibitors from 3-4 June 2008. The event is organised by Surfex Ltd and sponsored by Oil and Colour Chemists' Association. 



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Representatives welcome

Business News in Brief... business news in brief...



Outokumpu Copper BCZ SA, Belgium, and **Outokumpu Copper SA**, Spain, have been acquired (100 per cent) by Alfonso Ortega and a management team, with assistance from Lead Business Holdings SL. The joint turnover of the two companies, active in European sanitary and industrial copper tube markets, exceeded €300 million in 2007. The new company includes the production units at Bilbao and Liege, and an extensive network across Europe.



Interpipe (www.interpipe.biz), Ukraine, aims to increase tube production at its Niko Tube mill with investment of US\$6.3mn. The new project will increase production by 30,000t/annum for API 5CT and GOST 633-80 tubing with upset ends (Ø 60.3 to 89mm). The new equipment includes a Bronx/Taylor-Wilson 5-roll straightening press (6CR11), intended for straightening pipes from Ø 60-139mm with wall thickness from 2-15mm.



The Korean distributor of **Huntingdon Fusion Techniques** (www.huntingdonfusion.com), UK, has secured significant orders for specialist ancillary products to facilitate fabrication of LNG terminal pipework and vessels in the area. This follows on from UK success with supply to the massive Milford Haven gas pipeline project and several other LNG installations.



Wolf Maschinenbau AG (www.wolf-maschinenbau.de) has moved to new facilities at Wilhelm Maybach Straße 2 in Brackenheim (D-74336), Germany. The new 1,500m² building offers more space to accommodate the company's growth and further expansion. Since 1991, the company has been producing rotary table transfer and linear type machines (RTM and LTM) for tube production, together with indexing table transfer machines (TSM 280).



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Profile welding system with fully integrated sensor technology

The Macro Group of Rofin, Germany, has launched a new Profile Welding System designed and configured to weld tubes and profiles using fully integrated sensor technology. This technology is designed to detect the weld gap and enable seam tracking.

The laser welding process for joining tube and profiles enables narrow seams with fine grain structure to be produced together with a minimum of heat affected zone. The controlled and predictable nature of the laser welding process also means that in the majority of cases, no further heat treatment or processing is required

on the welded component. In contrast to conventional TIG welding, non-contact laser welding achieves higher process speeds, and the weld seams generated are capable of withstanding high stress levels without tearing.

The Profile Welding System consists of a beam guidance and sensor system together with PC-controlled linear axes. All laser system functions, such as control of process gases, monitoring of the optical safety circuit and overall monitoring of the laser system and its associated cooling system, are handled by the integrated PLC control system.



 Rofin's Profile Welding System

The sensors used for weld seam position recognition and seam tracking can detect the slightest discrepancies in the seam position. This adaptive system ensures that the laser beam always follows the seam, providing high process reliability and consistency. The high-speed precision linear drives used by the Profile Welding System provide positional accuracies of 20µm at production speeds of up to 60m/min.

A field proven beam delivery system on the Profile Welding System provides safe operation under tough industrial conditions. The system is not sensitive to oil, dirt, dust or damp and is also virtually maintenance free, providing high uptimes and reliability. A display unit mounted on a moveable support arm provides ease of use for operators. This allows centralised monitoring and optimisation of the laser parameters and functions together with seam tracking on the workpiece.

Designed with modular construction in mind, the system can be easily configured to suit specific requirements. For example, the beam guidance system can be supplied with either a beam switch unit or a beam splitter unit, the latter enabling simultaneous operation on several systems or alternatively at multiple welding points.


A number of options are also available for the Profile Welding System that can be used to further customise its configuration for a specific application. These include process gas jet geometries configured for the application; a 30° rotating weld head, enabling 'drag welding' for higher welding speeds; and process data monitoring and storage for quality purposes.

The Profile Welding System is based upon the successful range of Rofin CO₂ slab lasers. With up to 8kW of output power available and excellent beam quality

Multi-station production of complex parts

Trans-Bar machines from Buffoli Transfer SpA, Italy, are multi-spindle CNC transfer machines fed with non-rotating bars or tubes of any profile and material.



 Buffoli machines can be used to machine turned parts without costly secondary operations

A bundle type tube feeder, integrated with the machine, automatically loads tubes up to 6m in length, and up to 75mm in diameter. In the first station, the tube is cut-off and the consequent slug/blank is then indexed from station to station in order to machine the entire external and internal diameter, and also any radial operations, allowing the production of complex parts.

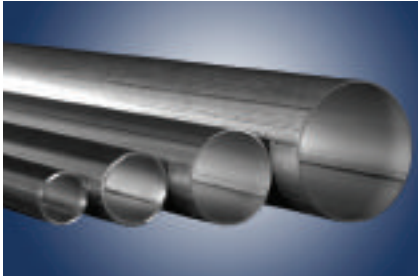
During machining the parts may be clamped with jaws, collets or high precision self-centring chucks that are positioned on the perimeter of an indexing turret of between 4 and 20 stations. The part is completely machined internally and externally with numerous tools working simultaneously from more than one direction (opposing, transversal and inclined). At any station the semi-machined parts can be rotated, allowing machining of high precision parts as well as very long parts.

The machines are suitable for the complete machining of turned parts without costly secondary operations. While the machines are quickly re-tooled, like a two-spindle CNC lathe, they offer higher productivity than a multi-spindle screw machine. They also allow the complete processing of parts that cannot be completely machined on lathes.

Average setup times range from 30 to 90 minutes, and a wide range of quick-change accessories are available, allowing production batches of a few thousand parts. Machines with tube sizes up to 45mm are also produced in double production versions, and can reach four times the productivity of a multi-spindle lathe (up to 12,000 parts/hr).

Buffoli Transfer SpA – Italy

Fax: +39 030 201556 • **Email:** info@buffoli.it • **Website:** www.buffoli.it



↑ Tubes laser welded by Rofin's PWS

($K \geq 0.9$), the range of lasers enables the Profile Welding System to be used in a wide range of applications. Rofin CO₂ slab lasers operate with only a few extremely durable components, and do not require conventional gas recirculation, thus further reducing maintenance and service requirements.

Rofin offers a complete range of lasers, including CO₂, vanadate and fibre lasers. The company also provides solutions for laser marking and cutting applications.

The new system was launched at the Tube 2008 exhibition in Düsseldorf, Germany.

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Turkish specialist in steel pipe and fittings

Borsen Boru, Turkey, is a distributor of steel pipes, valves and fittings, and a manufacturer of TIG welded stainless steel pipes. The company is the Turkish representative and single distributor of Ham-Let for valves and fittings, as well as of Alfa-Laval for sanitary flow equipment.

↓ Borsen Boru manufactures TIG welded stainless steel pipes



Special robot loading device for punching lines

Apollo, Italy, has introduced a robotic loading device that works in unison with the company's Twin punching lines. The robot device can load and unload workpieces from dedicated containers to the machine and back again. This robot considerably lowers working times and labour.



↑ The new robot transfers workpieces to Apollo's Twin punching lines

The robot can simultaneously load two punching lines or take the cut material from a sawing machine coupled with an Apollo punching machine. The time for loading and unloading is approximately 6 seconds.

The punching line features remain the same, as the coupling with the robot does not involve any technical change. Apollo can provide customized solutions in order to transform all of its punching lines into fully automatic machines. Alternatively, the company can provide the robot coupled with the new punching machines.

Apollo may also be able to supply overhauled robots of the KUKA and ABB brands.

Apollo – Italy
Fax: +39 0536 851273 • **Email:** info@apollosrl.com • **Website:** www.apollosrl.com

Since January 2006, the company has manufactured TIG welded stainless steel pipes at its own facilities. The company uses processes such as tricathode TIG welding, outside and inside bead removal, in-line bright annealing, straightening, surface finishing and end deburring.



↑ Borsen is also a distributor of steel pipes, valves and fittings

Borsen Boru's test laboratory is an important part of its quality assurance process. The company's production line uses two eddy current systems. The first test system is used to detect defects of incomplete welding; the second is used to test whole pipe sections after the annealing process.

The company is focused on continuous quality control and improvement. Some of the standard tests in its new non-destructive and destructive quality control test laboratory include chemical analysis by spectrometer, surface roughness test, hardness test, tensile test, shear strength test, flattening test, flaring

test, reverse bending test and hydrostatic test.

Stainless steel tubes produced by Borsen have a producer test and analysis report according to EN 10204/3.1. Steel grades used include 304, 304L, 316L and SAF2205 (1.4462).

The outside diameter range for pipes is 19-76.1mm, with wall thickness from 0.5 to 4mm, tolerance of D4/T4, and length tolerance of 3-12m.

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Non-contact length gauge for tube applications

The Laserspeed LS9000, developed by Beta LaserMike, is a non-contact length gauge specifically designed to measure zero speed, automatically determine the direction of travel, and measure very low speed and high speed.

Due to its ability to measure very low speed, the system is suitable for measurements in tube and pipe production, and for measurements in continuous slab, billet and bloom caster applications. It can be mounted underneath the roller conveyor, or can measure from the side and above.

The LS9000 series gauge is an industrial smart sensor that can be connected directly to a PLC or control computer. Its stainless steel protective housing includes water cooling and an air purge. Speed, length, quality factor and gauge status information can be obtained via quadrature pulses, analogue signals, serial communication, profibus and ethernet.

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Complete range of lubricants for tube applications

Condat, France, specialises in the development of chemical products, including industrial lubricants such as the Vicafil range for the tube, wire and bar drawing markets. The company's products cover the applications of hot and cold forming for tube and bar in the rolled, drawn, formed or extruded processes.

The extensive product range is designed for all metals, carbon and stainless steel, aluminium, copper and alloys. The company's portfolio includes graphite coatings, non-reactive pre-coatings, soap reactive coatings, dry soap powders, soluble lubricants, neat oils, greases and pastes, surface protection products and degreasing products.



Condat produces lubricants for the wire, bar and tube drawing markets

Condat was among the first companies to develop non-reactive coatings and to offer an environmentally friendly alternative to conversion coatings (zinc phosphate, oxalate) for carbon and stainless steels.

For tube drawing of stainless and carbon steel, the company offers Supralub 35. This coating is directly applied onto the bare metal surface, without any previous surface preparation such

as zinc phosphate. The eco-friendly product is soap based, does not contain any solvents or heavy metals, and does not produce any waste (such as zinc phosphate sludge).

The company has also developed a specific lubricant for carbon welded tube. Vicafil TF 498 A is a soluble lubricant. It offers very low dilution ratio, high filtering ability, good stability, improved protection against corrosion, reduction of gummy deposits, clean working environment and strong detergent properties.

In order to replace mineral base technology for aluminium tube drawing, Condat has developed a fully synthetic lubricant, Vicafil TFH 1644. The first goal of such a product is to enable degreasing during heat treatment, reducing the cost of the process. Its low viscosity avoids excessive drag out of the lubricant and so reduces consumption. It also eliminates the need to use trichloroethylene or other degreasing chemicals, completely removing the degreasing stage. Residue left on the tube after heat treatment is close to zero, and no stains remain on external or internal surfaces.

For aeronautic grades, TFH 1644 provides temporary protection. The formulation of the product has been engineered to be chemically stable, user friendly, and to avoid irritation risks.

Condat – France
Fax: +33 478 073 800 • **Email:** info@condat.fr • **Website:** www.condat.fr

Pipehead cuts material costs for foamcore pipe production

KraussMaffei is a supplier of technologies for the plastics and rubber compounding and processing industries, including solutions for injection and reaction moulding, and extrusion systems.

Raw material costs account for up to 80 per cent of the total manufacturing cost for plastic pipe. With rising material prices, this share is inevitably set to increase.

This situation was a strong motivation for KraussMaffei Berstorff to develop machines and systems for pipe extrusion that counteract the trend by minimising material consumption. The most recent example is the new, large KM 3 LRK 43 multilayer pipehead, which is used to produce PVC foamcore pipe in the diameter range of 200mm and 500mm with wall thicknesses between 3.9mm and 14.6mm.

Foaming reduces the density of the pipe core layer to as low as 0.6g/cm³. Compared with comparable compact PVC pipe, the density of the whole composite pipe can be reduced by as much as 30 per cent. It is also possible to produce three-layer pipe, with a foam core and compact inner and outer layers, with a total density of less than 1g/cm³.

One of the new large pipeheads was recently supplied to a customer in Russia, together with two KraussMaffei Berstorff KMD 90-36/R extruders. One of the two extruders produce the compact inner and outer layers, while the other produces the foamed core layer. The pipehead can also be operated with three extruders. In this configuration, the inner and outer layers can be made of different materials or colours.

The new pipehead for large pipe diameters completes KraussMaffei Berstorff's range of PVC multilayer pipeheads at the upper end of the diameter range. Together, the three KraussMaffei Berstorff pipeheads – the KM 3 LRK 41, KM 3 LRK 42 and the new KM 3 LRK 43 – cover the diameter range from 32mm to 500mm. Since this multilayer pipehead range was launched, over 50 have been shipped.

KraussMaffei Berstorff foamcore pipeheads are engineered for very tight layer thickness distribution and very low densities, which maximises their potential for cutting material costs. Once the three layers have joined up in the pipehead, there are no crosspieces to break the



 The KM 3 LRK 43 three-layer foamcore pipehead from KraussMaffei Berstorf

flow of the melt. The pressure-optimised design of the flow paths makes it possible to process cost-competitive formulations without problems.

The pipehead is easy to operate during production start-up and stoppage. The die-set can be changed without tilting the pipehead in the mounting carriage. The pipehead can be tilted 90° in the carriage to simplify disassembly or to clean individual components.

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 Website: www.kraussmaffei.com

Alternative to jacketing, copper and stainless tubing

To obtain long-term corrosion protection in tubing applications, OEMs may focus on using copper, stainless or jacketed tubing. However, with the increasing cost of these types of tubing, reliable alternatives are worth investigating.

Markin Tubing, USA, offers Markin Galfan® with topcoat, a cost-effective alternative to jacketing such as PVF and nylon, as well as copper and stainless tubing. Using a proprietary process, Markin Galfan and an aluminium-rich epoxy paint topcoat are applied inline to the outside surface of the company's 1006/1008 or 1010 steel tubing, to create a coating that provides over 3,000 hours of salt spray protection.

The company produces Galfan in a range of true metric sizes, with outside diameters from 3.96mm to 38mm and wall thickness from 0.71mm to 2.43mm. A grey or black epoxy topcoat option is also available. Markin Galfan is available coiled or cut to length, and offers the benefit of jacketed tubing without the high cost or extra processing sometimes necessary.

Markin Tubing operates eight steel tube mills in its 180,000ft² production facility, and a tube fabrication plant dedicated to complementing customer's value-added processes.

Markin Tubing – USA
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 Email: solutions@markin.com • Website: www.markin.com

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Hydrostatic pipe lining and calibration press

AWS Schäfer Technologie, Germany, manufactures equipment for pipe forming and plate forming from complete solutions to single machines. The company's hydrostatic pipe lining and calibration press, branded HFC 380, is equipped to handle a pipe length of 12.2m.

In order to calibrate the inner stainless steel pipe into the outer carbon steel shell, the inner pipe is initially subject to a high internal water pressure over its full length. When contact has been made between the inner lining and the outer shell pipe, the

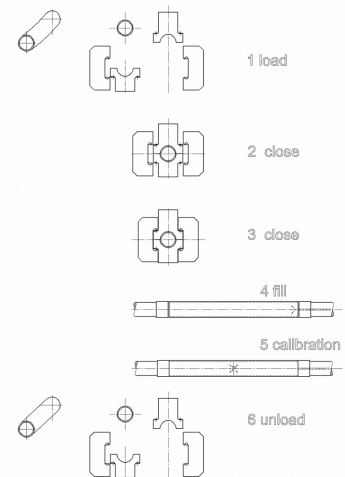
 The AWS Schäfer hydrostatic pipe lining and calibration press



water pressure is further increased, until the inner pipe is forced against the outer shell in a plastic state. The outer shell is also subject to an elastic deformation under such high pressure.

The pipe to be calibrated is placed into a two piece tool by an overhead crane. During loading, the bottom tool half travels, by means of a sliding table, into the loading position. Once the pipe is loaded, the table travels back into calibration position. The upper tool half is lowered by means of hydraulic cylinders onto the bottom tool half, so that the pipe is fully enclosed by the two tool halves. The force to hold both tool halves closed must be sufficient to press the longitudinally banana-shaped, oval pipe, into the die.

Two axial cylinders equipped with extension rods and sealing heads close the pipe ends hermetically, the two tool halves are mechanically interlocked to counteract the forces created during the calibration operation. The pipe is filled and flushed



 Function events of the machine

with an emulsion, from a tank reservoir, until there is no air left in the pipe. The force transmitted on both ends of the pipe by the axial cylinders is increased automatically by the machines control program, in direct relation to the build up of the internal pressure within the pipe, ensuring a positive end seal during the process.

As internal pressure increases, the pipe's outer surface gradually makes contact with the internal contours of the tool. As soon as full contact is achieved, the internal pressure is raised to the calculated calibration pressure. On completion of calibration the internal pressure is relieved and the axial cylinders are retracted. At the same time, the pipe is almost completely emptied of fluid.

The forming liquid is then filtered and recycled back to the reservoir tank. The tool locking system is opened, the upper tool half moves up and the sliding table with the bottom tool half, together with the calibrated pipe, travels to the loading/unloading position. The calibrated pipe is then ready to be unloaded by an overhead crane.

To cope with different pipe diameters, the axial cylinder, sealing heads and tools have to be changed accordingly. The internal contours of the tooling have to be changed out to match the required outside diameter of the pipe. The company recommends the use of one basic tool for the proposed pipe diameter range. Dimensions for the basic machine range are between 101.6 Ø x 8.65mm and 610.0 Ø x 25.4mm.

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High definition measurement of small tubes

Tube and wire shorter than 500mm are concealed in many common objects, such as precise dental drills made from bent wires, and fuel injector rails in automotive engineering. The quality control of these parts concerns industrial sectors including automotive, electronic, household appliance, construction, furniture, and medical engineering.

The inspection of the geometries of these very small, thin tubes and wires is not an easy task. Typically applied metrology is unable to acquire the elements of each individual small part, and even a common gauge check often proves to be unfeasible.

Aicon 3D Systems GmbH, Germany, has developed Tubelnspect HD as a solution to this problem. The system is based on the technology used in the company's Tubelnspect and Tubelnspect S optical 3D tube measuring systems. While these systems are designed to measure tubes of any length, the new Tubelnspect HD three-dimensionally inspects short, thin tube and wire with diameters from 1mm to 10mm.

The system checks geometric features including bends, length of part, and end-to-end distance, and the measuring field comprises a volume of 450mm x 400mm x 200mm. Accuracy is provided by eight digital cameras positioned close to the workpiece, each having a resolution of 2 megapixels, and the system uses a glass reference that is stable both with respect to shape and temperature.

For the determination of the sheath tolerance, the measuring accuracy accounts for +0.025mm. Measuring results, displayed on the provided notebook computer, are available within seconds and are presented in a colour-coded method following a gauge check, enabling the operator to quickly make a decision about the quality of the parts.

The dimensions of Tubelnspect HD are 700mm x 700mm x 900mm, making it suitable for table-top use, for easy integration into existing production environments.

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Latest flying cut-off machine with cold saw

Sabila Srl, Italy, has developed a new and high productivity flying cut-off machine equipped with cold saw, operated by a hydraulic motor. The machine is designed to improve the technical performances of the production of welded tube mills.

The flying cut-off machine operates with a flying carriage, which moves on linear guides via a rack and pinion driven by a gearbox and low inertia ac motor. The maximum speed of the line for welded pipes (42mm x 2mm) is 120m/1'. The production line can also be equipped with quick-change platforms to drastically reduce the time for changing of the roll-sets.



 Sabila's new flying cut-off machine with cold saw

All Sabila equipment is manufactured in Italy and the electrical and hydraulic components are from renowned and high quality companies.

Sabila Srl – Italy
 Fax: +39 085 4462270 • Email: info@sabila.it • Website: www.sabila.it

Extensive range of stainless steel/nickel pipe and fittings

Regent Steel & Engg Co, India, is a leading exporter of a range of industrial ferrous and non-ferrous materials. Established 20 years ago, the company supplies materials for industries including defence, fertilizer, chemical, power, petroleum and thermal power.

The company's product range includes stainless steel plates and rounds in a variety of grades (ASTM/AISI), alloy steel plates, pipes and bars (SA/EN), and carbon steel pipes and plates (ASTM). Regent also manufactures a variety of forgings, alloys and magnetic sheets.

Regent undertakes other services including forging of stainless steel/nickel alloys and flat bars, and can carry out profile cutting of plates. The company provides third party inspection facilities at its warehouse.

Regent Steel & Engg Co – India
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 Email: info@regentsteel.com
 Website: www.regentsteel.com

Yuanan
 www.yuan-an.com

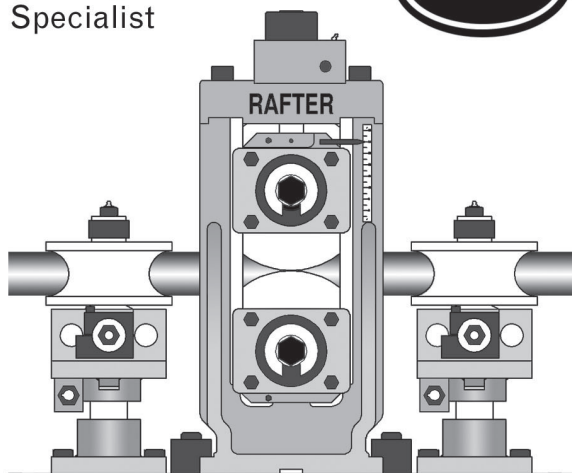
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Ultimate welding chamber ideal for TIG welding materials

Weldlogic Europe, UK, has developed the Black Diamond welding chamber which features a large work space with stainless steel work surface. The chamber has a large transfer load-lock with automatic timed gas purge, while gas welding quality is assured by an oxygen meter display in parts per million.

The workstation is ready to operate, only requiring the fitting of the user's weld system and connection to gas and power. It can be installed on bench top for standing or low seated operation. Other features include attainable gas purity below 5ppm oxygen for bright nickel weld finish, and fully automatic load-lock gas management control system.


The Black Diamond welding chamber provides a system design that is a cost-

effective solution to TIG welding materials reactive to atmospheric contamination. It can also be used for high-end materials that require a controlled and verified welding environment for minimal defect and tarnished work pieces.

The bench top mounted workstation has two 6" x 8" oval polypropylene glove ports mounted below a 10mm thick polycarbonate window. The weld chamber is manufactured in virtually indestructible textured copolymer, and is fully welded and leak tested.

The chamber is fitted with a stainless steel floor plate over box length of 950mm and depth of 550mm within a height of 650mm. A rear panel is removable for occasional cleaning or installing large welding aids. Weld cable connectors are ready for hook



 The Black Diamond welding chamber from Weldlogic

up to torch, ground and power source, including gas feedthrough fitting for torch shield gas.

The load-lock is constructed in the same copolymer, and is fully welded and leak tested. Inner and outer doors of the same material are reinforced for ensuring effective sealing with captive 'O' ring seal. The doors operate using lever latch clamping. The rectangular design provides a 380mm length load-lock with 280mm depth and 280mm height for easy transfer of most large weld pieces. A stainless steel floor plate is supplied for ease of weld piece transfers.

A push button initiates a gas purge to remove air and replace it with argon gas for transfer of weld pieces into the weld chamber without degrading the main chamber argon gas purity. Set time and gas flow ensures quality controlled transfer with minimum gas usage, and an audible sounder announces completion of the gas purge process.

The glove box workstation is equipped with a twin fluorescent light, externally top mounted over a polycarbonate window to provide over 700 lux of lighting within the glove box at the working plane.

The weld chamber is supplied with a gas flow regulating valve and flow gauge to adjust the amount of argon passing through. This regulation allows for the chamber to be set at a flow rate to reduce and hold the oxygen levels to below 5 parts per million.

Argon gas consumption varies according to use but averages below 10 litres per minute during operation and 1 to 2 litres per minute on standby. Initial gas purge of the weld chamber – from air down to weld quality is less than 60 minutes at less than 50 litres per minute gas flow.

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Website: www.weldlogic.co.uk


Brushes for pipeline weld cleaning

Osborn International, Germany, manufactures brushes and abrasives for use in the industrial, trade and private sector. Steel wire brushes are an ideal solution for the cleaning of welded seams.

Wire brushes are a cost effective and practical method for removing welding cinder and beads that prevent the next seam from being applied. The use of cellulose and alkaline electrodes are insignificant, as the brush will carefully remove all types of cinder.


A rotating wire brush will provide a clean welded seam without having to remove up to 30 per cent of the welding material, as is inevitable with a grinding disc. Any defects in the weld seam also become immediately visible, enabling any rework to be carried out promptly.



 Cleaning a welded seam using a rotating wire brush

The use of steel wire brushes reduces the number of seams by a claimed 30-50 per cent, and additional time needed for resoldering work can be avoided. Osborn pipeline brushes can be used for weld cleaning, internal or external cleaning, bevel end cleaning, removal of insulation coats and rehabilitation work. They enable long life, optimal brushing results and safe work.



 A pipeline brush from Osborn

Osborn International GmbH – Germany
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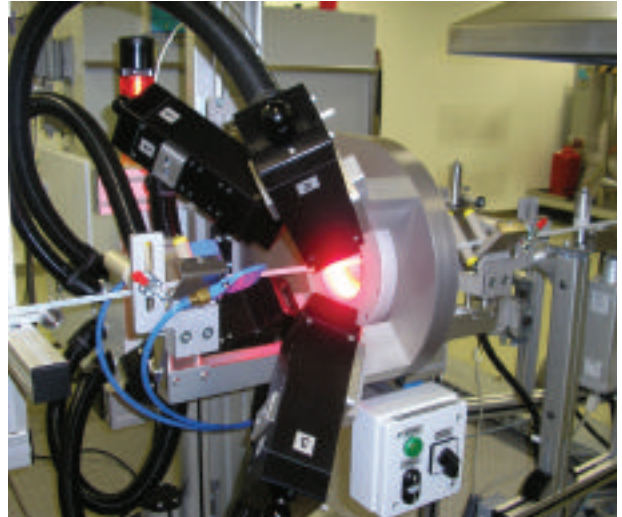
The innovative ProfilControl 5-Medictube inspection system is a system for inline inspection of the quality of medical tubing during the production process and over the complete tube length. Until now, it is claimed such tubes could only be inspected by random checks.


ProfilControl 5-Medictube can be used to inspect tubing made of PVC, PE, PUR and rubber. It can also be used in medicine – cardiac catheterization or dialysis, for example. Due to its compact design, the ProfilControl 5-Medictube requires an installation length of only 250mm, and can easily be integrated into existing production lines. The system is suitable for use under clean room conditions.

The homogeneity of the tube material plays a decisive role, especially for medical tubing. If inhomogeneities are mistaken as blood or other contaminations (ie in transparent dialysis tubes), or an inclusion in the tube wall is misinterpreted as an air bubble, this can cause irritation or lead to false conclusions.

Pixargus PC 5-Medictube detects such defects during the production process, such as holes, fissures, foreign particles or inclusions in the tubing material. The production staff can immediately take corrective action and sort out the defective material. At the same time it helps to avoid such defects in the future.

Besides the fact that the outside diameters of the tubing are often very small, the semi-transparency of the product surface poses another challenge to inspection system designers. This was one reason why automatic inspection of these materials was not possible in the past. In addition, material-inherent reflexions of the lustrous tube surfaces pose a difficult-to-solve problem for optical inspection systems.



 The design of the measuring head is so compact that the system can be easily integrated into existing production lines

Pixargus has now succeeded in combining light and camera technology in a sophisticated design that despite these difficulties makes material defects visible.

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www.jangwuel.com

Portable x-ray warning system

Shaw Inspection Systems, UK, a developer of digital non-destructive testing systems, has launched a portable x-ray warning system for use with temporary radiation barriers.

The new x-ray warning system consists of a central marshalling unit and tripod-mounted warning units. The system is IP64 rated and suitable for both indoor and outdoor use. Each warning unit features an audible siren and three 60W rotating mirror beacons: green for x-ray ready, amber for x-ray imminent and red for x-ray on. The siren sounds at up to 110dB at a distance one metre and can be adjusted by means of an internal volume control.

The system's marshalling unit can drive up to three chains of warning lamps, with up to eight warning lamps per chain. With 60 metre cables between warning lamps each branch can extend up to 480 metres. The marshalling unit is designed to connect to an existing x-ray warning circuit, but can also be used to connect with other emergency stop and warning circuits.

Each system can be supplied with a full set of accessories, including heavy duty tripods, interconnection cables, terminating loop back plugs and wooden crates for storage and transportation.

The portable x-ray warning system meets all the requirements of the UK Ionising Radiation Regulations 1999 (IRR99). It is based on the same electronics as used for Shaw Inspection Systems' high quality x-ray warning lamps.

For customers upgrading existing facilities or for installation into new radiation enclosures, the tri-state warning units are available as a separate product. Each unit includes a bulb failure circuit and indicator, which is activated if any of the bulbs fail. It also includes four additional safety circuits which can be configured to be opened or closed in the event of a bulb failure.

Shaw Inspection Systems Limited – UK

Fax: +44 1493 603 347

Email: sales@sis.shawcor.com • **Website:** www.shawinspectionssystems.com

Fully automatic roller feed saw

Scotchman Industries, Inc, USA, manufactures the CPO 315 RFA roller feed, fully automatic cold saw. This saw provides high quality and uninterrupted cutting on tubing, solids, and extrusions.

The machine is suitable for high volume and long length applications that require very accurate and clean cuts. The CPO 315 RFA is equipped with either a supply table or a full bundle loading attachment. Either system allows the saw to automatically load, trim, cut and sort lengths up to 120" (60" is standard), and

hold ± 0.006 in lengths of material up to 3" in diameter.

With optional equipment, the user can feed directly into a deburring machine or acquire form jaws that can handle thin wall applications without distortion. The CPO 315 RFA saws are available in ferrous and non-ferrous models.

Scotchman Industries, Inc – USA

Fax: +1 800 843 5545

Email: info@scotchman.com

Website: www.scotchman.com




 The Scotchman Industries CPO 315 RFA/ST fully automatic cold saw

'Largest' inflatable pipeline stopper for temporary jobs

The pipeline stoppers division of Huntingdon Fusion Techniques Limited, UK, has claimed to have manufactured the largest inflatable pipeline stopper, measuring 2,000mm in diameter. It is designed for the overnight and temporary stopping of large diameter pipelines.



 The 2m diameter pipeline stopper from Huntingdon Fusion Techniques

As pipelines are being laid, it is essential to close them off overnight to prevent the entry of animals and human beings, and also to prevent the ingress of dirt or potentially contaminating liquid or solid materials. Mechanical stoppers are often used for smaller pipelines. However, as pipeline diameter increases, the availability and transportation of such large mechanical stoppers becomes restrictive, so lightweight, low cost, off-the-shelf inflatable stoppers become a viable alternative.

Pipestoppers™ inflatable stoppers are available from 2" to 84" (50 to 2,000mm) as standard, but can be made to special dimensions and shapes, and with special materials.

Similar stoppers are available in rectangular shapes, with heat resistant materials and for catching hydrocarbon fluids and metal debris in vertical cutting operations. The stoppers are delivered with a suitable length of inflation hose and a leak tight shut off valve.

Huntingdon Fusion Techniques Limited – UK

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Range of carbon and SS pipe and fittings

Petek Boru Sanayi, Turkey, is a manufacturer of carbon and stainless steel pipe and fittings, and polyethylene pipe and fittings. Established in 1979, the company's current production capacity of spirally welded tube is 15,000t per year.

The company's manufacturing programme includes spirally welded steel pipes (carbon steel and stainless steel), and carbon steel and stainless steel fittings (including elbows, tees and reducers).

Petek Boru also carries out coating and lining of pipes, with techniques including polyethylene coating, fusion bonded epoxy coating and lining, solvent-free epoxy coating and lining, bitumen coating, concrete lining, and thermal insulation. Other services include HDPE 100 polyethylene pipe and fittings, chimney pipe, and victaulic pipe.

The company's spirally welded steel pipe production line – which operates via continuous online UT (ultrasonic test) control – can manufacture pipes between 8" and 48" (219.1mm to 1,219mm) diameter

range, with a wall thickness of 3.2-12.7mm.

Carbon and stainless steel elbows and reducers between diameters ½" and 8" are produced at the company's fittings unit. All wall thicknesses between Sch 5 and Sch 80 are stress relieved. For fittings items between 10" and 48" in diameter, the segmented welding (mitre) method is used. Pipes between ½" and 6" in diameter are also threaded and coupled in this unit.

The company has EN 10217-1 and ISO 9001-TUV SUD certifications, and can produce according to ASTM A-53 standards. The company has also started building a new 40,000m² facility in Sakarya, Turkey, to increase its production capacity.



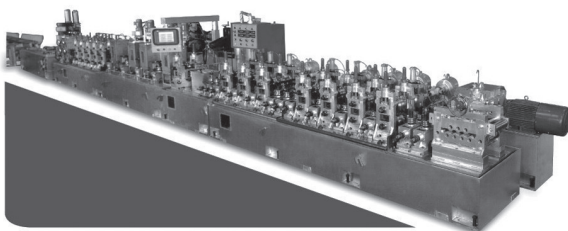
Petek Boru manufactures pipes and fittings in carbon and stainless steel

In addition to its manufacturing activity, the company sells seamless pipes and fittings, ductile iron pipe and fittings, sewage pipe, irrigation pipe, natural gas and petroleum pipe, boiler pipe, construction pipe, rectangular and square sections, and cold drawn pipe. The company exports 30 per cent of its annual production and sales turnover.

Petek Boru Sanayi AS – Turkey
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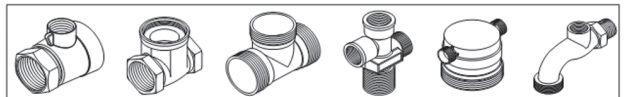
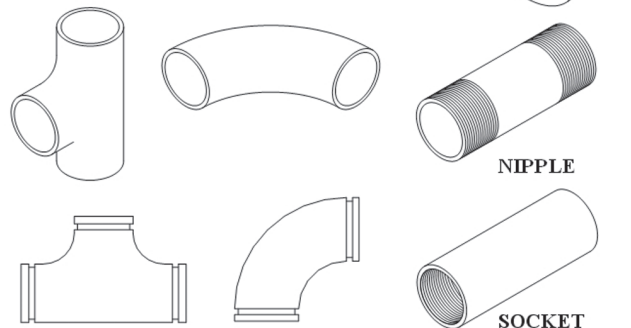


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New patent for monitoring system manufacturer

OES Inc, Canada, has established a new patent (US7,333,906 B2) for quality analysis using cumulative deviation determination, which the company refers to as 'CDA'. The patent is used in the company's line of process variation monitoring systems for quality assurance in manufacturing.

Various industries require objective quality monitoring systems to ensure the quality of manufacturing processes, the quality of resultant products, or both. Signature analysis is a well-established quality assurance technique to ensure the process is consistent and repeatable.

The signature, such as a force vs time curve, is unique to each manufacturing process. A reliably consistent process results in a signature that is uniform and stable cycle after cycle. Variance in the process creates changes in the signature that can be identified by analysis – changes that can reflect quality problems with the part being produced.

The newly patented CDA provides improved process quality determination that does not suffer from the inherent drawbacks of other common signature analysis methods, such as peak, area and envelope. CDA determines both the negative deviation and positive deviation for a signature, or a critical portion of it, to determine whether the signature is within an acceptable range, allowing OES process monitoring systems to more

accurately determine the stability of a process cycle.

OES Inc develops and deploys 'in-process test and monitoring' solutions for a wide range of applications, including tube end-forming, crimp forming, riveting, wire crimping, and other pressing and forming applications.

OES, Inc – Canada
Fax: +1 519 652 3795
Email: oes@oes-inc.com
Website: www.oes-qualityassurance.com

High precision tubing from India

Siddhi Engineers, India, is a manufacturer and exporter of aluminium precision drawn tubes, rods and profiles. With over 20 years' experience, the company is certified according to ISO 9001:2000.

The company can achieve product tolerances as close as $\pm 0.025\text{mm}$ in OD and ID, by using specially designed tools and materials, including a specially developed alloy. This alloy is used to make cryogenic fuel supply lines for the Indian Space Research Organization (ISRO). Rectangular tube in the length of 60m in coil form is developed for the same organisation.

The company also has expertise in the field of precision pneumatic cylinder tubes. Its product range of precision aluminium tube caters to the vacuum cleaner, mopping and gardening equipment segment. The company can provide tolerances of H10 for sizes up to 40mm ID. Over 40mm ID, the tolerance is H11.

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Delivery of automated heat exchanger manufacturing solution

Eagle Precision Technologies Limited, Canada, has designed, manufactured and delivered a unique machine for the automated assembly of heat exchangers. As a result of a customer request, Eagle was challenged to design and manufacture a machine for the assembly of heat exchangers in a more effective process, to offset the higher cost of the technology used to meet new efficiency standards.

The main component of home heating furnaces, both forced air and hot water, is the heat exchanger. This component takes the heat produced by burning fuel and transfers it to the water or air for distribution throughout the house. The HX (heat exchanger) tubes must be assembled to the HX panel ensuring an airtight lock so that internal combustible gas does not escape into the ventilation chamber of the furnace. This lock must also be verified to a predetermined 'leak rate' that adheres to industry standards.

 A typical heat exchanger assembly




The most common method for fastening the two components is the 'ridge lock'. This process involves introducing a set of segmented expand tooling into the tube and expanding a bead around both sides of the panel flange. The result is an interference lock between the HX tube and the HX panel. Eagle has supplied this proven technology to the industry for over 20 years. The problem has always been the slower cycle times required to complete larger, multiple tube panels. Also, inspection of the completed assembly required a second operation.

Eagle's new line of fully automated heat exchanger assembly machines for the HVAC industry offers the latest in automation technology. With this new platform, the HX panel is scanned and loaded into the assembly station. The correct part program is automatically selected and with the touch of a button, the sequence is initiated.

When the next configuration is scanned, the new parameter is automatically set, allowing for zero changeover time. After the components are locked in place, the entire assembly is leak tested before being ejected for transport to the final furnace assembly station. This new turnkey solution offers users decreased floor-to-floor cycle times, fully programmable indexing for multiple part configurations and fully integrated leak test capabilities for assured real time quality assurance of components. Eagle's HVAC assembly solution includes heat exchanger lines capable of assembling 80-90+ per cent dual stage efficiency furnace components.



 The new Eagle 80+ HVAC assembly machine

According to customer estimates, the new automated solution is 48 per cent faster than the previous manufacturing process, providing significant production savings.

Eagle Precision Technologies Ltd – Canada

Fax: +1 519 756 0195

Email: sales@eaglept.com

Website: www.eaglept.com

A growing range of ERW tube and pipe

Conros Group, India, is the manufacturer of black and galvanised ERW steel tube, pipe and hollow sections from 1/2" to 4". A diversified company with facilities in Khopoli, India, Conros undertakes activities including steel manufacturing and trading.

The group has expanded its capacities by introducing new state-of-the-art equipment, imported from USA and Europe. The equipment will be used to manufacture larger diameter pipes and API line pipes from 2 1/2" to 8" diameter, and square and rectangular hollow structural sections.

Conros manufactures tubular pipes in 1/2" to 4" diameter, and square and rectangular sections from 15x15mm to 100x100mm. The products are produced according to international and Indian standards including IS, ASTM, DIN, BS, EN, JIS and ISO.

The company's upcoming developments include API 5L accreditation (for 3" to 8" up to grade X70) by December 2008, and UL listing (ie UL 6, UL 797 and UL 1242 for conduits) also by December 2008. FM approval (for fire fighting systems) and CE marking approval (for European markets) are both under proposal.

Conros Group – India

Fax: +91 22 2660 5454


Email: info@conros-group.com

Website: www.conros-group.com

New tube straightening and cutting machine

Ravni Technologies, France, has launched a new tube straightening and cutting machine. The machine is designed to achieve a very good straightness of around 0.1mm per metre. By using a rotary straightener equipped with preset dies, setting is easily carried out, and the straightness quality does not change along the coil.



 The new straightening and cutting machine from Ravni Technologies

The cutting operation (fixed or flying device) is operated by a slitting saw or a wheel according to specific requirements. The machine can straighten stainless steel, copper, aluminium or coated tube, from 40 to 80 metres/min.

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Eliminating welded tube connections

Selection of fitting technology depends on pressures, temperatures and media. However, when applications demand very high reliability, or involve pressures beyond the scope of other industry-standard fittings, choice becomes limited and the cost of the

fitting itself can be a small fraction compared to the cost of installation.

Phastite[®], from Parker, is a new type of tube connector system for permanent connections and high pressures (up to 20,000 Psi).

Designed as an alternative to welded fittings, the technology uses a patented method of sealing with four internal ridges that grip the tubing and ensure 100 per cent leak-tight performance, providing the means to reduce assembly times by up to 100 fold compared with welding.

Welded connections are used for long-term permanency. Effectively, when the fittings are in the same material as the tubing, they become an integral part of the system. Drawbacks are the considerable cost in labour and equipment, and the time required to fabricate each joint.

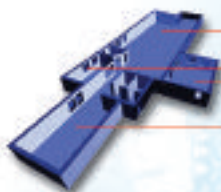
Installers of welded fittings also face extra difficulties. When working in many environments, such as oil and gas platforms, 'hot work' permits are often needed, involving administration and safety procedure work, all of which adds to the cost of the field work. If testing is also required – using dye penetrant or X-ray techniques – then the costs can escalate substantially.

Phastite is designed to reduce assembly time by using compact, hydraulically operated tools. This approach allows fittings to be positioned closely against panels and bulkheads, avoiding having to bend the tubing to engage the tool.

After sliding each tube end into the fitting, the tooling jaws are positioned around the loose assembly. The tool applies hydraulic



 The new Phastite fitting brings simplified assembly to permanent-connection and high-pressure applications currently served by welded technologies



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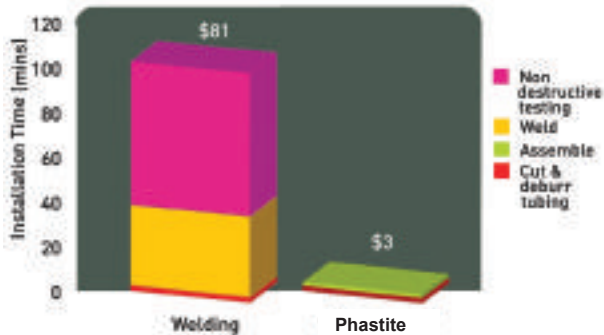
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Phastite tooling allows assembly directly against panels and bulkheads

pressure to the collar(s) of the fitting. As the collars move inwards they force the profiles of the internal sleeve to grip the tubing, providing a high-pressure, leak-tight seal. Installation is complete when a metal-to-metal 'dead stop' of the collars is reached. The purpose-designed tool ensures right-first-time assembly (with other tube fitting systems, a degree of rework is often required). Assembly time is measured in seconds, and the process requires no consumables.

Phastite's sealing mechanism is based on a series of clearly defined internal ridges that create, by radial compression, a secure seal without weakening the tubing surface. The ridges effectively grip in a way that retains all of the tubing's strength.



The relative scale of fittings assembly costs based on representative labour charges and the author's timings

These profiles also make the fitting particularly suitable for vibration prone environments. In testing to verify conformance with BS 4368, for example, (which calls for 20 million vibration cycles at between 23 and 47 Hz – some 238 hours of testing in total), Phastite fittings were left on the rig until destruction. The fittings still retained their seal even in excess of 400 hours. At this point, the test frequency was increased beyond the range of the standard, and the fittings continued to operate for another 40 hours. Tolerance of vibration (as well as shocks) is a critical area of performance in many applications.

Article supplied by Mr Jim Breeze of Parker Instrumentation

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Stainless steel tube manufactured using TIG welding

Quality Stainless, India, is a manufacturer of welded stainless steel tube and pipe, using its own cold rolled stainless steel coils. The company's two product divisions – tube/pipe and coil/strip – are ISO 9001:2000 and AD-2000 W2 certified under Lloyds Register and TUV. The products are manufactured as per DIN, EN, ASTM, JIS, SS and ISI standards.

The company's product range includes sizes from 1/2" to 4" OD, and 1/2" to 6" NB, with thicknesses from 0.5mm to 4mm, and grades including 304/304L, 316/316L/316ti, 321, 439/409, 430, low Ni grades and duplex.

Testing facilities include eddy current (Dr Foerster, Germany), hydro-testers, UTM, hardness test, inter-granular corrosion, microstructure and other necessary mechanical tests.

The company has a large customer base in industries such as heat exchanger, pressure vessels, food processing and beverage equipment, the dairy industry, power turbines, chemical and pharmaceutical,

automobile, oil and gas, and other general engineering industries.

Quality Stainless Pvt Ltd – India
Fax: +91 11 2625 2633
Email: contactus@qualitygroup.in
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Fast and easy coating and wall thickness measurement

The new Sonatest CT-Gage and CT-Gage DL (data logging) ultrasonic thickness gauges enable precise and fast wall and coating thickness measurements. Not only do both models measure coating and wall thickness quickly and accurately, from only one side, but they automatically measure and eliminate any coating from wall thickness measurements. This allows users to locate the finest corrosion and pitting-without removing the coating.

It is possible to create and store 64 custom setups for common testing applications. Switching into the time based B-Scan

view enables a cross section view of the inspected material. Enabling the high-speed scan function will give the user 50 readings per second.

Five user-selected operating modes are included: coating on, coating off, thru coat and coating only. All measurements are temperature compensated. Minimum coating thickness is 0.0127mm, allowing the gauge to precisely measure thin coatings with the advanced waveform analysis technique. A large backlit graphic LCD features easy-to-read fonts, graphics and display codes which show all critical settings.

CT-Gage features include auto probe zero, auto probe recognition, auto temperature compensation, and a standalone coating only mode. The standard pulse-echo and thru-paint echo-echo modes are standard features.

The CT-Gauge data-logging model adds built-in memory, with an RS-232 output for transferring data to a printer or PC. Data files can be user-set for a 'grid type' structure (data formatted in rows and columns) or a 'sequential' file (all data appears in a single column).





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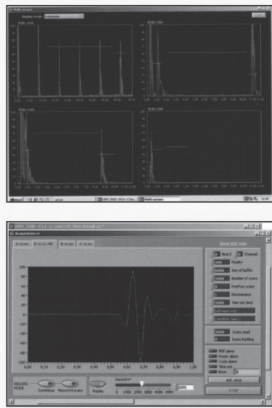
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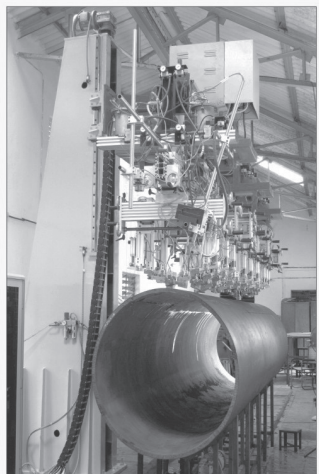
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In addition, each file can be set to store 'data only' or 'data plus B-scan' graphic. The CT-Gage DL can store 16,000+ readings, with B-Scan captures and all gauges settings and features. Alternatively, it is possible to switch the graphics mode off and store over 210,000 readings.

Sonatest Ltd – UK

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Email: corinna@sonatest.com

Website: www.sonatest.com

Tenova win major Brazilian furnace contract

Vallourec & Sumitomo Tubos do Brasil Ltda, a joint venture formed in mid-2007 by France's Vallourec and Japan's Sumitomo, has chosen Tenova Melt Shops to supply a greenfield plant in Brazil comprising Consteel®, an electric arc furnace and a dedusting system.

The facility will be installed at the new seamless steel tube production centre to be built in Jeceaba, in the region of Minas Gerais, an area with some of the world's richest iron-ore reserves.

The 140t electric arc furnace, fitted with the Consteel® system, will turn out more than 1 million tons of liquid steel a year. Production is expected to begin in 2010.

"This is the first Consteel installation in South America," says Mr Raimondo di

Carpegna Varini, senior vice president of Tenova SpA, "Moreover the agreement was drawn up in just nine months, a record time for a project of this scale."

The plant is claimed to be the first in the world to use an innovative metal feed mix for an electric steel mill. Mr Francesco Memoli, Tenova's area manager for North and South America, explains "The furnace can be charged with up to 80 per cent of solid and liquid pig iron, including more than 50 per cent of hot metal. This combination will guarantee high productivity and cut costs, while the Consteel® technology will reduce environmental impact."

The project confirms Consteel as leading technology in the market for high-quality plants. It also provides Tenova with a major reference in an area offering some of the richest reserves of raw materials for steel production.

Tenova – Italy

Fax: +39 02 4693026

Email: tenova@tenovagroup.com

Website: www.tenovagroup.com

Sumitomo Metals – Japan

Fax: +81 6 6223 0305

Website: www.sumitomometals.co.jp

V & M – France

Fax: +33 1 49 09 39 90

Website: www.vallourec.com

Iranian contract for latest vacuum tube welder technology

Profile Saman Sepahan, Iran, has signed a contract for 8 new Emmedi vacuum tube welders, which offer output power of 200kW and 350kW. The welders are designed to manufacture carbon steel water and gas tubes.

Emmedi, part of the Saet Group, has a range that includes high frequency inline induction welders for metal pipes, medium and high frequency equipment for heat-treatment, inline bright annealing equipment, and seam/full body annealing systems.

The merging of Emmedi into the Saet Group has given the company the possibility to improve technological innovation and research. Emmedi has developed new products such as its solid-state welder, recently presented at Tube 2008 in Düsseldorf.

The company has sold 40 pieces of equipment worldwide in the last two years. The company's 'Classic' range of vacuum tube welders is available with between 50kW and 1,200kW output power.

Emmedi (a division of the Saet Group) – Italy

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Email: sales@emmedi.it • Website: www.saetgroup.com

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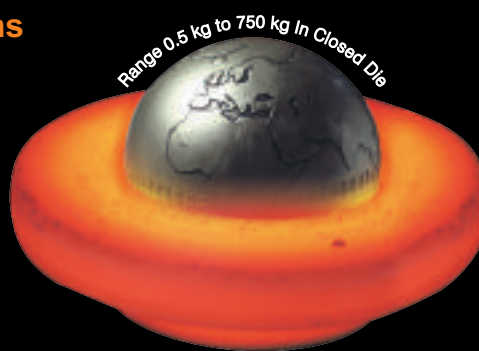
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Sold Out: Takes



As regularly evidenced in the industry news section of *Tube & Pipe Technology*, there is an increasing clamour from international companies to establish regional offices and subsidiaries in China.

Scattered across the length and breadth of China's enormous 9.6 million km² territory, a profusion of offices and manufacturing facilities have been set up from Hong Kong and Guangzhou, to Shanghai, Tianjin and Beijing.

And there is little wonder as business in China remains highly lucrative and seemingly boundless. In 2007, the Chinese economy stood at US\$3.2 trillion GDP (purchasing power parity), with around US\$75 billion of foreign direct investment (FDI).

China's tube and pipe import and export activity continues to prosper, with the government's 11th five-year plan (2006-2010) now well underway. The new five-year plan includes the

construction of four major pipelines for oil and natural gas transport (25,000km in total), with completion due in 2010.

To complement this economic and industrial vitality, the upcoming Olympic Games in Beijing are a fine opportunity for China to break down barriers and showcase Chinese culture. Likewise, Tube China 2008 will also be a great place for the tube industry to remove business barriers and engender cooperation.

Tube China *the Gold Medal!*



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INTERNET RESOURCES



www.tubechina.net



www.cnto.org (China tourism)



www.meet-in-shanghai.net



www.tripadvisor.com

EXHIBITOR PROFILES



Abbey International designs and manufactures a wide range of welded tube and pipe mills, and advanced quick-change systems for new mills and for retrofitting.



Abbey International manufactures welded tube and pipe mills

The company also offers a large selection of chain and hydraulic draw benches with up to 450,000kg pull and up to 60m long. Abbey International is the exclusive distributor of Abbey Etna pipe mill equipment.

Website: www.abbeyintl.com



Ad Tubi Inossidabili SpA produces welded tube made of stainless steel, duplex steel, superduplex steel, and exotic alloys. The product range covers TIG welded round section tubes, with a dimensional range from 7.24mm ($\frac{9}{32}$ "") to 50.8mm (2"), and WT from 0.4mm (0.0157") to 3mm (0.1181").

The company is highly specialized in the production of tube for heat exchangers, with special lengths/tolerances, in bright annealed executions. This type of product represents an average of 65 per cent of the company's complete output.

The company possess ISO 9001:2000 and AD2000W0 certifications with TUV and Lloyd's Register approval. Due to a fully controlled production system, certified production process and a fully equipped

laboratory, Ad Tubi offers its customers a state-of-the-art products.

The company has recently undertaken expansion with the construction of a new factory. This allows the company to increase the quantity of material produced and also the range of dimensions offered, due to the introduction of new welding lines.

The new factory is equipped with new, modern machines, while continuous technological research and development assure the highest quality standard.

Website: www.adtubi.com



Ajax Tocco Magnethermic Corp is one of the world's leading manufacturers of induction melting and heating equipment, with worldwide operations in nine countries. Along with serving industries such as steel, automotive, forging and foundry, Ajax Tocco has a global commitment to the tube and pipe industry.

The company manufactures induction-heating systems that process up to 120t of high quality pipe and casing per hour with consistent quality and ovality. According to the company, this induction heating equipment provides a reliable and flexible supply of heat, with outstanding control. The Ajax Tocco converters facilitate this flexibility with a patented, wide operating window. This allows a larger range of sizes to be processed in one induction coil size without the need for capacitor or voltage switching.

Converting the barrel furnaces to induction heating for stretch reducing, enables the use of existing handling equipment and the advantage of fast, controllable, energy saving induction heating. The results can lead to dramatic savings in space, reduced energy consumption, improved quality and the benefit of recipe control.

Ajax Tocco is at the forefront of API pipe production for the oil and gas industry. Because casing drill pipe and line drill pipe reliability is crucial, the company believes it is a highly dependable source of supply systems to harden and temper pipe, casing and couplings to full API specifications.



Heating a pipe using the machinery from Ajax Tocco

An industry expert for tube and pipe heating, Ajax Tocco specialises in seam annealing, solution annealing, bright annealing, coating, bending and forming.

Website: www.ajaxtocco.com



Baofeng Enterprise is a large stainless steel manufacturing group with four interrelated branches. Established in 2002, the company has an annual production capability of 30,000t of austenitic steel and 10,000t of stainless steel pipe. The four branches of the company are Wenzhou Baofeng Special Steel Co Ltd, Baofeng Steel Industrial Co Ltd, Lishui Baofeng Welded Pipe Co Ltd and Wenzhou Baofeng Perforation Co Ltd.

In 2006, the company's total output was valued at over 1,000 million Yuan. The company's products are found in a host of applications including oil and gas, chemicals, power plant, food production, nuclear power station, smelting, aerospace, papermaking, shipbuilding, environmental protection, heat exchanger, water resources, and electricity.

Baofeng is a manufacturer of stainless steel tube from \varnothing 6-630mm



The product range includes bars, quadrate tubes, rectangular tubes, seamless stainless steel tubes (Ø 6-630mm) and welded tubes with a diameter of over 114mm. These products are manufactured in accordance with standards including BS, ASTM, JIS, DIN and CEN.


Baofeng products have been exported to south Asia, the Middle East, USA and EU.

Website: www.wzbftg.com



Bronx/Taylor-Wilson provides technology to the metals finishing equipment industry. The company's innovations in cross roll straighteners, hydrostatic pipe testers and end-finishing machines have led to over 1,000 installations, including more than fifty new installations in the last few years.



 A 10-roll straightening installation from Bronx/Taylor-Wilson

The company's team of design engineers, sales executives and support staff with offices in Asia, Europe and the US are able to provide both new and retrofit finishing solutions.

Website: www.btwcorp.com



H Butting GmbH & Co KG produces longitudinally welded stainless steel pipe and fittings (eg elbows and tees), vessels, piping spools, and special piping components. These products are manufactured from a range of materials including stainless steel (eg 316L, duplex), titanium alloys and nickel alloys.




 High quality prefabrication of pipe and fittings

The company has a Chinese subsidiary, Butting (Shanghai) Co Ltd, which has recently won an order from TGE Gas Engineering GmbH for a Japanese shipyard. Butting Shanghai received the order to provide and install the pipework for an ethylene-tanker, and the Butting-Chinese team took on the complete prefabrication process.

This is the second order for the young Chinese subsidiary from the sophisticated Japanese end customer. In 2006, Butting China successfully managed to complete the first project to build an LPG tanker for the shipyard.

Butting China carried out these orders with pipes delivered from Butting in Germany, which are manufactured from the material TP 316 or TP 316L in the range from DN 25 to DN 400. To ensure extensive value creation, high-grade semi-products are used in production, with planning and design undertaken on CAD software. These products were shipped from Germany to China and delivered to TGE.

Butting China will carry out the complete prefabrication of all pipework, whereby the pipes and fittings are added. In order to fulfil the requirements for pipe classes with a pressure test and 100 per cent x-ray test, Butting China had to demonstrate its expertise in welding techniques. The execution of the welding joints was carried out according to welding instructions (WPS) and valid procedural tests (PQR), prepared and supported by Butting, Germany.

 Prefabricated pipe parts for the chemical industry



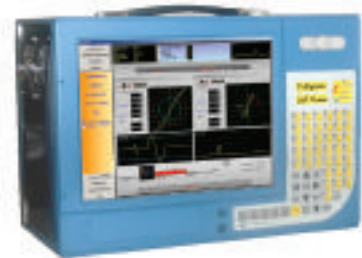
Prefabrication and the subsequent acceptance of the prefabricated pipe parts took place according to the instructions of the local Bureau Veritas on the work premises of Butting China. In line with the company aim of optimising product quality, the surfaces were also subjected to a full body pickling of the complete, ready to install components.


In partnership, Butting Knesebeck and Butting China are able to provide the Chinese market with a range of requirements for stainless steel pipe and fittings.

Website: www.butting.de



Contrôle Mesure Systemes (CMS) is a manufacturer of eddy current inspection systems, with a full range of online and offline equipment for wires and bars, tube and pipe, plate and sheet, and automotive parts. The entire range of the company's products meets the requirements of quality standards including API, ASTM, and DIN.



 CMS manufactures a range of eddy current inspection systems, including the Zet@Master

At Tube China, CMS will present the brand new Zet@Master model that offers a progressive solution to inspection problems. The company has also recently launched Zet@premium and the Zet@ Micro, which completes the CMS range to cover all testing tasks from the simplest to more complicated applications.

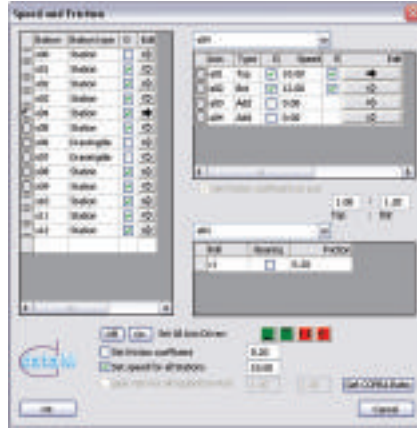
Despite being one of the smallest instruments on the market, the Zet@Master offers unique features. These include multi-channels, multi-frequencies, frequency range from 10Hz to 10MHz, and supervision system, which allow control of all peripheral devices.

↩ A special feature – sorting management and reporting – provides reports that give defects location, type, and the number of good and bad parts. The reports also include different rates with a virtually unlimited number of parameter sets. Remote control is possible via the internet, enabling supervision and support from anywhere in the world.

With this full range of instruments, it is possible to achieve the best solution to any task for flaw detection, material sorting, and hardness or surface treatment inspection.

A complete range of accessories allows CMS to offer a solution corresponding to inspection needs in all situations.

Website: www.cmseddyscan.com



ⓘ A sample of the software display

also reduce or eliminate annealing, thus reducing energy and material costs.

Involving everyone in the production chain – the roll tooling engineer, tube mill operator, and the fabricator – is the key to making the greatest gains in efficiency. The company will present its new version of roll design and process simulation software, branded Copra® RF and Copra® FEA RF, which offers enhanced features for the design of roll tooling and the simulation/verification of the forming process.

Copra® RF, for example, now supports the automatic design and analysis of 4-roll fin passes and 5-roll welding passes and avoids user's manual interaction in these specific cases. It also allows for the design of cage forming and linear forming tooling.

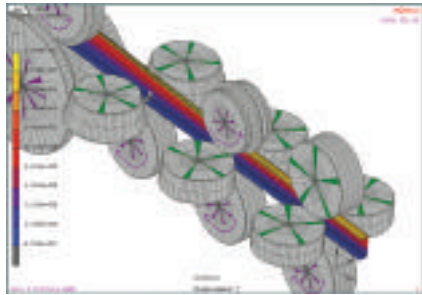
In the production of extremely thin walled welded tubes the coil is often drawn to shape rather than roll formed. With the latest version of Copra® RF, it is also possible to integrate the drawing dies within a roll forming tool set. This allows the analysis of the complete forming process and to predict and optimise the final tube's properties.

Website: www.datam.de



data M develops software to help engineers optimise tube properties and understand the strains a tube undergoes as it is manufactured and later fabricated. This knowledge can help engineers reduce the amount of material necessary and

ⓘ Copra® RF now features the ability to integrate drawing dies within a roll forming tool set



With over 25 years of experience, Elmaksan is the manufacturer of an extensive machinery range including pipe and profile lines, cut-to-length lines, slitting lines, multi blanking lines, trapeze lines, open profile lines, slitting knives and spacers.

The company also offers coil process equipment, automatic packing machines, levellers, rotary shears, multiple cutting units and associated spare parts.

Each of these lines can be modified to meet specific production needs of the users.



ⓘ Elmaksan offers pipe and profile lines and other tube production machinery

Elmaksan operates two large facilities, one located in Istanbul (5,000m²) and the other in Kocaeli (22,000m²), staffed by over 150 people.

More than 80 per cent of the total volume of production is exported abroad to 40 different countries all over the world.

With a constantly expanding product range, the company's machinery is designed, manufactured and supplied according to the highest quality standards.

Website: www.elmaksan.net



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Emmedi (Saet Group)

Italy

Emmedi, the welding and annealing division of the Saet Group, will present its latest solid-state welder to the Far East market. Recently shown at Tube 2008 in Düsseldorf, this 250kW output power welder is based on a Mosfet inverter and can work up to 450kHz.

The welder power supply is a three-phase full bridge thyristor rectifier. The inverter is a current fed type, composed by the correct number of modules (rated 25kW of power each) connected in parallel.

The modular structure and a complete diagnosis system enables quick and easy maintenance in order to reduce production stops.



Emmedi will exhibit its latest solid-state welder, which is based on Mosfet technology

To deal with technical problems without the requirement for onsite presence, Saet Group offers a special service in remote mode. Called teleservice, it allows the company's technicians to operate from its premises directly into the welding unit installed at the customer plant.

A global partner for induction with local sales and service support, Saet works with Indian and Thai partner companies, IEI and ISE. The company also has a Chinese division to assist regional customers in finding and delivering the best solutions.

Website: www.saetgroup.com



Euromáquina

Spain

Euromáquina is a leading company in the supply of second-hand equipment, with a complete brand of high quality used equipment for the tube and bar industries. This range includes tube mills, automatic bundlers, HF welders, flying saws, tube finishing equipment (chamfering, threading, hydrotesting, straightening), slitting lines, peeling and straightening machines for bars.

The company is not only a machine dealer, as it offers fully advanced services and turnkey projects, such as dismantling, engineering of new civil works, revamping of old equipment, installation, start-up and production training. As agents of leading manufacturers, Euromáquina is continually updated on new technology and can obtain all necessary spares.

Euromáquina can also combine new and revamped second-hand machines in one line. The company has supplied and installed equipment and complete lines to regions including France, Italy, Germany, Spain, Hungary, Poland, Turkey, the Middle East, Mexico, Argentina, and Chile.

Website: www.euromaquina.com

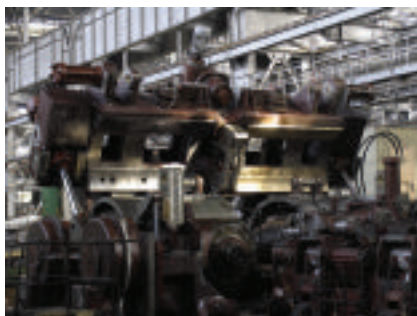


EZTM JSC

Russia

Electrostral Heavy Engineering Works (EZTM) designs and manufactures equipment for the production of steel seamless hot-rolled, welded and cold-rolled tube. The company's range also includes equipment for bar, balls, rings, profiles, oil

EZTM manufactures a large range of tube machinery, including the piercing mill



film bearings, hot and cold blast valves, rolls for hot and cold rolling, and other equipment for the metallurgical, mining, oil and gas and cement industries.

EZTM JSC carries out supervision and adjustment of equipment at a customer's location, personnel training and delivery of spare parts.

Website: www.eztm.ru



Fontijne Grotnes

The Netherlands

With 40 years of experience, Fontijne Grotnes is active in the design and manufacture of pipe end and full-length pipe expanders. The company has recently won an order for a full-length pipe expander from a Chinese pipe manufacturer. This order is a good development for the company's aim to be more active on the Chinese LSAW pipe market.



Fontijne Grotnes manufactures pipe end and full-length pipe expanders and straightening systems

At Tube China, Fontijne Grotnes will promote its newly developed straightening system. The company will also present details on its improved horn and drawbar system, which features patented connections with a cylinder and expander head for mechanical expanders.

The newly developed straightening system guarantees straight pipes within 1/2-API and DNV standards. It is designed in such a way that it can also be mounted on existing expanders. This process will improve the straightness of the pipe in all directions, where other systems only control the straightness in the plane of the weld seam. Tolerances for ovality and straightness of pipes are becoming increasingly important to the later laying of pipes in the field.

Fontijne Grotnes is capable of improving the horn and drawbar system of competitive

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← systems. Increased reliability of the full-length pipe expander is achieved by replacing the drawbar with its patented connection system. This prevents the problem that often occurs of frequent breakage of the horn and drawbar of full-length pipe expanders.

Website: www.fontijnegrotnes.com



GH Electrotermia SA
Spain

GH Group is a supplier of induction heating equipment and installations, with main offices in Spain (GH Electrotermia SA) and affiliates near international customers in Germany, France, Mexico, Argentina, Brazil, India, China and Korea. The group is dedicated to providing superior induction heating equipment and solutions, with more than 4,000 references in 50 countries.

The company's range of solutions take account of heat treatment installations, heating for tube welding equipment, continuous tube annealing, tube end stress relief, and heating for forming and tube heat



ⓘ GH provides solutions for induction welding

treatment. In addition, the company offers cable pre and post-heating, bonding, and shrink fitting installations.

The GH Group offers an entire range of modern, high frequency power supplies and equipment for induction heating applications, from MF IGBT inverters to HF Mosfet inverters. In the area of tube induction welding, which often requires frequencies up to 500kHz, the natural, most reliable and efficient component is the Mosfet transistor. This technology is provided by GH Group's latest developments in variable frequency and automatic load adjustment.

The company has launched Transithermic™ generator solid-state welders, which can

weld any tube, allowing for any specifications of diameter, thickness and material.

GH Group serves a range of customers including a large number of major car manufacturers and global suppliers. Other applications include continuous pipe welding, wire heating, home appliances, and brazing.

Website: www.ghe.es



Guangzhou Hongda
China

Founded in 1988, Guangzhou Hongda Steel Co Ltd is a specialist manufacturer of steel tube and pipe. The company's main product is stainless steel tubes, while the company is also able to produce a range of other pipes, particularly seamless carbon steel pipes.

The production range for stainless steel is OD from 4-325mm and wall thickness from 0.5-15mm. The available size for seamless carbon steel is up to 18".

Website: www.hongda-steeltube.com

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Guilin Lijia Metals Co Ltd China

Guilin Lijia Metals Co Ltd is specialised in the manufacture of a wide variety of copper and copper alloy tubes, rods, bars, shaped tubes and profiles. The company has more than 30 years of experience in copper and copper alloy research and manufacture.

The products are widely used in the fields of machinery, electronics, heat exchanger, sanitary, oil exploration, hardware, construction and decoration.

↓ Copper and copper alloy tubes, from Guilin Lijia



All production and testing equipment used in Guilin Lijia has been imported from Germany, Japan, UK and Switzerland. Guilin Lijia has been awarded certificates such as ISO9001, ISO14001, OHSAS18001, TÜV and DNV.

Website: www.lijiabrasstube.com



Haitima Corp Taiwan

Founded in 1984, Haitima is a leading manufacturer of valves and fittings in Taiwan.

Products include ball valves, gate valves, globe check valves, and butterfly valves, together with pipe fittings, quick couplings and sanitary fittings, seamless steel pipes, welded pipes, ERW pipes, and other accessories (such as expansion joints and flanges).

The company operates under a Quality Assurance System, which has awarded



↑ Haitima Corp manufactures a range of valves and fittings

it the ISO 9001, API 607 approval, CRN, DVGW and PED module D1 certificate.

Website: www.haitima.com.tw



Hart bv The Netherlands

Hart bv has been a leading distributor of heat and corrosion resistant materials for over 40 years. The company's range includes nickel, Monel®, Incoloy®, Hastelloy®, and titanium alloys. The company's products are supplied globally to the chemical, petrochemical and offshore

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industries. In addition, complete packages of pipe, flanges/forgings, plate, bar, and fittings are supplied to fabrication companies, contractors, engineering companies, and direct to the oil and gas industries.

Hart operates in conjunction with partners specialised in these materials. The company supplies both from extensive material stocks and, in the case of larger quantities and longer deliveries, through major nickel and titanium suppliers. Since the start of 2008, the company offers an extensive stock range of seamless pipe in alloy 200/201, alloy 400, alloy 600, alloy 625 and titanium grade 2.

Website: www.hartbv.nl



Established in 1968, Hypertherm offers expertise in metal cutting based on plasma technology. The company's range of cutting products features a number of innovations to improve cut quality and service life, enhance productivity, and lower operating costs.

Hypertherm is involved in constant research and development to ensure an expanded range of products for metal cutting. The range includes plasma arc cutting systems, torches and consumables, laser cutting heads, torch height controls, CNCs and software for process automation.

Website: www.hypertherm.com/eu



The International Tube Association (ITA) is the world's largest association of tube and pipe engineers and its presence will be geared towards offering assistance to tube and pipe professionals. An emphasis will be placed on the membership benefits available, including support services at the major tube shows worldwide and the educational opportunities provided through technical conferences and seminars.

Existing members can ensure they are taking full advantage of the enhanced range of membership benefits. Non-

members will be able to meet ITA staff to learn all about what the Association can do for them.

They can also collect details of the ITA benefits including reduced delegate fees for ITA conferences, free promotional opportunities in the ITAN newsletter, and free visitor entry and hospitality at selected exhibitions.

Members can also gain access to copies of ITA technical conference papers, and large discounts for company promotion on www.tubefirst.com (the comprehensive online material, product and equipment database).

In addition, all members receive a free annual subscription to either of the officially endorsed magazines, *Tube & Pipe Technology* or *Tube Products International*.

The ITA will be located in hall W4 with an information stand providing its standard support facilities like office facilities, hospitality, meeting area and additional interpreter services for members and companies in the ITA's exhibitor group. Members who are just visiting the exhibition will also be entitled to make full use of all these services.



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<p>STAINLESS STEEL EDEL STAHL ACIER INOXYDABLE</p>		



During the exhibition, Mr Ding of CCRSA, the ITA's representative in China, will be arranging a gathering of Chinese ITA members together with senior board members of the Association and important figures from the Chinese metal industry and related organisations.

Website: www.itatube.org



Jang Wuel Steel Machinery Co Ltd is a manufacturer of a range of tube mills and other machinery. The company has recently introduced a newly developed quick-change system for tube mills.

Using the new quick-change system, the company claims there is no need to dismantle the universal joints, as it is designed to use a hydraulic unit and link device to allow the universal joints to depart from the forming stands.



Jang Wuel will exhibit its faster quick change system for tube mills

The operator is only required to use the hoist hanging the forming stand above the machine bed, then exchange a new size of forming stand, and reverse operate to connect the universal joints and forming stands.

When connecting the universal joints and forming stands, the height adjustment of the roller is operated by air cylinder and not by hand. It begins running soon after the roller size exchange, with no need for step-by-step adjustment.

The quick-change system is designed for time saving in roller changing operations, with an upgrade in quality and reduction of power consumption.

Website: www.jangwuel.com



Jiangsu Guoqiang Ind Co Ltd offers a main product range consisting of ERW pipe, GI pipe, guard rail and HR coil. The company has an annual capacity of 600,000t zinc-plated products and a large output of rolling steel strips.

With its products supplied to both the domestic and international markets, Jiangsu Guoqiang operates a 1,300m² production area, with more than 2,000 employees.

Website: www.jsgq.cn



Zhejiang Jiuli Stainless Steel Pipe Co Ltd is a leading Chinese manufacturer of stainless steel tube and pipe. Founded in 1987, the company has a product range including seamless tube from 6-273mm OD, and welded from 9.53mm to 2,540mm OD.

The quality management system at Jiuli is approved according to ISO 9001 by IQNet and CQM. In addition, the company has the work approval of GL, DNV, BV, ABS, CCS, and holds PED and AD-W0 certificates from TUV. Jiuli is currently applying for ISO-14000 and LR qualification, which all equates to high product quality.

The company's tube and pipe products have been supplied to an increasing number

Jiuli manufactures seamless tube from 6-273mm OD and welded from 9.53mm to 2,540mm OD



of international projects for worldwide companies, such as BP, Exxonmobil, and Aker Kvaerner. In the past two years the company has also been endorsed by renowned boiler manufacturers and currently supplies boiler tubing to them on a regular basis.

Website: www.jiuli.com



Kusakabe is a manufacturer and supplier of tube and pipe mills and associated equipment. The company's products are in operation in over 23 countries.

The company's range includes rotary sizing mills, Klearcut milling type flying cutoff machines, universal pipe forming mills (with cassette type sizing), and QHQ (quick change high quality) tube mills.



Kusakabe will exhibit from its range of tube and pipe mills and associated equipment

The Kusakabe rotary sizing mill involves technology that replaces the conventional sizing method. It is in use at innovative tube and pipe manufacturers to reduce cost and improve product quality in both precision and surface finish. A rotary sizing mill is ideally suited to TIG, laser and precision mills as well as large pipe mills. Offline applications of this technology also exist.

Kusakabe's knowledge and experience has been developed over the past 45 years. It enables the company to provide world class and innovative pipe manufacturing equipment and technologies from the strip entry to the packing machine and everything in-between.

Kusakabe continually develops new ideas and concepts to address the challenges faced by the tube and pipe manufacturer.

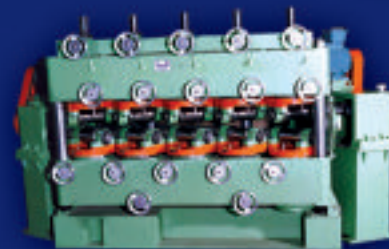
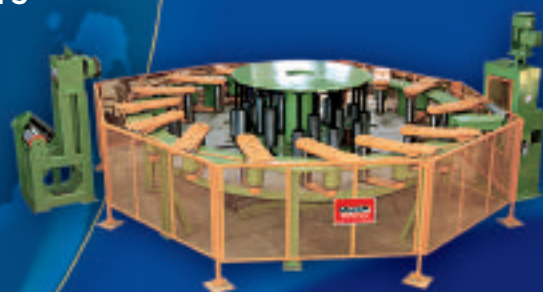
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Linsinger GmbH
Austria

Linsinger manufactures sawing and milling machines for the tube and pipe industry. For large pipes, the company produces plate edge milling machines for welding edge preparation, and pipe bevelling machines for pipe end bevelling on both ends simultaneously (up to tube Ø 60").

Linsinger products for ERW lines include strip edge milling machines for longitudinal seam tubes (HF-lines up to 24") and multi-cut tube cut-off machines for longitudinal edge tube lines (up to tube Ø 600mm).



Linsinger's KSA 1600 carbide circular saw

The company also produces strip edge milling machines for spiral steel tube lines (coil up to 2,000mm width, 1" sheet thickness). In addition, the company supplies carbide circular sawing lines for steel billets (up to Ø 630mm), single tubes (up to Ø 630mm), multiple tube layers (up to 1,250mm width) and seamless pipes. Also available are carbide circular sawing lines for steel billets (up to Ø 630mm) for forging mills.

Linsinger produces the necessary carbide saw blades and miller only for Linsinger machines. In Europe, the company also offers a full re-sharpening and repair service.

Website: www.linsinger.com



Maxvalue Industries Co
China

Maxvalue Industries specialises in the manufacture and export of fittings, flanges, valves and other pipeline products in China.



A selection of Maxvalue products

The company is BVQI ISO 9001 certified, and its products have gained TV PED certificates.

Website: www.maxvalue.net



Olimpia 80 Srl
Italy

Olimpia 80 Engineering designs and constructs complete mills for the production of welded tubes. The company is able to offer both individual pieces of equipment and complete lines, suitable for any TIG, laser and HF welding, and for materials such as stainless steel, carbon steel, titanium, copper and other non-ferrous materials.

The company can also provide a wide range of equipment for strip handling, tube cutting, inline bright annealing, and inline or offline tube finishing. One of the company's latest developments is a satin and mirror polishing machine for round, square or rectangular tubes.

Olimpia 80 can also supply turnkey systems, and provide complete after-sales technical services and personnel training.

Website: www.olimpia80.com



Oto Mills
Italy

Oto Mills is involved in the design and construction of machines that produce top quality tube at very high production rates. The company has more than 20 years' experience in the design, manufacture, and installation of tube mills. With a full catalogue of solutions for carbon and stainless steel applications, the tube mill products range is from 10-220mm.



Oto Mills is a complete supplier of tube mills

The Oto Mills capability includes complete systems for the production of welded tube and/or profiles, turnkey production plants, revamping of existing systems, training of mill personnel, after-sales service, and electronic/automation technology.

Among the company's most recent innovations is a line of high precision tube mills designed to meet the rigorous specifications of quality automotive tubing applications.

Website: www.otomills.com



MRB Schumag Ltd
UK

Part of the Schumag Group, MRB Schumag is a global leader in the design and supply of premium equipment to high-volume copper tube producers. With over 50 years of experience, the company has a substantial reference list of blue chip customers, working in partnership with these customers to layout and develop technologically advanced and cost-effective tube mills.

China has long been a very successful market for MRB Schumag, and the company will again exhibit at Tube China, as it has done since the inaugural show. The main focus of MRB Schumag's exhibition will be on its latest inner grooving line technology. As global demand for inner grooved commercial/ACR tube increases, users require high-speed grooving that can be flexibly incorporated into the production process.

Whether developing completely new tube mills, or just incorporating more inner grooved tube into a product mix, MRB Schumag can offer a range of innovative solutions. This technology ensures modular flexibility with customisation of a line to suit all plant arrangements.

MRB Schumag's renowned spinner blocks can be used to produce high quality thin tubes upstream. Baskets are readily



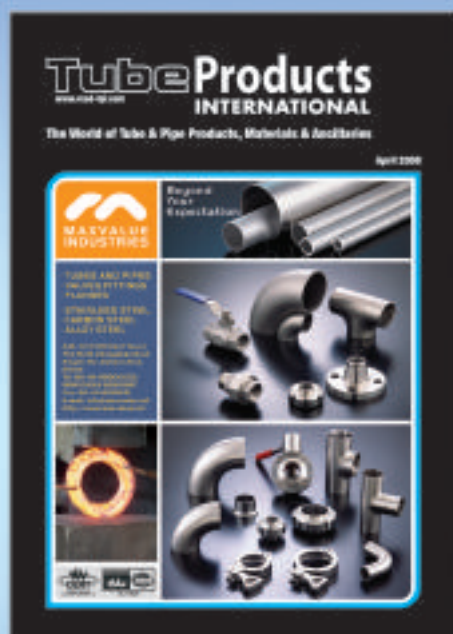
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linkable with basket handling systems and move to and from the inner grooving lines. They provide an easily integrated solution to embrace a changing tube market.

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Shanghai Want Industry Co Ltd (WTPF) is a private-owned company and export-oriented manufacturer of stainless steel tube, pipe and fittings. With highly skilled staff, the company supplies to markets including oil and gas, power plant, chemical industry, petrochemicals, food and pharmaceuticals, shipbuilding, pumps, paper making and other engineering construction fields.

The Shanghai Want range consists of high-quality stainless steel butt-weld pipefitting and seamless stainless steel pipe and

tube. The company's production capacity is approximately 300t of fittings and 400t of tube and pipe per month.

Website: www.asiapipefitting.com



Sikora AG, Germany, is an expert in the field of measurement, control and test equipment. The company manufactures the Laser 2000 series of measurement and control equipment for all kinds of tube and hose.

The smallest gauge head in the range, the Laser 2010 XY, offers XY-diameter measurement for product diameters from 0.1mm to 10mm. Progressive CCD-technique, in combination with impulse-driven laser diodes and powerful processors, allow short exposure times of 0.2µsec, providing precise, non-contact measurement.

Product vibrations have no influence on the measurement, and the gauge head does not include any optical elements. The small,



Sikora's Laser 2010 T, Laser 2025 T and Laser 2050 T triple-axis gauge heads

powerful gauge head is suitable for use at virtually any point on the production line.

The Laser 2000 series features highly durable laser diodes, and avoids maintenance due to a measurement principle requiring no moving parts. The mean time between failures – the average time after which a device shows a repairable defect – is claimed to be 15 years.

Several of the laser systems (Laser 2030 XY to Laser 2300 XY) feature a swivelling gauge head that can fold upwards from the working area, protecting the gauge head from dirt and water drops falling into the measuring area.

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For the online-acquisition of tube and hose profiles, the Laser 2000 Profil defines distinctive positions of a profile in the measuring field, from the functional equations of tangential laser diodes. This device is suitable for the measurement of round or oval profiles, even if the profiles are arranged in an inclined position. The design of the gauge head is downwards/open, providing protection against dirt or water.

Interfaces such as RS 485, Profibus DP, Canbus, ethernet or analogue interfaces are integrated into the gauge head, for use in extrusion lines that are controlled by a production line processor. All gauge heads of the Laser 2000 series have an RS 232-C interface for a PC or notebook connection.

For extrusion lines without production line processors, Sikora produces processor controlled display and controlling systems, including Ecocontrol 1000/2000 and Remote 2000. The Ecocontrol 1000/2000 indicates, apart from the numerical and graphical presentation of the measured values, an automatic control of the diameter or wall thickness of the product. It collects precise statistics and trend values, saves data and records the measured values.

The Remote 2000 is a processor-based system suitable for panel mounting or for installation on the gauge head support.

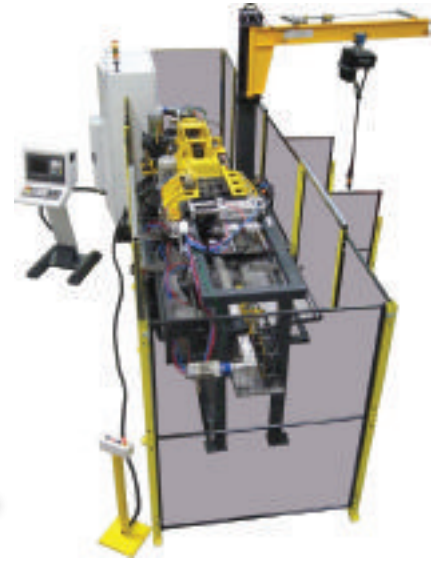
Sikora also produces x-ray based measurement devices, for products with up to three layers. Diameter, wall thickness, eccentricity and ovality can be logged and recorded. The system quickly and precisely controls the expulsion of the extruders or the velocity of the production line.

Website: www.sikora.com



Founded in 1990, Silfax specialises in fully electric, large diameter tube benders, hydroforming machines and end-forming machines. The company is a major supplier to the automotive industry, aerospace companies, and the air conditioning and ventilation sector.

The company has launched a new hydroforming machine, branded SHD4N,



The SHD4N hydroforming machine is used for thin wall tube convolutes

for thin wall tube convolutes (EGR tubes). The main features of the SHD4N include 4 electrical numerical axes, an integrated loading and unloading system, memorised tools adjustment (with reduced changeover time), Siemens 840D numerical control and 611D drivers (full digital technology). Using the machine, it is possible to undertake

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hydroforming of different convolutes in one go. The machine offers a high production rate (up to 95 per cent), together with auto diagnosis and easy integration of cells.

Silfax has also developed the S316, a new compact electric CNC tube-bending machine. This 3-axes machine can be used on tube with a diameter range of 4-16mm steel (th 2) and 20mm aluminium (th 2).

This latest generation machine provides advantages including high productivity, precision and repeatability of the axes, reduced maintenance, remote maintenance service, and multi-height work.

⚙️ Silfax has launched the SFE R/L, a new electrical end-forming machine



The company has also recently released a new electrical end-forming machine, branded the SFE R/L (rotative/linear modes), which is available in 5t, 8t and 12t power models. The SFE R/L has features including numerical reference setting of tube, 2 to 8 steps, up to 50mm diameter, up to 3 rolling heads, and precision and repeatability.

Website: www.silfax.com



Sino International Business Co Ltd is a manufacturer of steel and iron tube products. The company is an advanced partner for steel mills, manufacturers, traders and purchasers, and offers an international trade service to assist in all areas of business.

The company's range includes large hollow sections, hot dipped galvanized pipe, pre-galvanized pipe, mild steel channels,

H-beams, steel sheet and plate, and stainless steel pipe. Sino also provides steel angle, scaffolding pipe and parts, API pipe, OCTG pipe, seamless steel pipe, and pipe fittings/flanges.

Website: www.sinointlbiz.com



Sitindustrie is a main supplier of stainless steel and copper alloy tube, pipe, fittings and complete packages, serving industries including oil and gas, food and dairy, and marine/thermal seawater desalination.

At the start of 2006, the company established Sitindustrie Tubes & Pipes (Foshan) in China – a new manufacturing plant to better serve the Chinese and Far Eastern markets.

In particular, the company has developed a deep technical knowledge of bright annealed copper alloy tubes with a thin, ↩️



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ⓘ Sitindustrie will exhibit its range of stainless steel and copper alloy tubes



SMS Meer GmbH
Germany

SMS Demag AG is a world leader in the construction of plants for the steel, aluminium and copper industries. The company offers a complete process chain extending from crude iron production right through steelmaking, continuous casting, rolling mill and tubemaking technologies, up to processing and finishing lines for hot and cold strip.

Within the structure of SMS Demag AG, SMS Meer was established from the former 'Tube and Copper Plants' business unit of Mannesmann Demag Metallurgy. In 2001, the 'Long Product Rolling Mills Division' was integrated into SMS Meer. As part of a reorganisation in 2003, SMS Meer became part of the 'Tube, Long Product and Forging Technology' business area of the SMS Group.

The product range of SMS Meer essentially consists of: manufacturing plants and automated finishing systems for seamless and welded steel tubes (diameters from 4mm to 1,800mm), hydraulic presses such as open-die forging presses and powder presses, and casting and rolling plants for sections, wire rod and bar steel.

This is in addition to casting and rolling plants for extrusion billets, strips, wire rod, anodes and tubes made from non-ferrous and precious metals, plants for the production and further processing of aluminium billets and slabs as well as plants for the recycling of aluminium.

Website: www.sms-meer.com



TMK
Russia

TMK is a leading Russian producer of pipes used in the oil drilling sector, the chemical and petroleum industry, energy and construction companies, machine-building factories and auto manufacturers.

The company is an umbrella organisation for the four largest pipe manufacturers in Russia: the Volzhsky Pipe Factory, the Seversky Pipe Company, the Sinarsky Pipe Factory and the Taganirotsky Metallurgical

Factory. In addition, TMK operates two companies in Romania – the Artrrom Pipe Factory and the Resita Metallurgical Factory.

TMK is an integrated holding company that also includes a trading house for Russian and CIS sales, TMK Global AG for international exports, and the TMK-Transportation company. TMK's head office is in Moscow with affiliate offices, including those of the trading house, located in Switzerland, USA, Azerbaijan, China, Kazakhstan and Germany.



ⓘ TMK's annual production capacity is 3.7 million tons of pipe

The company's yearly production capacity is circa 3.7 million tons of pipe. Their products meet international standards including API, ASTM and EN/DIN, with quality control systems approved by ISO 9001 and API Spec Q1 standards.

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

TMK Global – Switzerland
Fax: +41 43 888 73 01



Tube & Pipe Technology
UK

Tube & Pipe Technology is the international trade magazine for the tube and pipe industries, published six times a year in the English language. Covering the production, processing and utilisation of tube and pipe, each issue provides coverage of essential industry news, personnel changes and technology and product updates.

The magazine includes regular topical columns such as 'From the Americas' – an economic and industry report on North and South America, a variety of technical features, and in-depth articles highlighting the latest scientific information and manufacturing solutions.

↶ uniform and dull iridescent film on the inside and outside surface as prescribed by ASTM standards.

Such film protects the tubes, thus assuring a long life for products such as heat exchangers.

Sitindustrie can also supply a wide range of mechanical components (cast steel products, industrial valves and gearboxes), and stainless steel structures for the construction industry.

Website: www.sitindustrie.com



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Standard: ASTM A269/ASME A213 ASME SA213 DIN 17456 JS G3459 G3463

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↩ The magazine has a worldwide circulation of over 12,000, distributed to managers, buyers, technologists, engineers and specifiers in over 100 countries. Working in partnership with the International Tube Association (ITA), *Tube & Pipe Technology* is sent out to all ITA members.

Tube & Pipe Technology is now also available as an online e-zine, which will reach even more worldwide 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.

Visitors to Tube China 2008 can pick up a free copy of the latest edition at the *Tube & Pipe Technology* stand, together with information on subscription, advertising and the new e-zine. Information will also be available on *Tube Products International*, the new magazine for the world of tube and pipe products and materials, read by producers, buyers and end-users.

Website: www.read-tpt.com



Tube Products International magazine is published for tube and pipe product end-users, buyers and specifiers of metal, plastic and composite tube and pipe materials, products and fittings.

Published every quarter, Tube Products International has an international circulation of 5,000 readers who are registered buyers, stockists, agents, specifiers, distributors and users of all kinds of tube, pipe and hollow products, materials and accessories.

TPI reports the latest corporate and economic industry information, and features

new technological advances in materials and tube and pipe products and ancillaries available within the tube and pipe industry around the world.

The regular quarterly worldwide circulation of Tube Products International is further increased by bonus distribution of free copies at all the leading international tube and pipe trade fairs around the globe.

With every issue, new readers and buyers subscribing to the magazine ensure that the magazine is a compulsory publication for marketing campaigns and advertising schedules of both tube and pipe producers and suppliers of tube and pipe materials.

Website: www.read-tpi.com



Tuboscope, a leading worldwide manufacturer of high speed, non-destructive testing equipment, offers welded tube and pipe manufacturers and processors several

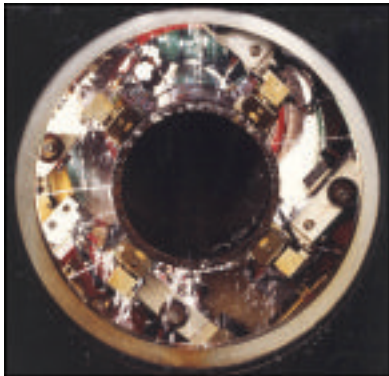
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solutions for weld seam inspection. Designed for inline and offline applications, Tuboscope's WeldSonic C, Truscope® and ERW Amalog systems provide flexibility for the customer to select the right technique to meet relevant specifications.

Designed to be installed inline after the welder, or offline after heat treatment and hydro-testing, the WeldSonic C enables multi-channel ultrasonic (UT) inspection of the weld seam and HAZ (heat-affected zone). For complete full-body ultrasonic inspection applications, the Truscope system provides fast and accurate flaw detection and wall thickness measurement for both statistical control and conformance to industry specifications.



Truscope provides complete full-body ultrasonic inspection

The company also offers the ERW Amalog system for full-body electromagnetic induction (EMI) inspection, with longitudinal defect detection of both the weld seam and the pipe or tube body.

All three systems, the WeldSonic C, Truscope and ERW Amalog, incorporate Tuboscope's latest developments in digital signal processing, graphical presentation and connectivity to the user's host computer system

Website: www.varco.com



US Steel Košice sro, a subsidiary of USS Corporation, is one of the largest producers of flat rolled products in central Europe with an annual production capability of 4.7 million tons. The company produces a wide assortment of hot rolled, cold rolled and coated sheets designated for different industries.

In addition to flat rolled products, the company also produces spiral-welded pipes on its advanced pipe mill. The pipes are made from the company's structural and micro-alloyed hot rolled sheets.

US Steel Košice manufactures spiral-welded pipes from 406mm to 1,420mm



The dimensional range varies in diameters from 406mm to 1,420mm, wall thickness from 5mm to 14.2mm and length from 8 to 18m.

The company has been producing spiral-welded pipes since 1960. In the past, the pipes have been used for the



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WALL THICKNESS AREA : 2MM TO 100MM

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 WP8, 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
DIN : ST37.0, ST35.8, ST45.8, S235JR, P235GH, P265GH, 10CRMO910, 15CRMO, 12CR1MOV
JIS : JIS G3454 STPG370 STPG410



RDY PIPE FITTINGS

SHUEAZHUANG RUIDATONG PIPE FITTING CO., LTD
Corporate Office: No.104,Yuhua West Road,Shahejiakouang City,Hebei Province,050081, P.R. China
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FAX: +86-311-83590127
E-mail: sales@ruidatong.com Web: www.ruidatong.com



construction of major projects including the world's largest oil pipeline 'Druzha' and gas pipeline 'Bratstvo'. Since then over 23,800km (14,800 miles) of pipes have been produced, which represents 3.352 million tons supplied to almost all European countries and former Soviet Union countries.

At present, the company takes advantage of its strategic location in the heart of the continent for exporting its products to many European countries and beyond. The pipe mill produces approximately 90 thousand tons per year. The pipes are used mainly for gas distribution lines, crude oil and water distribution lines (for district heating and cooling systems), and for civil engineering and structural purposes.

All pipes are produced in conformity with internationally recognised standards API, EN and DIN. The entire production process is continuously monitored; the pipe surface and welds are consistently controlled by a series of non-destructive tests, while all results are archived. A significant role in the development of new steel grades and technological processes is played by the company's Institute of Research and Development.

Website: www.usske.kk

voestalpine Tubulars Germany

voestalpine Tubulars is a joint venture between the successful Austrian voestalpine group in steel production and the US Grant Prideco Group, one of the world's largest manufacturers and suppliers of oilfield drill pipe and other drill stem products.

voestalpine Tubulars produces seamless steel pipes with an outside diameter up to 177.8mm (7"). The products can be manufactured in API or special grades, with special/premium threads upon request. The end users are the oil and gas industry, boiler and equipment fabricators, tunnel construction companies and the automotive industry.

Grant Prideco has recently been acquired by National Oilwell Varco (NOV), a worldwide leader in the design, manufacture and sale of comprehensive systems and components used in oil and gas drilling and production. NOV is involved in the provision of oilfield tubular inspection, internal tubular

coatings and other services, as well as in providing supply chain integration services to the upstream oil and gas industry.

The voestalpine Tubulars alliance with Grant Prideco/NOV provides its global customers with a broad range of products and services.



voestalpine Tubulars provides seamless steel pipes with an outside diameter up to 177.8mm

With offices in Houston, Dubai and Moscow, the company's international sales network provides the essential proximity to customers and guarantees comprehensive support and assistance.

The company is certified according to ISO 9001, 14001 (EMAS location) and API respectively. voestalpine Tubulars is an approved vendor for most international oil and gas companies.

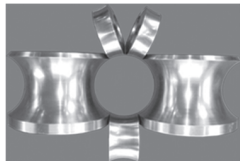
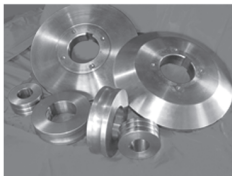
Website: www.vatubulars.com

SiFang China

Shandong Province SiFang Technical Development Co., Ltd

The Popularization Center of High Chromium Alloy Roll of Productive Force Promotion Center of National Metallurgical Industry

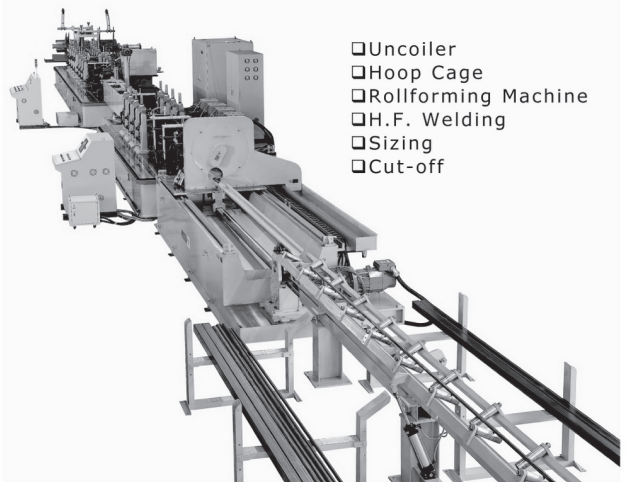
High chromium alloy straightening rolls are widely used in cold and hot straightening towards seamless pipes, welded pipes, H-steel and other section steels. Applications in large-scale metallurgical enterprises in China, as Tianjin Pipe (Group) Corporation, Shanghai Baosteel Group, Laigang Group and Shougang Group, have proved that the technical level and service life of high chromium alloy roll has reached advanced world level. Being used in cold roll forming steel and welded pipe machines like 24" ERW butt welded pipes and 500mm rectangular pipes, high chromium alloy roll have been proved with its technical level and service life reaches that of products such as D2 and H13 of America, X155CrVMo121 of Germany, SKD11 and SKD61 of Japan. High chromium rolls have been supplied to many of our overseas customers and got good feedback.



Address: University Science & Technology Park of Jinan High-Technology Industrial Development Zone No. 750 of XinYu Road, Jinan, Shandong Province, P. R. China.
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Weifang Shengjiang
China

Weifang Shengjiang Economic & Trade Co Ltd, located in the Weifang City Shandong Province, was founded in 2003. The company mainly supplies pipe, fittings, flanges and valves, and other oil and gas fittings.

Materials used include carbon steel, alloy steel and stainless steel according to ISO, ANSI, JIS and DIN standards, based on specific requirements. The company's products are directly supplied to Europe, America, southeast Asia, and the Middle East.


Website: www.shengjiangcn.com



Yee Young Industrial Co
Taiwan

Yee Young is an ISO 9001:2000 approved company with over 20 years of experience as a tube and rod manufacturer. The company offers all kinds of hydraulic/pneumatic cylinder honed tubes, chromium plated piston rod, linear motion shift and all types of fluid power transmission products.



 Yee Young manufactures hydraulic/pneumatic cylinder honed tubes and chromium plated piston rod

The company offers the guarantee that its steel tube, pipe and rod is manufactured and delivered according to the highest quality standards.

Website: www.fluid-power.com.tw



Yu-nion Machinery Co
Taiwan

Yu-Nion Machinery Co Ltd is a tube and pipe machinery manufacturer with over 27 years of experience. The company's machinery and equipment is designed for the tube and pipe industry and steel processing industries.

The Yu-Nion range includes tube mills for ERW carbon steel/stainless steel pipe,

slitting lines, cut-to-length, hot rolling mills, and forming machines. The company can also provide finishing lines and complete plant equipment.

Yu-Nion has recently secured a contract to supply a carbon pipe-making machine with PVC/PC coating. This production line will be used for household cleaning products, such as broom handles. The handles are made of carbon steel or stainless steel and can be covered with PVC or PE coating.

Website: www.yunionm.com.tw

TUBE STRAIGHTENING AND CUTTING MACHINES

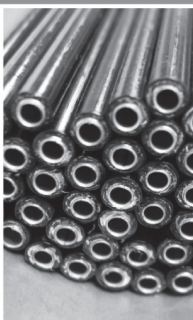
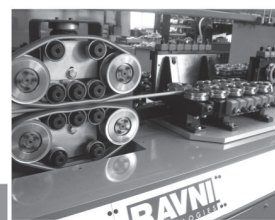
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Zhejiang Jiaxing Zhongda
China

ASTM A213, ASME SA213, ASTM A789,
ASME SA789, JIS G3463, and EN10216

Website: www.zhongdasteel.com

Zhejiang Jiaxing Zhongda Group is a specialist in producing stainless steel seamless tube, duplex stainless steel seamless tube and super duplex stainless steel seamless tube. These products can be utilized for heat exchanger, boiler, air cooler and other pressure vessels.

The tube is manufactured from steel grades including TP304, TP304L, TP304H, TP310S, TP316, TP316L, TP317L, TP321, TP321H, TP347, TP347H, TP347HFG, UNS S31803, UNS S32205, and UNS S32750. Current specifications include



Zhuhai Gulf Co Ltd
China

Zhuhai Gulf Heavy Industry Steel Pipe Co Ltd is a steel pipe manufacturer, backed up by Ningbo Gulf Heavy Industry Co Ltd. The company is specialised in the production, processing and sale of pipe, with a main product of spiral submerged arc welded steel pipe.

⬇ Zhuhai Gulf manufactures spiral submerged arc welded steel pipe



⬆ With a range from 400-3,050mm, the pipe has been used on a number of marine and bridge projects

In cooperation with Ningbo Gulf Heavy Industry Co Ltd and Ningbo Sanding Steel Pipe Engineering Co Ltd, the company has successfully completed several major supply projects for steel pipe piles. Successful projects include the Hangzhou Bay Bridge and Jin Tang Bridge (marine pipe piles), Koolan Island project (steel pipe piles), FMG rail and PKPC Pier (Australia).

Located in Gaolan Port Economic Zone, Jinwan area of Zhuhai City, the company has a manufacturing facility of about 10,000m². The Zhuhai pipe diameter range is 400mm to 3,050mm, with wall thickness from 5-25.4mm and pipe length up to 100m.

Website: www.ghpipe.com

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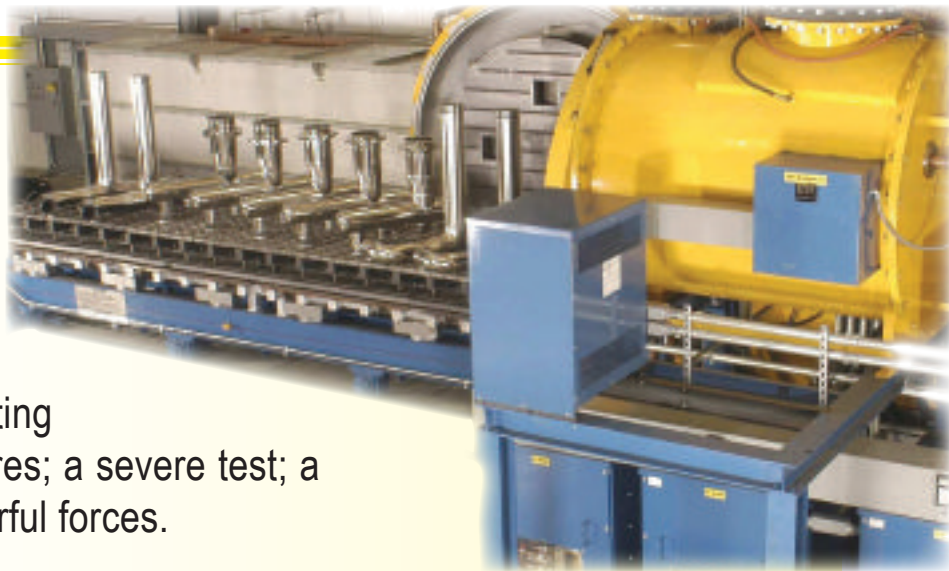
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Tube & Pipe Technology – More News, More Features, More Readers

Heat & Surface Treatments

An annealing furnace in which tube and pipe is strengthened and hardened is the very model of a crucible, in every one of its definitions: a vessel, itself heatproof, for melting materials at high temperatures; a severe test; a place of confluence of powerful forces.



It is also a remarkably flexible industrial apparatus, adapting without difficulty to roller hearth or mesh belt designs; electric or gas-fired operation; ferrous or nonferrous applications; full anneal, clean anneal, spheroidize anneal, or stress relieving heating cycles. Using this equipment, it is also possible to apply coatings and undertake galvanizing operations.

A modern roller hearth continuous furnace must heat quickly and uniformly, regardless of the size of the tubing being processed or the length of the run. It must accept wall thickness from several thousandths of an inch, on up – and adjust readily to a variety of production rates.

Operation will be by means of a total system for monitoring, controlling, recording, and storing such parameters as temperature, tube wall gauge, conveyor speed, loading, and atmospheric conditions, and a great deal more. The unit will feature PC/PLC integration, and instant recall and downloading of data to a centralized computer system. All of this will be immediately responsive to fingertip control by the operator.

Does this sound like over-engineering, for a furnace? No one has ever said so. It takes a tough piece of equipment to impart the heat treatment necessary if a length of tube or pipe is to stand up to the rigours of a long and trouble-free life in service, perhaps in severe conditions.

What it takes, in fact, is a crucible.



Fully integrated ACR copper tube annealer

Inductoheat, Australia, a division of Inductotherm Pty Ltd, has developed a fully integrated ACR copper tube annealing system. The complete system is controlled by a PLC with HMI interface and operator control consoles located at both the pay-off and receiving stations.

According to the company, its ACR copper tube annealer excels in quality and consistency of the end product. Continuous high speed induction annealing requires the power input to be constantly and instantaneously varied depending on the line speed of the system.

Utilizing a proprietary algorithm, which has been developed by Inductoheat over many years, speed curve calculations are performed 50 times every second. This information is relayed by the PLC to the inverter, thus ensuring repeatable high quality end product.

Complex electrical control systems must be user friendly. The Inductoheat system allows the operator to configure the initial production setup for up to 50 different product profiles. Product data such as tube diameter and wall thickness are entered onto the HMI screen along with the expected current required. Changing from

one product size to another is as simple as pressing a button. Other features provided include system status and fault finding.

Induction heating is claimed to be the most environmentally friendly and energy efficient means of annealing non-ferrous tube. When comparing fossil fuel fired batch type annealing furnaces with induction systems, induction systems provide a range of advantages.

These include zero energy usage during stop in production, lower energy consumption when in production, less labour usage, high degree of automation, a smaller amount of factory floor space, and lower usage of protective gases.

The Inductoheat ACR copper tube annealing system offers a range of features. Complete systems can be supplied with full line mechanics, while mechanical systems are designed for ease of operation and maintenance.

A central electrical control system ensures power input is continually varied to suit the corresponding line speed. The electrical control system features a HMI interface for ease of operation and allows programming of a multitude of tube sizes.

Solid-state inverters operate in both medium and high frequencies, while power supplies are water cooled by means of a closed loop recirculating system. The inductor coil line designed to anneal copper tube under a reducing atmosphere to produce a bright-annealed finish both inside and outside.

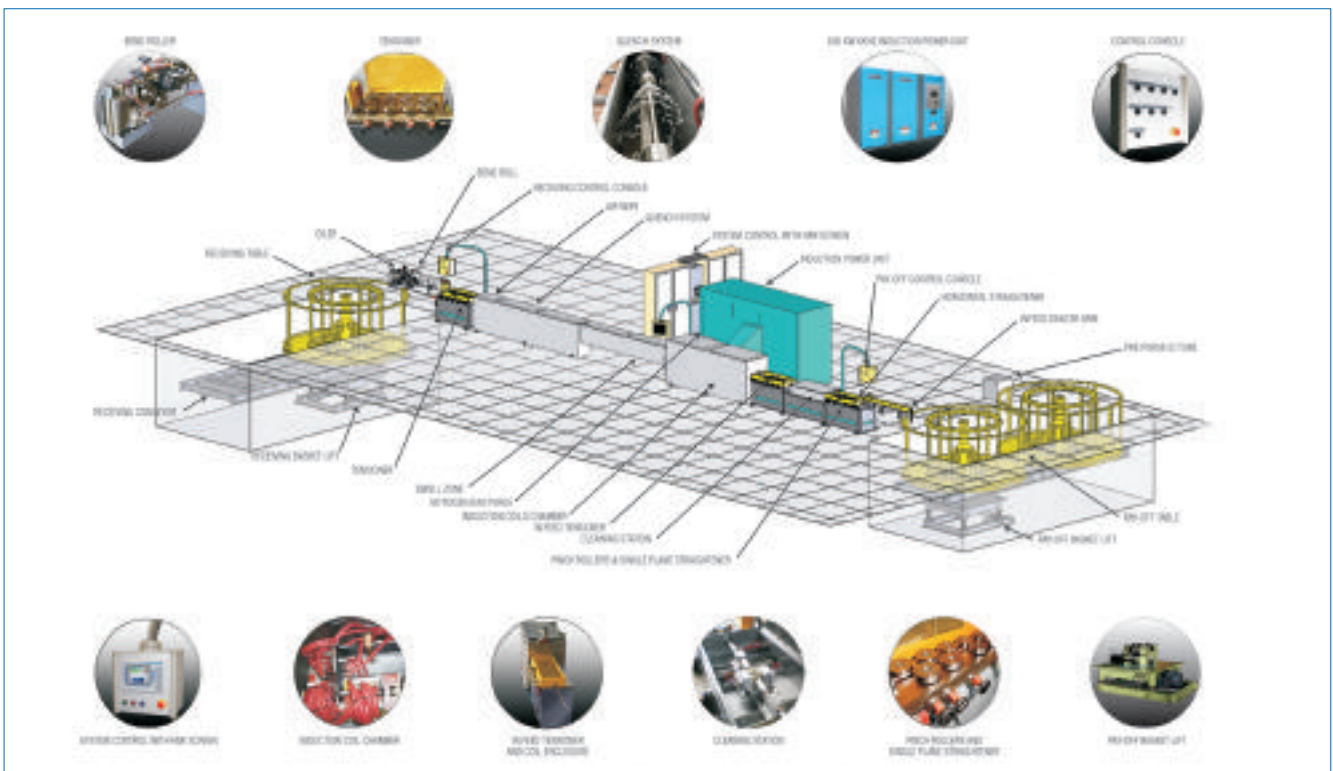
The dwell and quench zones are designed to ensure the copper tube is first held at the correct temperature to obtain full grain uniformity, before being rapidly cooled at full line speed for maximum productivity. Using the system, it is possible to anneal at high line speeds of up to 600m per minute with minimal operator interface.

Inductoheat has installed copper tube annealing systems throughout the world including the USA, China, southeast Asia, and South America.

As part of the Inductotherm Group, which comprises of over 40 strategically located companies, Inductoheat can offer the support of a global network of manufacturing and servicing facilities.

Inductoheat (a division of Inductotherm Pty Ltd) – Australia
Fax: +61 3 9786 8522
Email: andrew.kep@inductotherm.com.au
Website: www.inductoheat.com.au

 The fully integrated ACR copper tube annealing system from Inductoheat



Acid pickling tank offers extreme corrosion resistance


Arvind Anticor Limited, India, is a manufacturer and exporter of acid pickling tanks made from extremely corrosion resistant polypropylene thermoplastic. The company's acid pickling tanks are custom designed according to size and weight of load such as tube, pipe, wire coils, bars, rods and structural steel.

Anticor PP tanks are used for pickling, degreasing, electro-plating, rinsing, fluxing, anodising, passivation, pre- and post-treatment and metal surface treatment. The tank is constructed from polypropylene thermoplastic – a material that is highly corrosion resistant. In addition, the tank is housed in a steel structure frame for mechanical reinforcement, covered with fibreglass.

The tanks are designed and engineered on the 'Rita' tank building software module. All areas of design, calculation, costing and calculating PP tanks are geared towards maximising the benefits of advanced material over

conventional alternatives such as brick lining and fibreglass lining. Benefits include cost saving, impact resistance, corrosion resistance, mobility, minimal weight, leak-proofing, environmental efficiency, fume free, increased longevity and zero maintenance.

Anticor tanks are designed, manufactured and tested according to German Welding Association DVS 2205 for safety and longevity. The tanks are manufactured with certified life of chemical resistance. Anticor's facilities are equipped with butt

 A PP tank with steel support, fume exhaust slot and integral ducting



fusion welding, hot gas extrusion welding technology and hydro-thermo radius forming technology.

In addition to butt fusion technology, Anticor has developed radius instead of a right angle corner at the bottom of tank. This effectively reduces the weld joint at the welded corner radius, thus providing sound mechanical strength. Anticor weld joints are tested as per German Welding Association DVS 2203.


The company's tank fabrication technology offers better performance, higher efficiency, higher productivity, lower rejection, zero failure and an environmentally friendly atmosphere. Welding quality is confirmed by a 3-point bend test, and a specimen seam is subjected to a test of tensile and impact resistance properties. Leak testing is carried out prior to dispatch by hydro, vacuum and spark test.

Anticor pickling tanks are supplied with accessories such as nozzles, heating/cooling coils, integral suction ducting for fume exhaust, integral slope for drain, lifting arrangement, and top lid cover.

Arvind Anticor Limited – India
Fax: +91 79 25891941
Email: info@picklingplant.com
Website: www.picklingplant.com

Roll blasting machine for removal of tenacious coatings

Wheelabrator Group, Canada, recently installed a new, unique two-wheel skew roll blasting machine at Duraloy which is essential in removing the chalky, tenacious, refractory coating from the tubes produced during the centrifugal casting process.

 The two-wheel skew roll blasting machine from Wheelabrator



This unique blasting process is followed by a Zyglon inspection that ensures that the chalky, refractory residue is completely removed, so that the tubes can be checked for defects that could be formed during the casting process.

Duraloy Technologies Inc is a manufacturer of centrifugal and static cast components and assemblies for various industries, including steel mill and steel processing, petrochemical, fertilizer, refining and chemical heat-treatment. Utilizing ISO 9001:2000 and European PED registered quality assurance systems, Duraloy remains a technology leader in engineering and design.

The Wheelabrator® machine accommodates a variety of casting sizes, from 3" to 20" in diameter. Since the installation of the new Wheelabrator machine, Duraloy has decreased cycle times, saved money and eliminated the production bottlenecks associated with the former blaster.

Over the planning stages a number of unforeseen problems occurred, which Wheelabrator and Duraloy worked together to resolve. The problems were identified and a new machine designed which was quickly and efficiently produced in a very short time. Making this design even tougher, Wheelabrator worked within the limited space requirements and designed the skew roll blasting machine to fit in with the existing manufacturing facility.

"We've been extremely pleased with the new skew roll machine. It's two wheels cut our run time in half and added much needed flexibility," said Mr Paul Rokosz, Duraloy vice-president and general manager.

Wheelabrator Group, a global provider of surface preparation and finishing solutions, celebrates its 100th anniversary in 2008. The company is committed to offering the broadest array of technologies, products, services and technical know-how.

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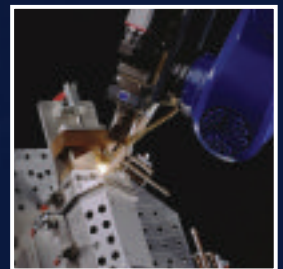
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UV-curable corrosion resistant coatings for tube and pipe

DSM Desotech, a UV-curable coatings company, has introduced a new line of UV-curable corrosion resistant coatings for metal tube and pipe. Developed by Desotech's dedicated UVention™ group, the UVaCorr™ product line includes both clear and coloured coatings. The UVaCorr™ coatings were launched at Tube 2008 in Düsseldorf, Germany.

The company claims this new range has a number of performance advantages over

traditional solvent-based tube and pipe coatings. These include instant cure for high-speed processing, 100 per cent solid coatings for higher applied coverage and no VOCs, and better salt spray resistance for enhanced performance. In addition, the coatings require a smaller equipment footprint with reduced energy requirements.

"The tube and pipe industry is a fast-growing market for both clear and colour UV coatings," commented UVention market platform manager Dr Anthony Toussaint. *"Not only do these coatings provide greater productivity gains for manufacturers, but they offer a greener solution for the*

corrosion protection of tube and pipe products."

DSM Desotech develops high-performance UV-curable materials, and also supplies the telecommunications industry with UV-curable coatings.

In 2007, the company launched the UVention™ group, dedicated to applying Desotech's 40+ years of experience in UV-curable materials development to industries where highly specialised UV coatings are needed for challenging substrates.

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High volume T-6 basketless heat treatment systems for automobile applications

Can-Eng Furnaces International Ltd, Canada, has recently installed and commissioned a high volume T-6 heat treatment system. This basketless heat treatment system (BHTS) will process aluminium intensive engine components for an automotive manufacturing company located in the south-eastern United States.

This system was specifically designed for integration into an existing engine plant for the processing of cast aluminium cylinder heads. Once fully implemented, this system will double the manufacturer's current casting heat treatment capacity.

The company's BHTS provides the engine manufacturer with a significant reduction in energy consumption and emissions, while also reducing the floor space requirements over conventional roller hearth treatment systems.

This lean manufacturing system allows for a reduction in WIP inventories while providing quality improvements through the unique individual part handling strategy. Cycle times are also reduced as a result of the individual part handling concept.



A Can-Eng basketless heat treatment system

BHTS provides significant reduction in maintenance requirements through the reduction of drive components and reduced quenching apparatus when compared to conventional chain conveyor systems.

The system integrates transfer devices, robotic automation, unique solution and aging furnaces, rapid quench transfer device, water quench system, part identification and a user friendly advanced controls package to deliver a cellular processing system.

Can-Eng Furnaces Ltd – Canada
Fax: +1 905 356 1817
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3-roll Stretch Reducing Block [SRB] Experience and Innovation



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The 3-roll Stretch Reducing Block [SRB] in "star-drive" design featuring individually driven rolls is the latest development in this area. The SRB strengthens your market position granting you great advantages over your competition in terms of product quality and plant economy:

- ⇒ top quality
- ⇒ high market flexibility
- ⇒ increased mill utilization and higher yield
- ⇒ reduced operating costs
- ⇒ high ROI and short investment recovery period

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Extensive range of induction heating equipment

ATE Applicazioni TermoElettroniche, Italy, designs and manufactures induction heating equipment and plants with related control and supervisory systems. The company's technology and knowledge ensure not only the advantages of induction heating, but also a design capacity targeted towards specific requirements.

The company's manufacturing programme includes medium frequency SCR converters (unit power up to 2,000kW, frequency from 0.5 to 10kHz), high frequency IGBT converters (unit power up to 800kW,

frequency from 4 to 150kHz), and induction heat-treatment plants for automated production lines.

ATE also offer plants for through-heating of steel, copper and aluminium (for subsequent hot-forming), plants for hot assembly of mechanical parts, and melting furnaces for ferrous and non-ferrous metals and precious alloys. In addition, the company supply plants for induction welding and brazing, and equipment for special applications of induction heating.

In the field of pipe heating, ATE's equipment can carry out tasks including annealing heat-treatment of stainless steel and titanium pipes, hardening and tempering of carbon steel pipes, preheating of carbon steel pipes, seam annealing of carbon steel pipes, stress relieving of end steel pipes, and coating and painting of steel pipes.

**ATE Applicazioni
TermoElettroniche – Italy**
Fax: +39 0444 406434
Email: info@ate.it
Website: www.ate.it

 ATE induction heating equipment and plants



Efficient and effective colour coating

Universal Finishing Systems is a UK manufacturer of coating equipment for the steel tube industry. The company has been manufacturing integrated modular pre-treatment, coating and drying systems for the tube industry for over 10 years.

Traditionally, the application of colour coatings is either carried with powder coating, which can be slow and energy demanding, or with conventional liquid coatings, which take a long time to dry and are often damaged by conveyor rolls and belts.

Universal's process uses pigmented UV curable coatings, which are applied in its vacuum coating system and then cured instantaneously by UV light radiation. This ensures that no volatile organic compounds (VOCs) are emitted during the process. In addition, all the coating is recycled.

The equipment is compact and it is possible to install the equipment on ERW mills, prior to the flying shear.

Universal Finishing Systems – UK
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Website: www.tubecoaters.com

New vacuum heat-treating capabilities

Solar Atmospheres, USA, has added to its range of high capacity vacuum furnaces, with the installation of a 36ft long furnace at its Western PA plant. Manufactured by Solar Manufacturing, the 36ft furnace supplements the company's three 24ft

furnaces and 40 other vacuum furnaces at its two plants.

The advantage of vacuum heat treating tube and pipe is precise and uniform temperature processing with bright results

and minimised oxidation. The 36ft furnace complements these advantages with the capability to heat lengths up to 36ft or large loads of coil. The new furnace has a hot zone with a working diameter up to 6ft. Work load capabilities can range up to 150,000lb, processing temperatures up to 2,650°F, and vacuum levels of 10-5 torr.

The large furnaces process tubing lengths and coils manufactured from stainless, copper, aluminium, Inconel and titanium. Processes depend on materials and specifications, with options that include bright annealing, hydrogen annealing, stress relieving, age hardening, solution treating and degassing.

Solar's large furnaces, 10ft, 12ft, 24ft and 36ft in length, are suitable for heat-treating various sized pipe lengths and loads. Stainless pipe lengths, bends and fittings are regularly annealed, and carbon steel pipe lengths are normalised.

Solar Atmospheres – USA
Fax: +1 215 723 6460
Email: info@solaratm.com
Website: www.solaratm.com

 Solar Atmospheres has installed a new 36ft furnace to complement its existing furnaces of up to 24ft



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Induction heating solutions for heat treatment

Induction Srl, Italy, provides solutions for induction heating with a focus on performance, efficiency and functionality. The company designs plants for a wide range of fields, according to specific requirements. Over the course of 20 years, the company has constructed and set up more than 1,000 installations in 44 countries.

The company produces equipment for a number of fields including frequency generators for any application of induction heating, standard heaters for hot forging, and induction heating for the metallic tube and pipe industry.

Induction also provides the technology for heat treatment, continuous heating for hot rolling, integrated heating systems for electric motors, hot driving and brazing.

Another important part of the Induction range includes furnaces for melting of precious and non-ferrous metals, and furnaces for the melting of steel and non-ferrous metals.

Induction Srl – Italy
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Email: m.albertin@induction.it
Website: www.induction.it


Good surface finish maintained via safe storage

Mink-Brushes, Germany, a specialist in the manufacture of high-value technical brushes, has developed a new system for the safe handling of valuable tube products. Tubes and pipes are high-value components in machine construction, so high quality expectations are placed upon their surface finish.

Through poor handling and storage, surfaces may become damaged. Scratches and marks on polished, coated or painted surfaces can result in high scrap rates. High-value stainless steel or aluminium profiles, or delicate glass or ceramic tubes, must be handled and stored with great care.

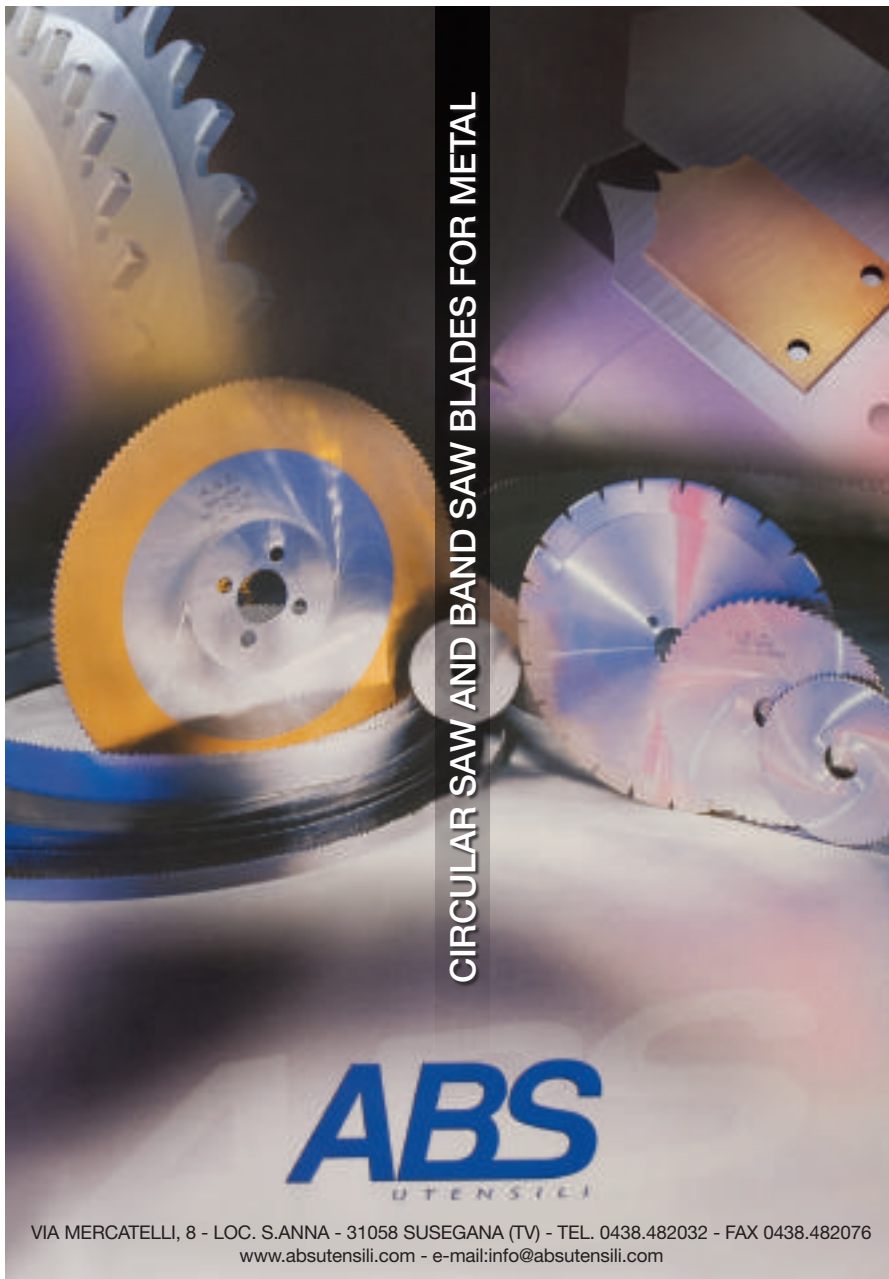
Scrap rates for products with sensitive surfaces are often increased by the use of conventional transport racks, trolleys and stillages. Previous solutions for the transportation, support and storage of sensitive products have not given the desired results; for example, profiled wooden or plastic bases covered with either carpet or soft matting.

Both options present problems: carpet wears down in areas where greatest pressure is applied, and then fails to

 *The Mink Prisma-System protects sensitive products*



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Heat & Surface Treatments

act as an adequate support. On soft matting, for example rubber, swarf and dirt embeds itself into the mat and can damage the surface of components. Scratches, marks and dull spots lead to increased scrap rates and slow down productivity.

The new Mink Prisma-System® offers a solution to these problems. The body consists of a plastic injection moulding in the form of a prism, onto which a small brush segment with many flexible bristles is clipped.


Where carpet or other plastic surfaces are used, dirt can become embedded, and swarf and splinters are not easily visible once they have been pressed into the body of a carpet.

Cleaning these surfaces is no easy matter, limiting the shelf-life of such surfaces as a means of effective protective support. Bristled support areas, however, can be easily cleaned and maintained (eg by washing), by use of an air gun or by individual segment replacement.

Swarf and splinters fall into the gaps between the bristles, providing a constant and reliable protection for sensitive surfaces. At the same time the surface area, with its numerous bristle tips, reduces friction and enables heavy goods to be moved around with ease. Unlike a carpet, dull spots can be avoided, as products rest on bristle tips.

August Mink KG – Germany
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Website: www.mink-buersten.de



 The system can be quickly assembled or dismantled

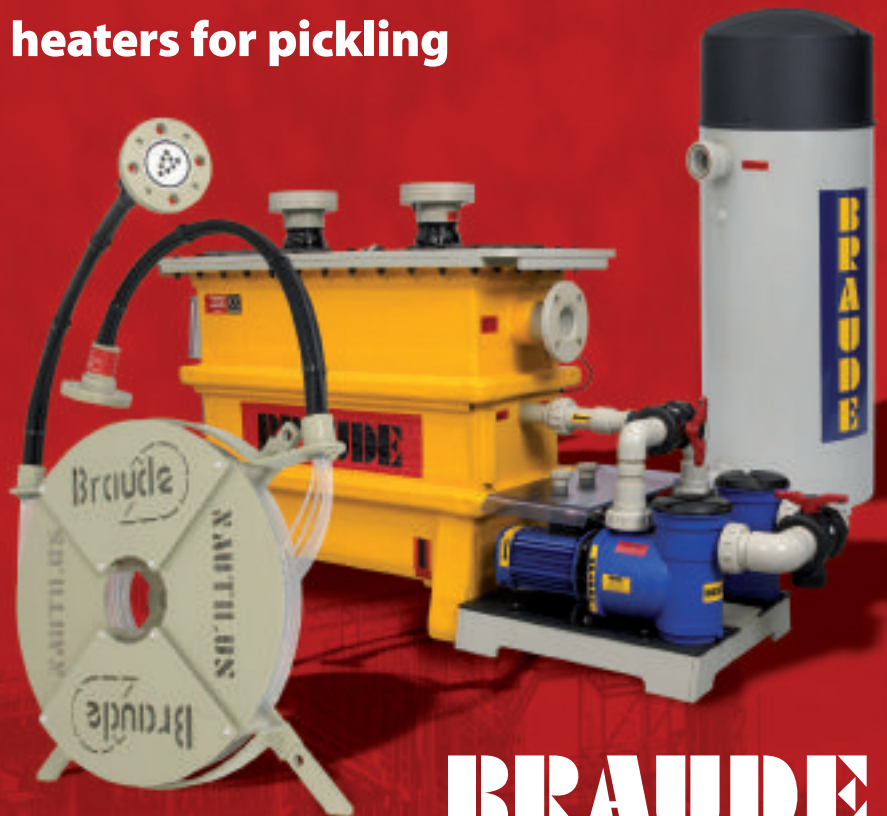
The system can simply be screwed onto an existing base. To increase the load bearing capacity or to increase the length of the support area, further prisms can be added. To enable precise assembly, and to centre individual units, a bore hole is provided which can house a linking shaft, if required.

The Mink Prisma-System is supplied as a kit, available in two different sizes: one for tubes with diameter up to 60mm, and one for tube diameters up to 140mm. By changing the clip-on brush segment type, the system can be easily modified to suit a variety of tube types, with no need for tools.

The standard range consists of four differing hardness grades. Each hardness grade is clearly identified by a colour coding on the brush surface, allowing the correct system to be chosen, and enabling easy re-ordering.

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Modern surface finish treatment for stainless steel heat transfer tubing

Heat exchangers have the function to convey heat energy from the medium surrounding the tube into the medium flowing inside the tube – or the other way round.

The tube material of heat exchangers in the chemical, food, pulp and paper industry consists of seamless or high quality longitudinally welded stainless steel tubes in the alloy qualities EN 1.4301 (AISI304), EN 1.4404/1.4435 (AISI316L), EN 1.4571 (AISI316Ti), EN 1.4539 (904L) or similar.

Analysis of practical occurrences reveals that the determining factor for the unfavourable development of heat energy conveyance mainly lies in the increasing reduction of the heat penetration value k , which essentially influences the output of the heat exchanger system.

Tests confirm that the heat penetration value k drops drastically after only a

few operating hours in conventionally treated stainless steel inner surfaces (eg cold drawn, annealed and chemically pickled, mechanically ground, welding seam refinished).

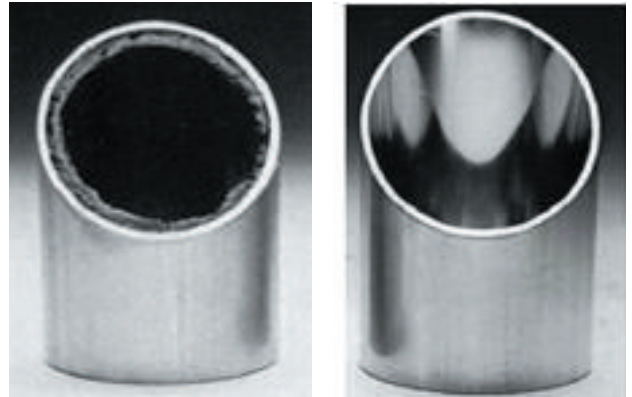
It is usual, depending on the flowing medium, to find reductions in the heat penetration value k down to a tenth of the initial value.

As a reason for this effect, it has been recognised that a constantly growing coating forms itself on the metal surface inside the tube as operating time progresses, consisting of deposited, mostly crystallized particles of the flowing medium (incrustation), which is obviously directly responsible for the reduction in the heat penetration value k .

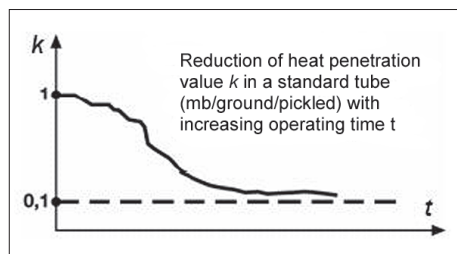
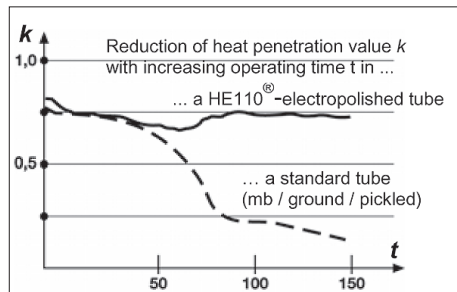
In most cases, there is a tendency that some tubes become fully incrustated during further operating time and that other tubes at least form a considerable coating (eg contractions of cross section, heat insulation layers).

Whilst the reduction in the heat penetration value k and the tube cross section surface can be compensated at the outset with regard to operating continuity by increasing energy expenditure (available heat and increase of surrounding temperature, pump capacity and increase of flow), complete incrustation leads to system idle times and expenditure on cleaning.

Analysis of the surfaces of a stainless steel tube that has been mechanically finished by grinding or polishing, or post-treated by chemical pickling, has shown that conditions are relatively poor from both geometrical and energy points of view.



(Above left) standard tube (mb/ground/pickled) after operating time $t = 80h$ in an evaporator for waste pulp liquor; (above right) HE110®-electropolished tube (removal rate $15\mu m$, surface roughness $Ra = 0.20\mu m/l_t = 4.8mm$)



The topography of the surface resembles a sharp-edged or jagged mountain landscape. This structure encourages the anchoring of foreign particles, which further results in the formation of a coating layer on the stainless steel surface.

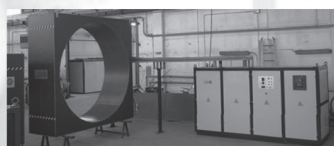
Trials subjecting Henkel's HE110®-electropolished stainless steel surfaces that come into contact with media have been positive without exception. In microscopic observation (magnification times 500...3,000), the topography of the surfaces (roughness Ra and Rz) proves to be ideally rounded and leveled.

The mechanically damaged layer of material is removed which reduces the energy level of the surface to a minimum. The previous, relatively active stainless

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ADJUSTABILITY

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or rough coating

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HIGH VOLTAGE

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POWDER CONTROL

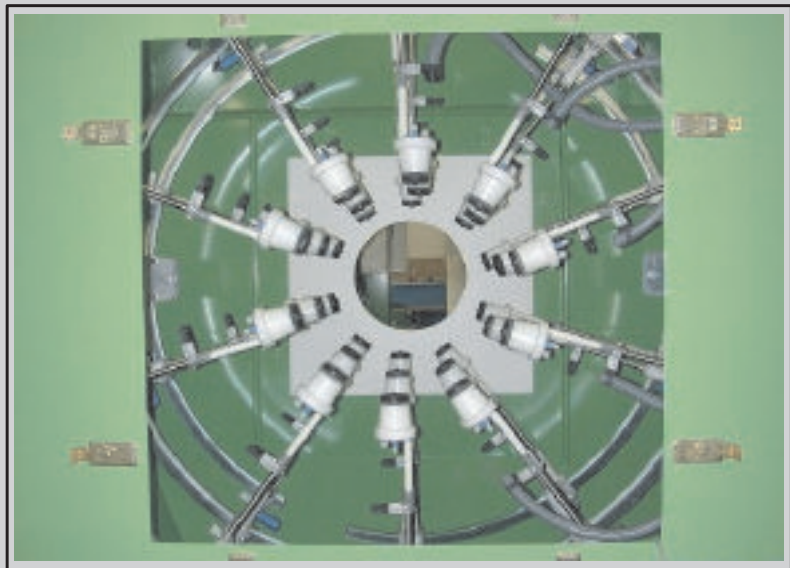
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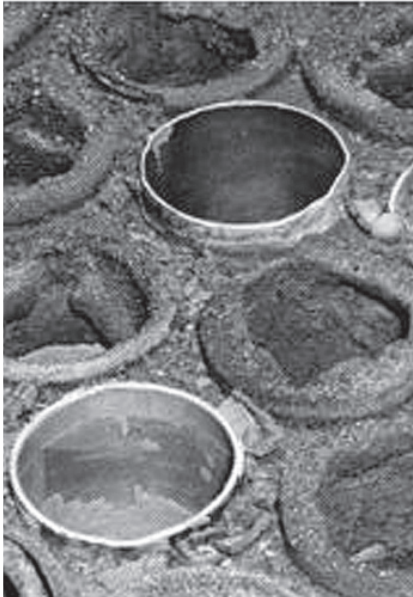
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steel surface now proves to be completely passive and shows an essentially reduced inclination to adhesion of foreign matter (from a structural as well as energy point of view).

Example of tube incrustation on a tube plate: the two incrustation-free tubes are HE110®-electropolished test tubes



The practical results of HE110®-electropolishing and conditioning of stainless steel surfaces correspond to the expected theoretical consequences.

There is an obvious relationship between the surface condition (level of energy and surface roughness), and the behaviour of the heat penetration value k during operating time and the formation of the coating.

Because foreign matter coating can be avoided, layer growth is not expected, and in special cases only in very weak form.

Tests have shown throughout that HE110®-electropolished stainless steel surfaces prevent, or at least strongly obstruct, the formation of coatings, and therefore enable the achievement of significant efficiency in production.

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 – Germany
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 E-mail: b.henkel@henkel-epol.com
 Website: www.henkel-epol.com

Launch of new HVOF spray system for improved coating

Metallisation, an expert in the technology of surface coatings, has launched the new Met-Jet 4L liquid fuel HVOF system, the latest development in its kerosene fuelled HVOF systems.

The Met-Jet 4L has all of the features of the Met-Jet III, and also boasts a number of enhancements and improvements. It is a mass flow controlled system, to ensure a repeatable coating, and produces the densest metallic and carbide coatings of all the Metallisation systems.

The coatings can be compressively stressed, allowing thick layers to be applied without fear of spalling and with the new improvements. The result is a high quality, compact and easy to use HVOF system.

The pistol combustion chamber has been modified to achieve cleaner burning and higher quality coatings, and the nozzle arrangement has been simplified to reduce the running costs of consumable spares. The powder feeder has mass flow



SHANGHAI YUEYUECHAO STEEL TUBE

Established in 1994, Shanghai Yueyuechao Steel Pipe Group mainly deal with seamless steel pipe, seamless square/rectangle steel pipe, large OD LSAW manufacture. The specification for LSAW of Shanghai Yueyuechao Manufacture Tube Co., Ltd is $\Phi 356-1422 \times 8-60\text{mm}$. The specification of cold drawn seamless steel tube for Jiangyin Yueyuechao Manufacture Tube Co., Ltd, ranges from $\Phi 6-426 \times 1-20\text{mm}$, hot expanded tube specification ranges from $\Phi 168-630 \times 4-30\text{mm}$. Quality standards are API/ASTM/GB/ISO/DNV/JIS.

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 Metallisation's Met-Jet 4L liquid fuel HVOF system

controlled carrier gas and closed loop motor control for reliability and repeatability of powder feed rates.

The key benefits to the operator include improved repeatability of the coating, ease of use, and unlimited 'recipes', which can

be preset using the parameter recording facility to ensure consistent coating quality. The hydrogen start-up ensures a smooth lighting sequence, reducing the loading on the pistol, while the use of kerosene in place of hydrogen fuel makes the system more economical.

With the Metallisation HVOF spray system, liquid fuel and oxygen are fed via a pre-mixing system, at high pressure, into a combustion chamber. Here they burn to produce a hot, high-pressure gas stream, which heats and accelerates the powder particles inside a secondary nozzle so that they impact with tremendous kinetic energy upon the substrate material. The Met-Jet 4L does not melt the powders, it just softens them, resulting in minimal oxidation and decomposition.

The new pistol has an optimised, single point fuel injection system to promote a complete, clean burn within the combustion chamber. Two nozzle lengths are available, 100mm and 200mm, to enable a wide range of coating properties to be achieved, from hard but ductile coatings, to extremely hard but more brittle coatings. The simple nozzle design will also reduce consumable

spares costs, which in turn ensures simple maintenance, and reduced downtime for the operator.

The control system consists of a PC with a touchscreen operator interface and a gas box. The individual operations of the system are controlled by PLCs in the gas box and powder feeder. The PC and PLCs are linked by serial bus to minimise wiring and increase reliability.

The control system can accept signals from the booth door, the extraction system, robot and gas detectors to fully link and automate the system. It also provides the interface between the gas box, powder feeders and robot by serial bus interface. Up to 255 items can be interfaced, allowing multiple powder feeders to be linked.

The system can be interfaced via USB to an external source, such as a barcode reader, an interlocked signal to production automation or a manual component selection switch box.

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Technical consultation

Chemicals






Hydrocarbon system for inline, individual part cleaning in cycles

Dürr Ecoclean GmbH, Germany, has introduced the EcoCSpeed for inline cleaning of individual parts. This innovative system makes it possible to clean complex geometrical workpieces during the manufacturing cycle using non-halogenated hydrocarbon.

The EcoCSpeed has several process modules that can be loaded in delayed phases via a specially designed handling system. The cleaning process may include injection flood washing, steam scouring,

 The EcoCSpeed is used for inline cleaning of individual parts



and vacuum drying, and the cycle time can be adjusted to suit the manufacturing cycle. Cleanliness is achieved even for stringent specifications. Process quality and efficiency is ensured by cleaning complex parts individually rather than in batches.

In the past, short cycle times and strict cleanliness requirements presented problems for inline cleaning processes, especially when cleaning complex, mass-produced workpieces. Very complex, continuous systems were required, and the spraying methods used in these systems were only partially able to clean the parts.

The innovative EcoCSpeed system, which is equipped with several process modules, was designed to be integrated into production lines, or directly connected to production systems and machining centres. The workpieces can be cleaned individually or as a batch from production in a product carrier.

The basic version of the EcoCSpeed is equipped with five process modules, which are designed for part/batch dimensions

of up to 370 x 220 x 200mm (L x W x H). The maximum weight of parts or batches is 30kg. This allows the new inline cleaning system to reach throughput of 2.7 tons per hour. With dimensions of 7500 x 3500 x 3100mm, it more than meets the demand for space-saving cleaning technology.

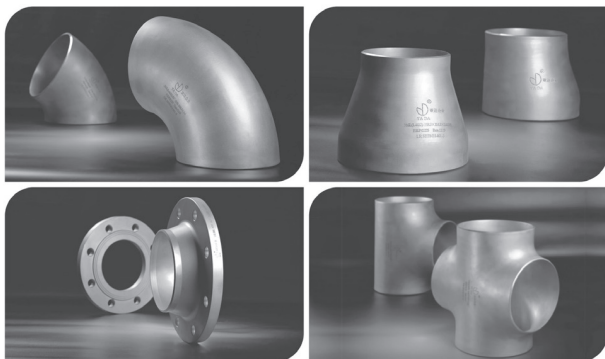
The EcoCSpeed's flexible design makes it possible to equip the system with additional process modules to ensure that the overall 40-second cycle time is maintained. The work chambers are loaded in a delayed process by a handling system which is tailored to the workpiece or the batch.

In the work chambers, the parts are treated by injection flood washing (IFW), steam scouring and vacuum drying. For IFW, jet systems pump the cleaning agent at high pressure into a flooded work chamber, producing a whirlpool effect.

Due to the vacuum drying process, workpieces leave the system completely dry and ready for immediate downstream processing.

Dürr Ecoclean GmbH – Germany
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Website: www.durr-ecoclean.com

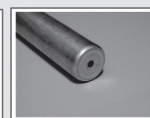
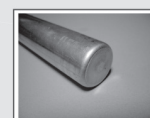
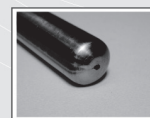
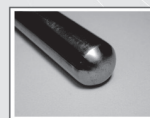
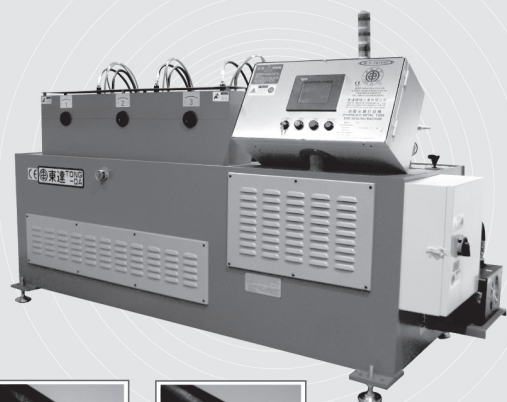
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From the AMERICAS

Airlines

As fuel prices reach record highs and a weak economy reduces air travel demand, cash-strapped US carriers struggle

"Just months after reporting their highest annual profits in eight years, US airlines are in a nose-dive that could leave some major carriers in bankruptcy."

This stark assertion by *Chicago Tribune* reporter Julie Johnsson was prompted by a Standard & Poor's research report that warns the ten largest US airlines they must boost revenues and restructure loans. If they do not, their cumulative cash could shrink 62 per cent to about \$8.6 billion by year's end. This amount is insufficient to cover even one month's expenses at the carriers, S&P chief credit analyst Philip Baggaley told the *Tribune* (*'Fuel costs may thrust airlines into bankruptcy,'* 19 May).

The report by the credit-ratings agency, released 16 May, calculates that gaining pricing power in a fragmented, overserved industry would require US airlines to cut as many as one-fifth of their domestic flights: the equivalent of grounding two major carriers.

The *Tribune* noted that there can be no easy answers for executives in an industry in which mergers *'are unwieldy and notoriously difficult to complete'*, and in light of the volatility of global fuel markets. Crude oil prices have doubled over the past year, and in fact rose about 15 per cent in the two weeks before the Johnsson article was published.

"Fuel is astronomically expensive, to the point of pushing the industry past the point of economic viability," Henry Harteveldt, travel industry analyst with Forrester Research Inc, told the *Tribune*.

Of the major American carriers, only Southwest Airlines is expected to earn a profit in 2008 – and it has mortgaged 21 aircraft to raise \$600 million to bolster its cash reserves. Wrote Ms Johnsson, *"United, American, and Northwest Airlines have all renegotiated covenants that would likely cause them to default on loans later this year if cash flows continue to decline. United also renegotiated an agreement with its largest credit card processor."*

Again excepting only Southwest, every major US airline plans big cuts in its flying schedule after the summer travel season. American Airlines said on May 21 that it would cut jobs, retire old planes, and cut domestic capacity by 11 per cent to 12 per cent in the fourth quarter. The world's largest airline also said that, as of mid-June, it would charge \$15 for the passenger's first checked bag in an effort to offset its fuel costs. American will take at least 75 mainline and regional aircraft out of its aging fleet, the biggest scaling-back of its services since the attacks of 11 September 2001.

In March, Delta Air Lines said it would cut 2,000 jobs and reduce domestic capacity by 5 per cent, on top of a 5 per cent cut already planned, for a year-on-year decrease of about 10 per cent. In April, Northwest Airlines, which has agreed to be bought by Delta, announced its own plan to take some older planes out of service and cut domestic capacity by about 5 per cent.

The *Tribune* reported that Chicago-based United plans to cut 52 flights, ground at least 30 planes, and trim its domestic network by

9 per cent during the fourth quarter. And, according to the hometown newspaper, the nation's second-largest carrier is looking at a host of other ways to trim costs and raise revenues.

- As financially squeezed airlines cut flights, nearly 30 cities across the United States have seen their scheduled service disappear in the last year, according to the Bureau of Transportation Statistics. Among them are New Haven, Connecticut; Wilmington, Delaware; Lancaster, Pennsylvania; Hagerstown, Maryland; and Boulder City, Nevada. As reported by Micheline Maynard in the *New York Times*, more than 400 airports in cities large and small have seen flight cuts over the same period. Citing the *Official Airline Guide*, Ms Maynard noted that, in May, the number of scheduled flights in the US dropped 3 per cent, representing 22,900 fewer flights than in May 2007 (*'Airlines' cuts making cities no-fly zones,'* May 21)

Railroads

Fairly well insulated from high fuel prices, a moribund American industry prepares for a bright future

Even as leading US airlines fight for their lives, the country's railroads are enjoying a spectacular return to vitality. Rail traffic, revenue, and profit began to soar in 2002 and seem largely immune to the downturn affecting much of the rest of the economy. In a time of layoffs and cutbacks in aviation, the rail industry has been taking on workers: more than 5,000 new hires in 2006. According to the Transportation Department, freight rail tonnage will rise nearly 90 per cent by 2035, when shipping long since consigned to aircraft and big interstate trucks will have returned to the rails.

The reason for the turnaround is twofold: growing global trade, which benefits airlines, truckers, and railroads equally, and rising fuel costs – which affect railroads much less severely. While movers by air and high road are hostage to soaring diesel prices, most of the nearly \$10 billion that the railroads will spend in 2008 can go toward self-improvement: adding track, building switchyards and terminals, opening tunnels to handle the expected horde of customers.

Some background offered by Frank Ahrens of the *Washington Post* compounds the irony: *"In the 1970's, tight federal regulation, cheap truck fuel, and a wide-open interstate highway system conspired to cripple the railroad industry, driving many lines into bankruptcy. The nation's 300,000 miles of rails became a web of slow-moving, poorly maintained lines, so dilapidated in spots that tracks would give way under standing trains."*

The Staggers Rail Act of 1980 largely deregulated the industry, leading to a wave of consolidation. More than 40 major lines were folded into the seven that remain, running on 162,000 miles of track. Now, of course, the changing global market has created a need to lay new track for the first time in 80 years (*'A switch on the tracks: railroads roar ahead,'* April 21).

A train can haul a ton of freight 423 miles on a gallon of diesel fuel, for an approximate 3-to-1 fuel-efficiency advantage over trucks [*'18-wheelers'*]. Mr Ahrens plausibly calls this a *'green gift'* dropped into the lap of the railway industry, now actively promoting itself as



the eco-friendly choice for moving freight. He noted that trucking firms also use the rail lines. The US-based United Parcel Service Inc (UPS), the world's largest package delivery company, is the railroad industry's biggest customer.

- As for the payload and direction of the new, busier traffic on US railroad tracks, the *Post* noted that China's unquenchable appetite for coal, together with the escalating American demand for Chinese goods, means more freight is passing through ports in the Northwest on its way to and from the Far East. "Coal still accounts for the most tonnage hauled by U.S. railroads," Mr. Ahrens wrote. "But it is the ocean-crossing shipping container that has lit a rocket under the railroad industry."

To spare a thought for the mere humans contributing to the railroad renaissance, passenger traffic by rail is also increasing. Amtrak, the federally owned and operated nationwide intercity rail service, marked its fifth consecutive year of increased passengers in 2007. Foot traffic was up 6 per cent from 2006.

Pete Domenici, of New Mexico, the top Republican on the Senate Energy and Natural Resources Committee.

Mr Domenici, speaking in early April, was referring to the decades-old plan for a pipeline to transport natural gas from Alaska's energy-rich North Slope to markets in the contiguous states of the nation. Suddenly there is keen interest in the undertaking, with a pair of feasible proposals having been put forward.

As reported in the *Chicago Tribune* for 9 April, two of the world's largest oil companies had just disclosed plans to jointly develop a pipeline. Britain's BP PLC and ConocoPhillips, based in Houston, Texas, said that over the next three years they are prepared to spend \$600 million in the first phase of the \$30 billion project. The *New York Times* reported that the pipeline may eventually be extended to Chicago.

'Denali – the Alaska Gas Pipeline' is projected to deliver natural gas 2,000 miles from Alaska to Alberta, Canada, thence into an existing pipeline system. Or, BP and ConocoPhillips said, if necessary they might build an additional 1,500-mile extension to US markets. The companies said the pipeline would eventually move about 4 billion cubic feet of natural gas per day, accounting for about 6 per cent to 8 per cent of daily US consumption.

Alaska is also reviewing a proposal by TransCanada Corp (Calgary, Alberta), which submitted an application in November 2007 for a state-backed license to build a pipeline. Only one is likely to prevail in the competition to move ahead on a project that has been held for two years in a legislative stalemate, after years of talk but little action.

Oil and gas

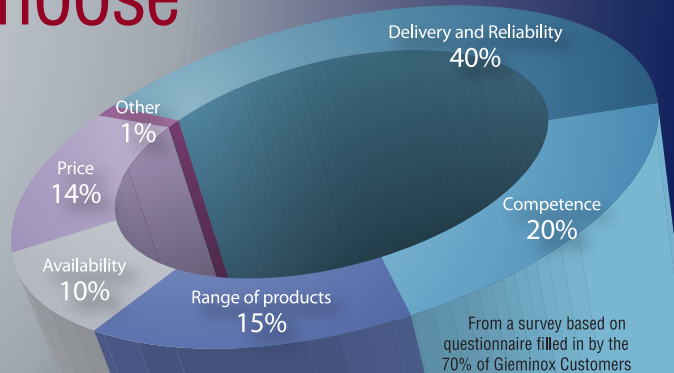
A gas pipeline from the North Slope to 'the Lower 48' moves closer to realization

"With uncertainty surrounding our ability to meet future natural gas demand, and the potential for more exploration in Alaska as a result of constructing the pipeline, this project is vital," said US Senator

Seven reasons to choose Gieminox

welded pipes and fittings

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No timeline was announced for construction and completion. It is expected to be at least 10 years before gas begins to flow. Even so, with so many regions in continental US off-limits to oil and gas development, a gas line from an Alaska to the heartland is an attractive prospect worth the wait.

Of related interest . . .

➤ Alaska Native and environmental protection groups on May 5 sued to stop exploration this summer in Arctic waters, challenging US permits that allow Shell Oil Co and BP PLC to search for oil and gas with the use of powerful acoustic devices. The technology, known as seismic exploration, examines the geologic makeup of the seabed. According to the nonprofit law firm Earthjustice, for the plaintiffs, the federal government violated US laws by failing to study the effects on marine animal life before permitting the companies to project 'noises as loud as a rocket or a volcanic eruption' into the sea.

For almost a decade, London-based BP has been the only company producing offshore oil in Arctic Alaska. But receding sea ice has drawn other companies to the region, with Shell Oil emerging as the largest new player. In February, the US-based affiliate of Royal Dutch Shell paid the US government \$2.1 billion for oil and gas leases in the Chukchi Sea, which spans Russian and American territory. The company had already spent more than \$80 million for federal leases in the Beaufort Sea, about 450 miles to the east.

Steel

To recoup surging energy and raw materials costs, ArcelorMittal raises some US prices

The mid-April announcement by ArcelorMittal, the world's largest steel maker, that it would raise prices on some steel shipments in the US by \$250 a ton boosted the fortunes of a number of American steel makers. US Steel, based in Pittsburgh, added \$8.74, or 6 per cent, for a record close on April 16 of \$155.37. AK Steel (West Chester, Ohio) also reached its highest value ever, gaining \$2.35, or 3.6 per cent, to close at \$68.50. Other beneficiaries included Nucor (Charlotte, North Carolina) and Steel Dynamics Inc (Fort Wayne, Indiana).

As reported by Dale Crofts of Bloomberg News, according to an internal memo ArcelorMittal was to add the surcharge to all orders

of flat rolled steel for shipment 5 May and later. The Luxembourg-based company will not add the charge to spot sales or contracts that already allow prices to fluctuate, the memo said.

The US producers were cagey about their response to the news from Europe, despite the lift it gave them. US Steel will work to get 'the market price' for its metal, spokesman John Armstrong told *Bloomberg*. He declined to say whether the company, which sells about 50 per cent of its steel under contract, would follow ArcelorMittal's move.

"We will continue to honour our contracts," said Alan McCoy, a spokesman for AK Steel, the No 3 US steel maker. "Most of our contracts for the last seven years have had a variable pricing component."


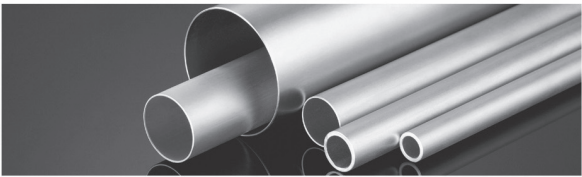



Global steel prices have gone up 40 per cent since the beginning of 2008; and, according to *Purchasing* magazine, US prices for flat rolled steel rose to \$740 a ton in March from \$665 a month earlier. Mr Crofts wrote, "ArcelorMittal wants to take advantage of soaring global demand to pass on higher costs for iron ore and the energy to produce and ship the metal."

- AK Steel had already generated good news of its own, reporting that first-quarter profit rose more than 60 per cent, aided by soaring global steel prices and favourable labour contracts. The Ohio-based maker of flat rolled carbon, stainless, and electrical steel, and carbon and stainless tubular products, posted net income of \$101.1 million for the period ended 31 March, compared with \$62.7 million a year earlier. Sales totalled \$1.79 billion, compared with \$1.72 billion in first-quarter 2007.

A company spokesman noted that, while many such traditional customers of American steel mills as those in the automotive sector have been hit by the country's economic slowdown, other markets – commercial construction, energy – continue to generate strong demand. AK Steel has streamlined itself to take advantage of these opportunities. The company has about 30 per cent fewer employees system-wide than it did five years ago.




Elsewhere in steel . . .

➤ Cleveland-Cliffs Inc, North America's largest producer of iron ore pellets, said first-quarter profit fell 49 per cent after a loss on a Brazilian iron ore project. Net income was \$16.7 million in the three months ended 31 March, down from \$32.5 million a year earlier, the

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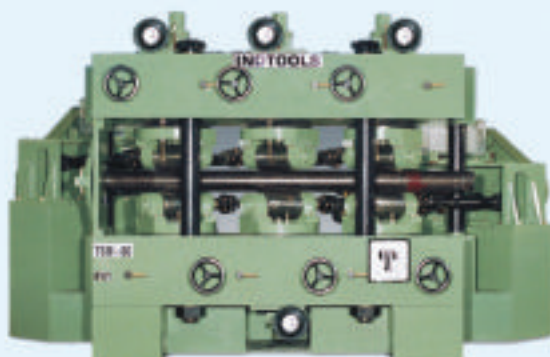


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Cleveland, Ohio-based company said 5 May. Its investment in the 30 per cent-owned Amapa iron ore mine in Brazil cut income by \$6.9 million, Cleveland Cliffs said. Increased spending on infrastructure projects in regions including the Middle East has caused a surge in prices for the raw materials of steel production. Cleveland-Cliffs said it expects to sell ore for \$78 per ton this year in the US, 18 per cent more than in 2007.

➤ President Hugo Chávez of Venezuela has signed a decree formalizing the nationalization of Venezuela's largest steel maker Ternium Sidor, with the intention of transforming it into a socialist enterprise. Mr Chávez had complained that the Argentine-controlled company has not put a high enough priority on supplying the home market. On a 12 May visit to a Sidor plant, he told workers that his government plans to reduce Sidor's exports and increase steel supplies for domestic consumption. Sidor was previously controlled by Luxembourg-based Ternium SA, whose main operations are in Mexico, Venezuela, and Argentina. The Venezuelan government was reported planning to compensate Ternium for the takeover before 30 June.

Automotive

Rising gasoline prices and falling truck sales nip Ford's recovery in the bud

Less than a month after reporting a surprise first-quarter profit, Ford Motor Co on 22 May said that it would drastically scale back

production and step up its cost-cutting efforts in response to a sharp drop in sales of pickups and sport utility vehicles (SUV's). Ford executives also retreated from their pledge of delivering a full-year profit in fiscal 2009.

Ford now forecasts industry-wide demand for cars and light trucks of only 14.7 million to 15.1 million vehicles – the lowest point in more than a decade. The revision downward reflects the toll that high gasoline prices and weak economic conditions have taken on auto sales in the US.

The slide in pickup sales – tied closely to housing starts and construction activity – is particularly jarring for Ford and its domestic rivals General Motors and Chrysler, which all rely on that sector for much of their profits. In 2007, pickups accounted for about 14 per cent of the overall US market; they now represent 9 per cent.

Ford will cut its overall North American production by 15 per cent in the current quarter from year-ago levels, as well as by 15 to 20 per cent in the third quarter and 2 to 8 per cent in the fourth quarter.

In light of this forced retrenchment, Ford's beating Wall Street expectations with a first-quarter profit of \$100 million rings hollow. But it was a creditable performance, as surging sales in South America and Europe helped offset a loss in the company's core North American division. Analysts attributed the results, which marked the Ford's first profitable quarter since the second quarter of last year, at least partly to the restructuring.

First-quarter revenue was \$39 billion, Ford said, down from \$43 billion in the corresponding period a year earlier. But ongoing cost-

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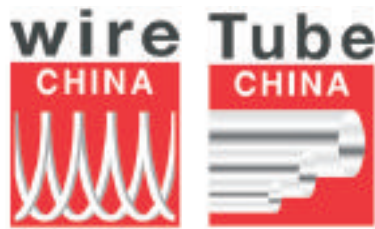


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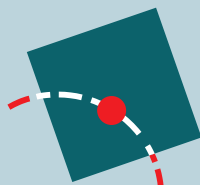
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cutting – \$1.7 billion in the first three months of this year alone – helped push profits up nearly \$400 million over first-quarter 2007.

The No 2 US auto maker has been cutting its workforce, with some 4,200 employees leaving the rolls in the most recent round of buyouts. Among other money-saving initiatives, the company is seeking to streamline and unify its various overseas operations under the motto 'One Ford Everywhere'.

- David E Cole, an analyst at the nonprofit Center for Automotive Research, told the *Washington Post* (25 April) that changes of the kind under way at Ford will likely mean radical price shifts for future buyers of new US-made vehicles. The cost-saving effects of the new auto-industry labour contracts could, he said, reduce the average cost of a new GM vehicle by \$4,000 to \$5,000 by 2010. At the same time, tougher federal fuel-efficiency standards could offset those savings, ultimately raising the price of a new car.

Mr Cole said, "Consumers better realize in the next couple of years the deals they'll see are not going to be repeated for a long, long time."

Other automotive news . . .

➤ Eleven General Motors Corp parts and power train plants resumed full production on 19 May after work was cut in response to the United Auto Workers (UAW) strike against American Axle & Manufacturing Inc, a major supplier to GM. The 12-week strike had limited or stopped production at more than 30 GM factories. According to *Detroit Free Press* business writer Katie Merx, GM said it planned to resume production even before the UAW and Detroit-based American Axle announced a tentative labour agreement. GM declined to say where it obtained the parts necessary to resume work at those plants.

➤ Pittsburgh-based aluminium producer Alcoa on May 12 announced that its Alcoa Electrical and Electronics Solutions unit will close its operations in Puebla, Mexico, and its warehouse in Del Rio, Texas, during the third quarter of 2008. The business produces and distributes electrical distribution systems and other products for the North American light and heavy vehicle markets.

The division works with vehicle manufacturers and their suppliers in major automotive centres in the US, Europe, and Asia. The decision to fold the Mexican and Texan operations was attributed to lower production demand and the need for change 'to improve [the company's] logistics processes'. Alcoa EES employs approximately 14,000 people in Mexico and 1,350 in the US.

The economy

Forecasting data and other indicators point to slow growth ahead for the US

To judge from a key forecasting gauge that rose for the second straight month in April, the US economy is weak but does not yet appear to be in a recession. The index, compiled by the Conference Board and published on 19 May, increased 0.1 per cent, better than expected and matching the gain in March. The increase in March was the first gain since September 2007.

The median estimate of 53 economists surveyed by *Bloomberg News* had forecast no change in the index. The closely watched measure from the Conference Board, the New York-based management-oriented organization that connects 1,600 corporations worldwide, suggests the direction of the economy over the ensuing three to six months.

"The message is that activity is soft but not moving down sharply," Michael Moran, chief economist at Daiwa Securities America (New York), told *Bloomberg*, "The economy is muddling along."

Even so, prospects are for slow growth in the months ahead; and, if the Conference Board's latest reading invites cautious optimism that conditions are improving, it is in sharp contrast to another closely watched forecast. The latest survey by the National Association of Business Economists, released the same day, showed more than half of 52 economist-respondents believing a recession has already begun or will develop this year.

While the question of where to set the recession/no recession line vexes executives and economists, most Americans are mainly interested in how long the slowdown will last. For them, there was only some qualified encouragement.

"The small increases in the leading index in March and again in April could be a signal that the economy may not weaken further," Ken Goldstein, a Conference Board economist, said in a statement.

A drop in consumer expectations about the economy and a decline in manufacturing hours were among the components that restrained the board's index.

- The US Government believes that inflation is in check. Consumer prices are reported to be inching up, suggesting cooling inflation, and the Labor Department reported that wholesale prices climbed just 0.2 per cent in April. But the number of small-business owners citing inflation as their No 1 concern is the highest since 1982, according to the National Federation of Independent Businesses (NFIB) monthly economic index for April.

The cost of diesel fuel, which powers many small-business vehicles, set another record on 21 May – about \$4.56 a gallon, up nearly 64 per cent from a year earlier. And gasoline prices were at about \$3.80 a gallon. According to William C Dunkelberg, the NFIB's chief economist, one in five small-business owners is raising prices.

"The Federal Reserve in its minutes says it is counting on the recession to manage inflation," Mr Dunkelberg wrote in his summary, "If we are in a recession, it is not getting the job done."

- Americans' views on the economy and the general state of the country have hit an all-time low in the history of the CBS News/ New York Times poll. Eighty-one per cent of respondents in the most recent poll said the country is on the wrong track, while only 14 per cent believe it is headed in the right direction. Asked to compare the state of the country now to what it was five years ago, 78 per cent said things are worse today – the highest percentage since CBS News began asking the question in 1986. Only 4 per cent of respondents said things are better now.

Dorothy Fabian, Features Editor (USA)



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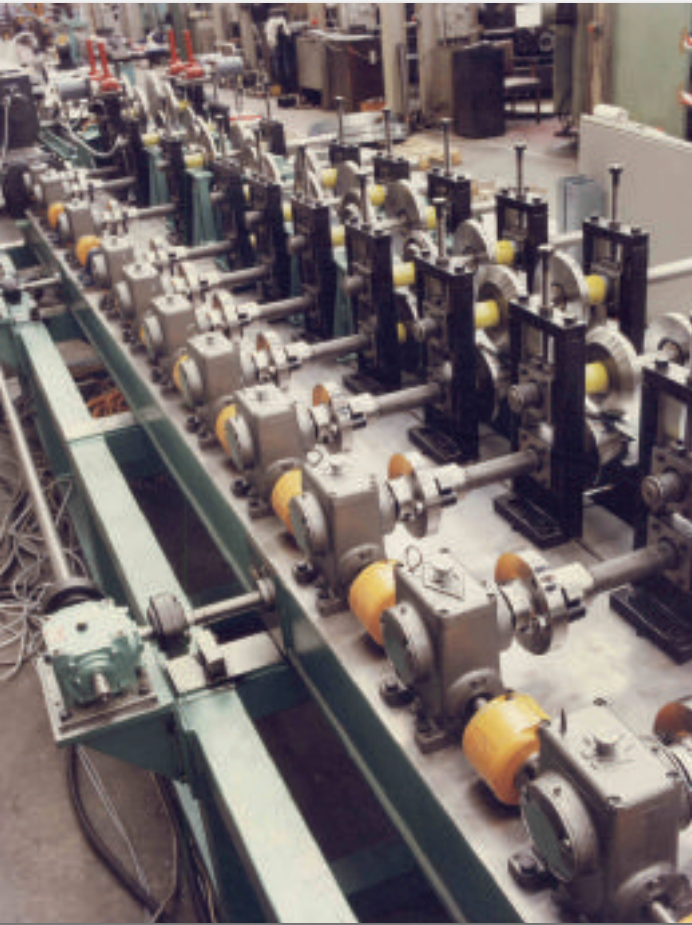
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Focus on Tube & Pipe Mills and Rollforming Lines



In a mature industry, year-to-year advances are often gauged by the number and sophistication of simultaneous inline fabrication processes that can be comfortably accommodated.

Advances are measured by the extent to which the finest automated machinery enhances the contribution of these operations to the finished product. This is even truer in the area of tube mills and rollforming lines, where Swiss army knife versatility is an increasingly important factor.

Cut-to-length is the aspect of tube manufacture that may be taken for granted. But pre-notching, pre-punching, and post-punching are true ancillary processes that expand the concept of rollforming even as they add new lustre to the term 'value-added'.

These are not add-ons in any sense. They are precision procedures in their own right, minutely calibrated with

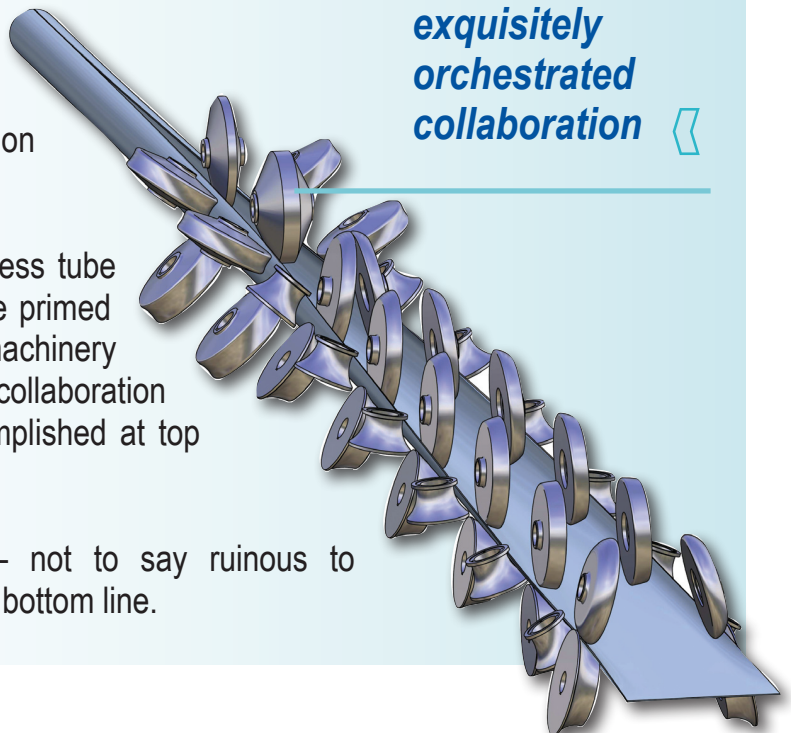
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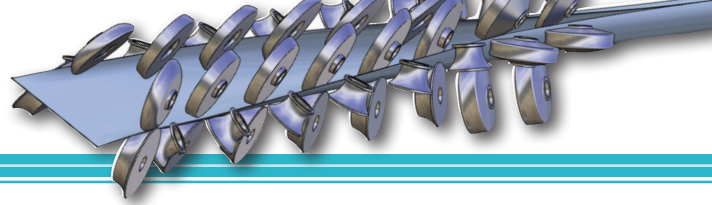
production of the roll formed sections. The roll dies bend the metal into shape. The pre-punch dies and pre-notch dies, between the entry side of the roll former and the coil reel directing the feedstock, perform their own separate but equal functions. As the finished sections exit the line, the post-punch dies complete the fabrication cycle.

Like rollforming lines, welded and seamless tube mills are magnificent workhorses that are primed for optimum production. Both sets of machinery carry out an exquisitely orchestrated collaboration that is, of course, continuous and accomplished at top speed.

Anything else would be unthinkable – not to say ruinous to productivity and, by extension, the plant's bottom line.

➤ **Both sets of machinery carry out an exquisitely orchestrated collaboration** ◀





Tube & Pipe Mills and Rollforming Lines

Meeting the demands of JIT delivery: quick-change tube mills with 'dual capacity' flexibility

T&H Lemont, USA, is a leading supplier of tube mills, mill rolls, consumable tooling, and related equipment. The company has recently delivered a new dual capacity tube mill system with quick-change capability. This mill is designed to produce standard mechanical rounds as well as hollow structural shapes.

The dual capacity tube and pipe mill systems were developed by T&H Lemont to give tube and pipe producers a wide ranging flexibility to handle demand for just-in-time (JIT) deliveries of welded pipe and tubular products. The dual capacity mill design allows for a greater range of production diameters using a minimal amount of floor space.

In effect, the dual capacity mill system gives a tube and pipe producer the ability to produce a range of tube and pipe normally produced on two different sized mills. With a dual capacity mill, the entire set of entry and exit equipment is designed to be

universal; as are the mill bases and drive systems. The 'dual capacity' of a mill is achieved by two different size sets of quick change subplates designed to mount on a single base system and utilize a universal drive system.

In this most recent case, one set of subplate mounted driven stands with 3.5" shafts was designed for producing tubing from 1.250" to 5", while a second set of subplates with 6" shafts was designed to produce tubing from 2.5" to 8" diameter.

The distance between the stands was optimized for the products manufactured on each set of subplates. As with all quick-change systems, one set of subplates will be in production while the second set of subplates is available for changeover.

In addition, this mill was designed to utilize an overhead crane system to assist in the change out of the subplates. The subplates

➤ **Dual capacity is achieved by two different size sets of quick change subplates designed to mount on a single base system** ◀

are held to the base by a special hydraulic clamping system. This allows the subplates to be connected rigidly and precisely to the mill base and when necessary, disconnected from the base quickly and efficiently.

T&H Lemont has recently signed a new contract with a second customer to supply a dual capacity, high frequency, quick change welded pipe mill to produce API products. The overall size range for this new mill will be 0.75" to 4.5" diameters.

T&H Lemont is continuously exploring new technologies and innovations to reduce tube and pipe production costs, expand capacity or capability and improve productivity for the welded tube and pipe and rollforming industries.

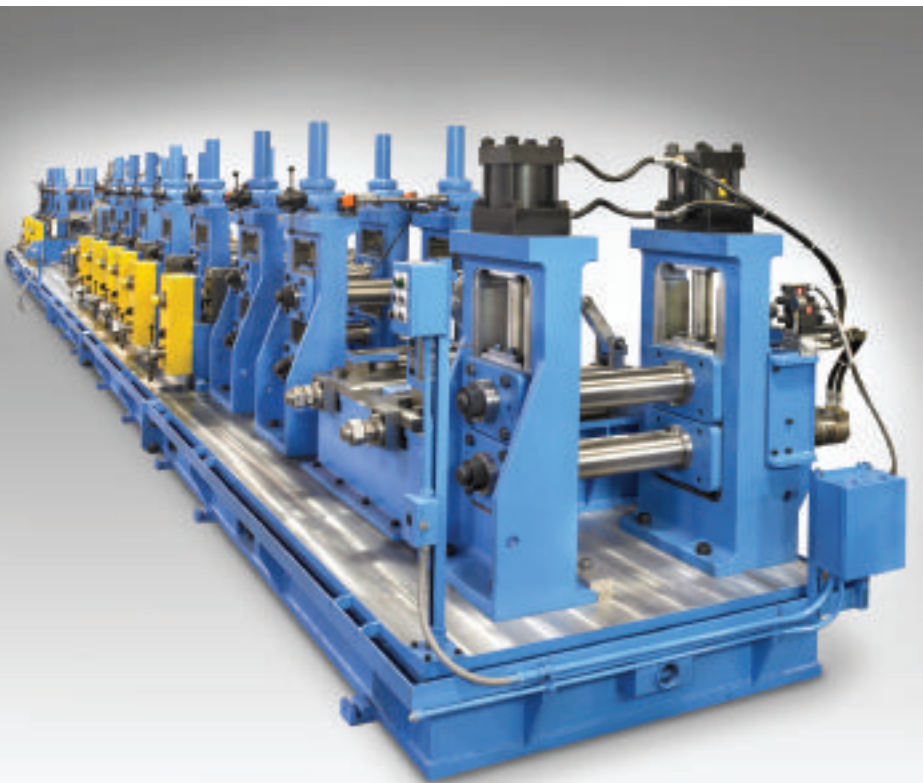
The company has provided the technology to manufacture products such as stainless steel hypodermic needles, MI communication cables, flexible tubular products, hi-strength welded and roll-formed shapes and large diameter API pipe.

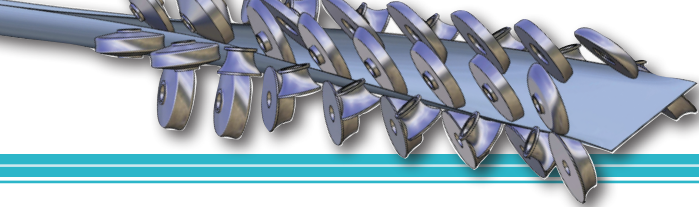
In addition to complete production systems, T&H Lemont provides a variety of components and services to the tube, pipe and rollforming industries. Services include tube and pipe roll design and manufacturing, mill alignment and operational consulting.

Components offered by T&H Lemont include welders, cut-offs, entry equipment, accumulators, pre-punch, post-punch, seam orientation stands, weld boxes, edge conditioner, bead scarfing systems, straightening systems, single point adjustment systems, dedimplers, blades, jaws, roll shafts and other related equipment.

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Expertise in tube rollforming, joining and assembly

Taylor-Winfield Corporation, USA, specialises in the automation of applications involving material joining, forming and assembly, coil joining and induction heating. The company offers a wide range of equipment including coil joining equipment, automated assembly lines, metal forming equipment, and work handling systems.

Rollforming lines are used to convert incoming flat strip into a variety of shapes and sections and in a wide range of thicknesses, widths, lengths and materials. The required shape is obtained by passing the incoming material through a series of driven profiled rolls. The rolls are set in pairs (upper and lower) and gradually form the material until the final shape/cross section is obtained.

Prior to the actual forming operations, Taylor-Winfield lines can also punch holes, notch, emboss and knurl the incoming strip as necessary for assembly/fixing purposes.

 Taylor-Winfield offers expertise in rollforming lines

The punched holes can be supplied in any pattern and in a variety of shapes.

Taylor-Winfield rollforming lines are used to manufacture a vast range of products for many diverse industries including construction, automotive, electrical, security, both white and brown goods, industrial storage, transport, and office furniture.

Features of Taylor-Winfield lines include automatic entry coil loading and feed up, multiple pre-piercing and shearing with PLC and PC control, high speed flying cut-offs, cassette section roll change, auto changeover, and offline punch/welding systems. Automatic stacking with weight, wrap and bar coding facilities can also be provided for finished products.


Taylor-Winfield's tube mills operate with precut blanks fed into the machine and formed into tubular shapes. The two edges are then seamed together using welding or mechanical lockseaming. The company can process a wide range of diameters, lengths and thicknesses in round, oval, asymmetrical and tapered tubes.

Taylor-Winfield offers two platforms of machines. The high precision platform forms the blank around a mandrel and holds the blank in place while a rollforming carriage/weld head traverses across the top and forms a lockseam/weld.

The company's highly flexible platform for lockseaming forms the blank in a rolling unit, feeds the rolled blank into a pulldown press and feeds the pre-edged part into seaming rolls. With automatic changeover, this machine is capable of running alternating diameter parts.

The highly flexible platform for welding forms the blank in a rolling unit and feeds the blank onto a z-bar. In resistance seam welding, the rolled blank is then



 Tubes can be produced on Taylor-Winfield tube mills, which take-in precut blanks that have their two edges seamed together using welding or mechanical lockseaming

passed through hourglass rolls and welded in transit. For plasma, MIG, TIG and laser welding, the edges are clamped together and the joint welded as the part remains stationary.

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Rollforming boost with roll design expertise

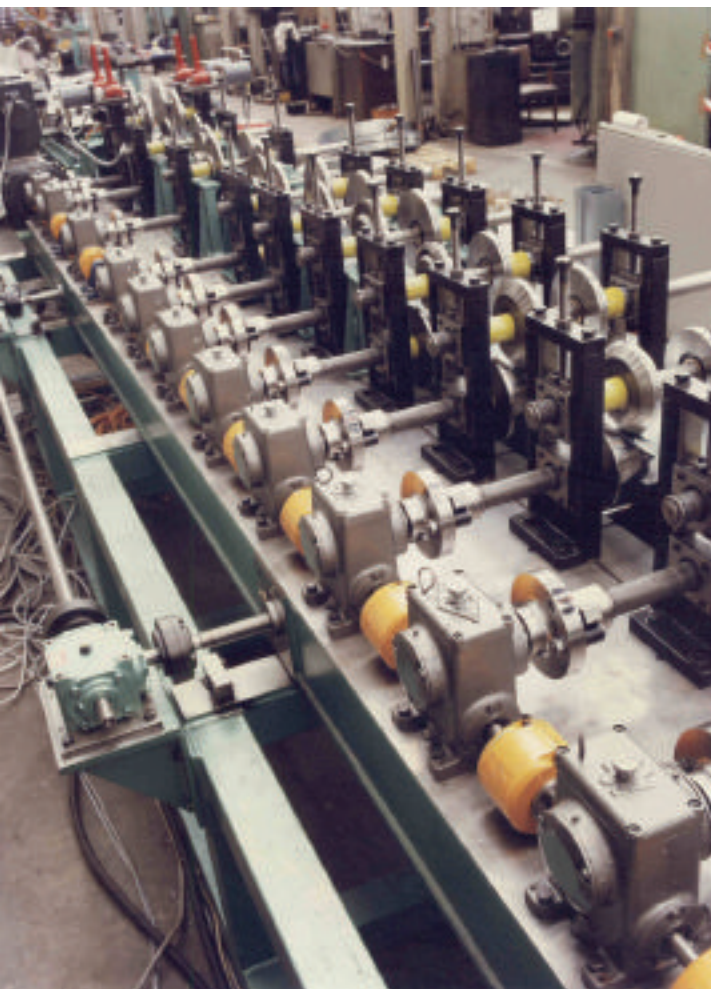
Somass, Germany, provides a comprehensive roll design service to optimize rollforming and assist manufacturers of welded tube. This capability is aimed at those that design and produce welded round and shaped tubes, together with open and closed sections.

In the area of welded tubes, the company offers design experience to assist manufacture of products from extremely thin-walled tubes to thick walled pipeline.

Somass can support the development of rollforming strategies, definition of machine layouts and also verification of rollform tools. All delivered designs from the company are proofed and verified by Finite Element Analysis (FEA).

Certified according to DIN EN ISO 9001:2000, the company provides complete documentation for all work.

Somass – Germany
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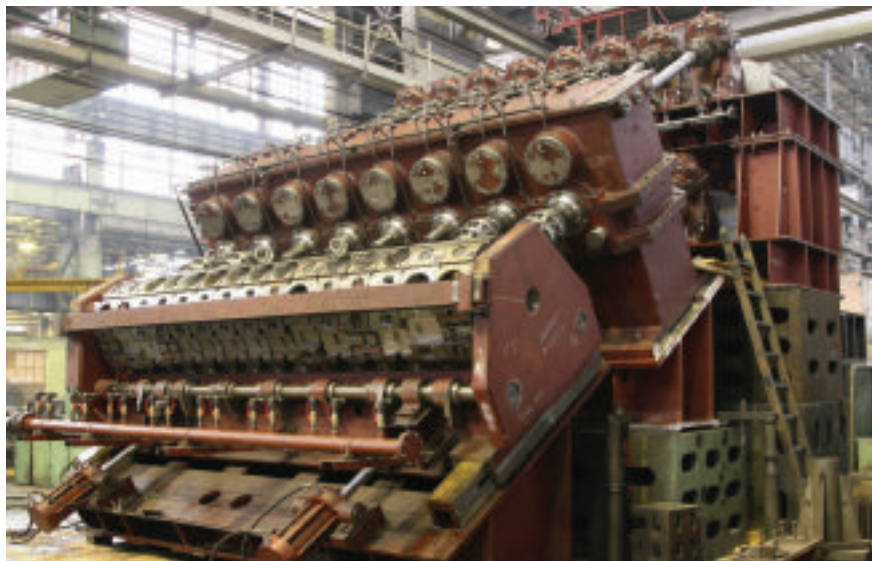
BUILT IN ITALY

Leading projects for EZTM tube and pipe rolling mills

Electrostal Heavy Engineering Works (EZTM) JSC, Russia, is involved in the design and manufacture of high quality rolling, blast furnace and mineral

processing equipment and spare parts. All of the company's equipment is certified according to ISO 9001:2000 from the British Standards Institute.

Ⓣ A tube-reducing mill from EZTM



EZTM has undertaken a range of high profile projects including the reconstruction of an electric tube-welding mill (1020), which is in operation at the Vyksa Metallurgical Plant. Such reconstruction provides a capability for rolling single-joint welded pipes with the diameter of 1,420mm and wall-thickness up to 48mm.

The company has also designed and supplied a nine-stand sizing mill, which was supplied to the Izhora Pipe Plant. The mill is intended for a reconstructed tube rolling plant (140).

A three-high rotary piercing mill, installed on the line at a tube rolling plant (80), has been manufactured and put into service at Seversky Tube Works. The mill can now operate with 156mm diameter sections, as supplied by Seversky Tube Works, instead of wire rod.

A unique piercing mill manufactured by EZTM JSC for Seversky Tube Works has been installed on a line of a tube rolling plant (350) with pilger mill.

The mill – put into service in April of 2007 – is intended for piercing F-sections with the diameter of 360-400mm, as produced by Seversky Tube Works.

EZTM JSC is one of the leading designers of cold rolling mills with more than 50 configurations intended for production of tubes from 6-450mm in diameter.

The company has manufactured equipment for reconstruction of a cold rolling mill (32) operating at the Nuclear Fuel Complex (NFC), India.

In addition, EZTM has manufactured three sizing mills, equipment for reconstruction of a tube rolling plant (50-200), 15-stand reducing mill and other equipment for TMK and many other works in Russia and the Ukraine.

EZTM JSC has built an excellent reputation for the design and supply of new machinery, together with the reconstruction of tube plants operating in Russian tube works and abroad.

Electrostal Heavy Engineering Works (EZTM) – Russia
Fax: +7 496 577 7342
Email: eztm@eztm.ru
Website: www.eztm.ru

Linear cage forming on tube mills

Olimpia 80, Italy, is a leading company in the design and production of complete tube mills. Based on substantial experience of tube requirements, the company has developed a new project for the fastest change of forming rolls.

This tube forming system makes use of the latest technology that allows the user to vary the diameter of the produced tube without changing rolls. Olimpia 80's unique compact system consists of 8 sequential stations – 6 operating as breakdowns and 2 operating as fin passes. These stations help achieve a final and almost complete joining of the tube.

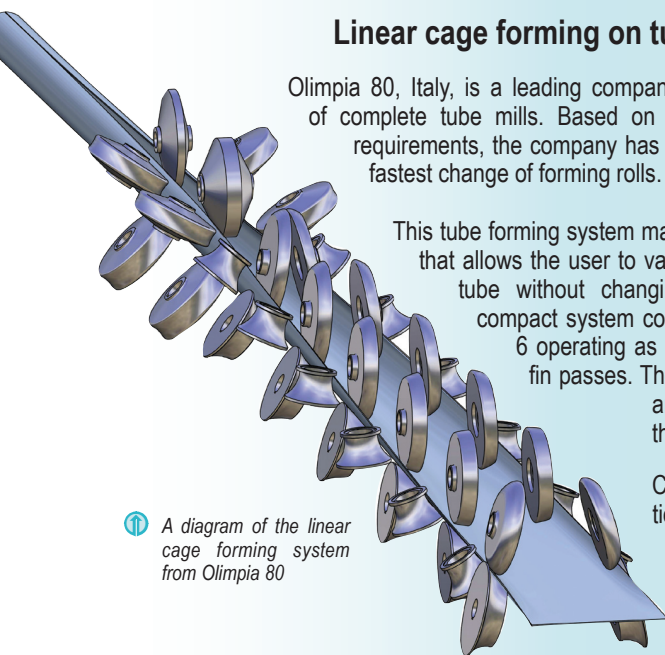
Computerised servomotor operation is used on the 14 independent axes of rolls positioning for each breakdown and the 13 axes of every fin pass. This helps to obtain, in a quick and easy way, an optimal position for the correct tube

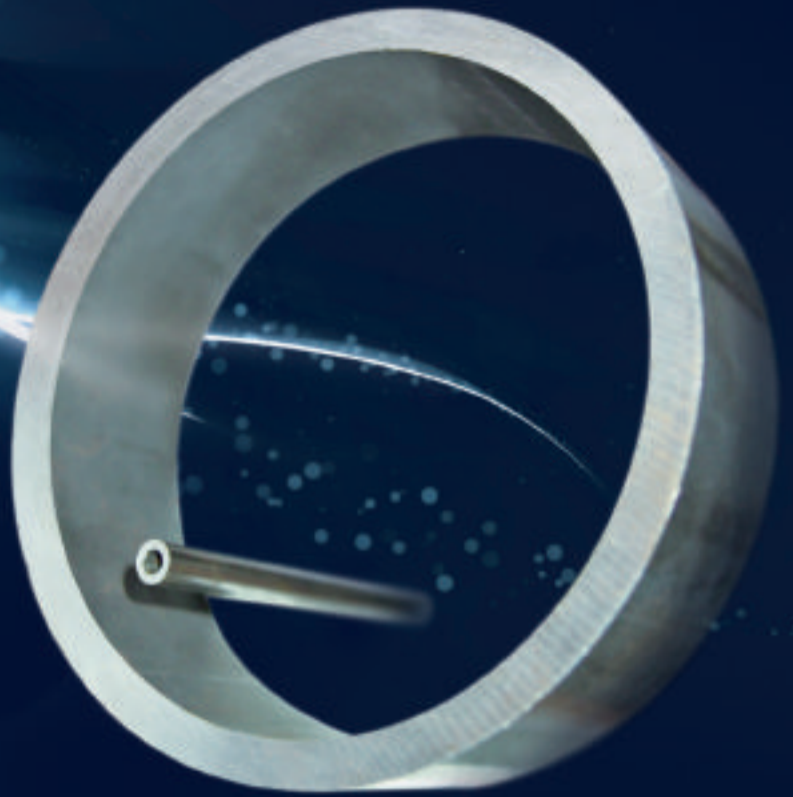
forming. The strip feeding is assured by a system of independent pinch-rolls, mounted on the first 6 stands.

The major advantages of this method are the greatest flexibility, the fastest automatic change of tube size and the extreme reduction of roll costs.

Olimpia 80 Srl – Italy
Fax: +39 0523 864584
Email: olimpia@olimpia80.com • **Website:** www.olimpia80.com

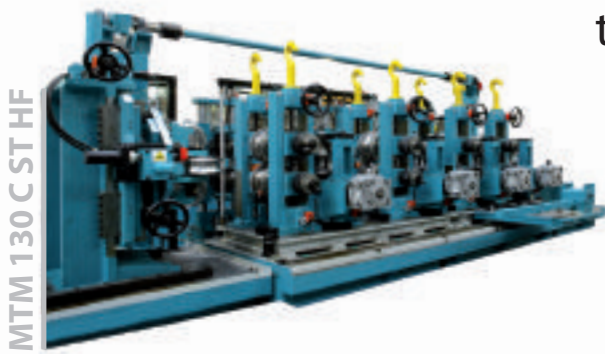
Ⓣ A diagram of the linear cage forming system from Olimpia 80





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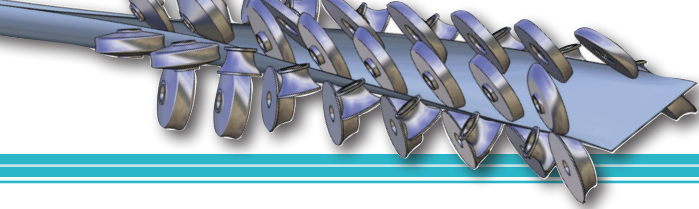
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Fast changeover and reduced downtime with advanced tube mill range

Abbey International, USA, is the manufacturer of a wide range of tube mills, with a size range from Ø 3-26". The company is currently undertaking a number of international projects for industries including oil and gas, automotive, and construction.

The company has recently carried out delivery of a high-speed 3" mill line. The line is capable of producing rounds, rectangles and squares at 600ft/min. This project includes the company's patented CCT quick-change system. The Continuous Cart Transfer (CCT) is a driven cart system designed to receive sub-plated mill sections during semi-automated changeover of the mill. It eliminates the use of an overhead crane for sub-base exchange.

With the CCT system, very fast changeover times are possible, thus substantially reducing mill downtime. The payback on this system is extremely quick especially when frequent tool changes are required.

Abbey has also received two orders for special automotive mills for producing stainless steel tubing. The first is for a 3.5" mill line that will be delivered in the next few months, with the second a 6" mill line set for installation later this year.

Both of these orders incorporate Abbey's Transition Beam Forming Section (TBS®), a patented system that provides an expanded

capability of forming, creating high quality pipe over a wide range of sizes. The 3.5" mill line will also feature a special compression forming system.

The company will also deliver a special coil tubing mill for use in the oil industry. The coil tubing mill will produce high strength tubing for oil wells. With this mill, Abbey International has incorporated numerous special features for making precision coil tubing and linepipe for API.

Abbey will also provide a heavy wall 5" mill line for the structural industry, which incorporates high speed and quick-change capabilities. This mill line is able to produce rounds, squares, and rectangles at 400ft/min. Another order won by the company is a heavy 5" mill for the oil industry.

Abbey International's largest project is a 26" mill line for structural columns and line pipe for API. Claimed to be one of the most advanced large ERW tube mills available, this mill line is capable of producing squares of 550mm x 550mm. It was designed to operate with a reduced crew using high-level automation. It also incorporates advanced quick tooling change features including the TBS forming and cassette roll change systems.

Abbey International – USA
Fax: +1 419 874 8200
Email: sales@abbeyintl.com
Website: www.abbeyintl.com

 Abbey's 3" mill line with CCT quick-change system




Infrared thermometer for rolling-mill processes

Sitel Control Srl, Italy, is a specialist in the design and manufacture of infrared optical pyrometers for the control and supervision of industrial processes. Certified according to UNI EN ISO 9001:2000, the company provides the industry with optical thermometers produced with the most update-to-date microprocessor technologies.

A highlight of the company's range is the Starline model of infrared thermometric system, which enables a complete temperature profile with a single instrument.



 The Starline excels in monitoring temperatures on rolling mills

The system features powerful software functions that provide a complete thermal map or peak temperature measurement on a moving target by means of data coming from the 32 elements sensor array.

The temperature range extends from 550°C to 1,800°C, with a correction capability where there is a change in material emissivity. Starline's design has been engineered to avoid problems due to vibration, friction and ageing. As with all Sitel's instruments, the Starline has a solid design and compact protective case that ensures optimum accuracy and reliability.

The anticorrosional aluminium case includes a cooling and air-purge system, enabling the instrument to be installed in very hot and dusty hostile industrial environments. The microprocessor-based electronic provides both digital and analogue outputs for connections to any type of control system.

Starline can also be connected to a common PC, where a Windows®-based software can be installed for a real-time profile measurement, data recording and thermal map visualization.

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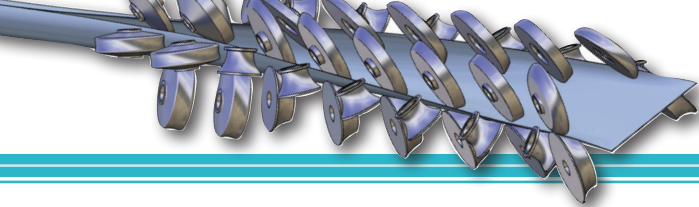
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GROUP



Growing range of pipe and profile lines

Elmaksan, Turkey, is the manufacturer of an extensive machinery range including pipe and profile lines, cut-to-length lines and other equipment. Over 80 per cent of Elmaksan's total volume of production is exported abroad, and in the region of 200 lines have been sold to 40 different countries.

Based on over 25 years of experience, the Elmaksan machinery range includes pipe and profile lines, pipe and profile forming rolls, cut-to-length lines (with

or without loop), slitting lines, and multi blanking lines.

The company supplies slitting knives and spacers, open profile lines, trapeze machines, automatic packing machines, levelers, rotary shears, and multiple cutting units. Also in the Elmaksan range is coil process equipment and associated spare parts. Each of these lines can be modified to meet specific production requirements.

⚙️ Elmaksan offers pipe and profile lines and other machinery



Elmaksan operate two large facilities, one located in Istanbul (5,000m²) and another in Kocaeli (22,000m²), staffed by over 150 people. With a constantly expanding product range, the company's machinery is designed, manufactured and supplied according to the highest quality standards.

Elmaksan – Turkey
Fax: +90 216 561 3307
Email: info@elmaksan.net
Website: www.elmaksan.net

New model Yoder reducing mill destined for Europe

Yoder Manufacturing, USA, a member of the Formtek Group, is a leading manufacturer of rollforming and tube mill systems. The company has developed a new version of its W-10S/W-15S reducing tube mill system for small diameter appliance refrigeration and automotive fuel line tubing.

The Yoder W-10S/W-15S can produce 1/2" diameter tube and reduce a range of finish diameters and wall thicknesses down to 3/16". The reducing section is independently adjustable, for 3/16" to 1/2" finish diameters.

The versatility of this reducing configuration, recently updated with full digital controls, decreases changeover time and improves setup repeatability. Additional mill upgrades enable sizing of tubes up to 1" diameter, along with its reducing capabilities.

This technology is now available with CE certification for use in Europe.

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Extensive range of tube mills and rollforming equipment

Rafter Equipment Corp, USA, is the manufacturer of an extensive range of tube and pipe mill systems and rollforming equipment.

With over 90 years' experience, the company's range includes tube mill systems, cutoff devices, double reshaping turkshead, single turkshead tube straightener, tandem OD bead trimmer/winder, side idler stand and RT roll stand, and strip entry/edge scarfing table. Additional services offered include rebuilding and upgrading of tube mills, roll forming equipment and cutoff presses.

The company's tube mills feature computer-controlled functions for dependable and efficient operation. The mills offer simplicity in design for quick tooling changeovers and user-friendly interface. The tube mills are available with high frequency (HF), TIG and laser welding systems.

The Rafter manufacturing concept is based on rafted machines, which involves stands mounted on rafts for quick and easy changeover from one set to another set of roll tooling. This low cost and efficient concept is widely accepted by tube producing companies in the United States and around the world.

The company has recently installed a new CNC turning centre that is capable of turning a maximum of 20" diameter by 80" long shaft. The purchase was a direct result of increasing customer demands for tighter tolerance components on larger and heavier walled tube and pipe mills.

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Website: www.rafterequipment.com



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Tube mill for production of stainless steel H.F. welded exhaust tubes - max. production speed 120 m/min

TUBE MILLS

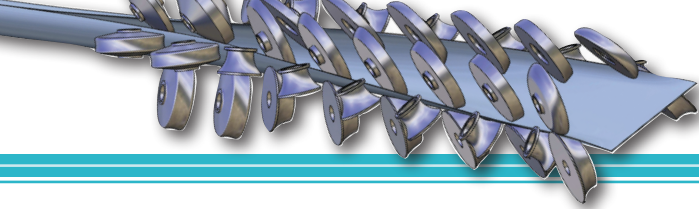


Stainless steel tube mill with TIG-PLASMA-TIG welding system for production of thick wall tubes bead rolled (33.7 mm O.D. x 4.6 mm wall)

OLIMPIA 80 s.r.l. Engineering

ZONA INDUSTRIALE: Cà Verde - 29011 BORGONOVO V.T. (PC) - Italy - Tel. +39 0523 86.26.14 / 86.28.80 - Fax +39 0523 86.45.84

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Latest generation of spiral pipe mills

Ameron International, one of the USA's leading pipe manufacturers, has reached an agreement with PRD-Cagil for the supply of a new generation PRD-Cagil spiral pipe mill as part of its upgrade schedule. PRD-Cagil is a leader in large diameter pipe production technology and provides pipe manufacturing, coating and lining systems worldwide.

The SWP machine incorporates PRD-Cagil's latest (3rd generation) metal joiner, which is equipped with an edge-milling

machine that reduces coil ends joining time to 15 minutes. The SWP machine incorporates an FRS 5001 series of new generation forming unit that will produce pipes from 24-144" in diameter, lengths of 6-18m, and wall thickness up to 25mm.

As part of its upgrade plan, Ameron International has also ordered an edge milling machine and a new forming unit. The EMM will be integrated into one of Ameron's previously ordered PRD SWP mills, and the new forming unit will replace the forming unit of an old SWP mill.

PRD-Cagil has also recently delivered an offline upgradeable SWP machine to Erciyas Pipe, Turkey. The machine is designed to accommodate X100 grade steel and provides 360 tons of forming force

for this new generation forming unit. With a double main drive, the SWP machine has an uncoiler with pre-tensioning system to eliminate the springback effect for coils that have X80 grade or more.

The company has also commissioned a state-of-the-art offline upgradeable spiral pipe manufacturing facility for Gregorian International, Venezuela. Set for API rated pipe manufacture, the mill is equipped with a PRD-Cagil FRS 5001 series new generation forming unit.

The system will start online production and will be upgraded to offline in the future. Together with the SWP mill, the order included a hydrostatic pipe tester, end beveling machines, x-ray units and material handling system.

PRD-Cagil now supplies new process reporting software for its SWP Mills. This software enables the user to monitor online process data as well as achieve a realized process for a certain period.

PRD-Cagil – USA
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PRD-Cagil's new generation spiral pipe mill (SWP) for large diameter pipe



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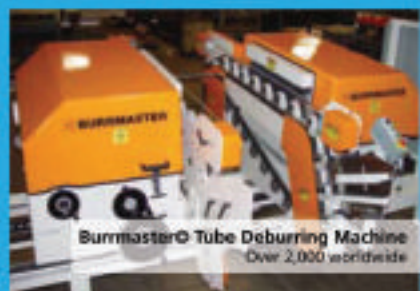
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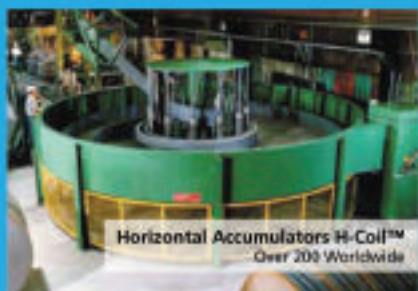
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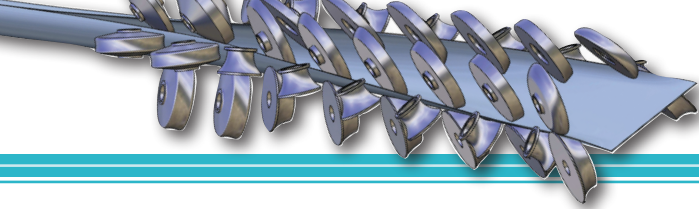
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From old to new: substantial investment in seamless steel tube mill

Valcovna Trub TZ, one of the largest Czech producers of thick-walled seamless steel tube and pipe, is reaching completion of an extensive multi-million dollar investment programme.

Owned by Trinecke Zelezarny, the company is currently in the stages of reconstructing and modernizing its whole plant. At the heart of this plant is a big Mannesmann production line that produces seamless steel tube and pipe with a diameter from 168mm to 406mm.

 Currently under construction, the new rotary hearth furnace will be used for heating-up the material



Back in 2005, the company purchased new technology from SMS Meer GmbH with the aim of upgrading its facilities. The team assembled to carry out the project for Valcovna Trub consists of Trinecky Inzenyrink, BKB Metal as, D5 as, and Enviform sro.

As part of the investment, the Ignis furnace was relocated in the 2nd quarter of 2007. This was followed by the development of the machining centre with metallurgical tools, and building and adjustment of braced areas in the mill line zone. In October 2007, work began on the 'heart' of the whole project – the construction of the rotary hearth furnace and walking beam furnace.

Further developments have taken place this year on installation of other technologies. During May and June, the final stages were due to be carried out, including installation of a cutoff for the mill line. The finishing mills will be installed at the

end of July, when the entire mill line will be finalized and completely tested. 'Rough' operation of the big Mannesmann mill line is due to start in October 2008.

The rolling mill of the big Mannesmann was built during 1917-1918 and is one of the world's oldest rolling mills with well-maintained integral parts. Over the years the line has been continuously modernized and adjusted, with only some original equipment still in operation (piercing mill, pilger mill, hot cutting mill and incline furnace). During its lifetime, the rolling mill has processed around 6 million tons of steel.

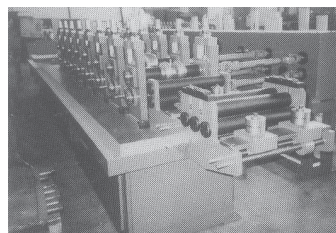
Mr Jaroslav Sarovsky, CEO and director of Valcovna Trub, explains the reasons for investment, "The main asset, besides increasing the total capacity of the plant, is improvement of surface quality and accuracy of pipes, extending the assortment of steel grades and length of pipes. Volume of the non-destructive metrology will be increased as well as possibilities of its usage."

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TUBE CUTTING LINES



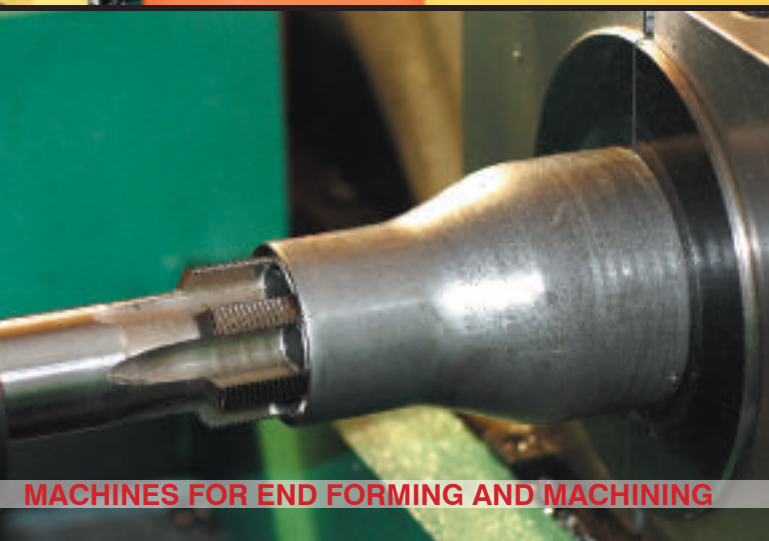
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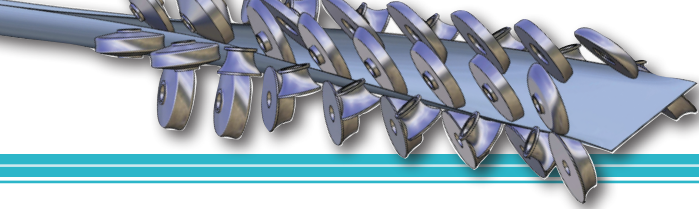


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www.pedrazzoli-ibp.com



DEBURRING SYSTEMS



Special strip accumulator for high strength rollform line

Kent Corporation, USA, has delivered two R229 Floop strip accumulators to a leading manufacturer of seating components. The special Floop was designed to run strip with material yield strengths in excess of 100,000psi. The material cannot be

damaged in any way because of the tight tolerance of the final rollformed section.

The Floop allows the material to be run without causing damage by implementing the unique 'free loop' design along with other

design features. The Floop also utilises a patented take-out arbour that virtually eliminates the pressure on the edge of the strip caused in typical take-out devices.

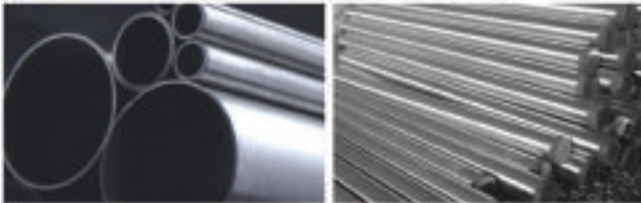
These special accumulators also integrate a 'line-synch' method of operation that allows the user to run the Floop 'empty' – in synch with the line – until there is certainty that the material being processed meets the stringent specifications. Once the line is producing good parts, the Floop is allowed to accumulate the required material to make an end weld. This unique feature drastically reduces scrap and increases productivity.

Kent Corporation has successfully dealt with unique problems in handling strip in its 37-year history. This success story comes on the heels of another application where the customer needed to handle a coated product that was 0.5mm thick x 25mm wide at speeds in excess of 80 MPM. This application involved similar design features, which allowed the customer to run a very difficult processing line non-stop.

 The R229 Floop strip accumulator from Kent Corp



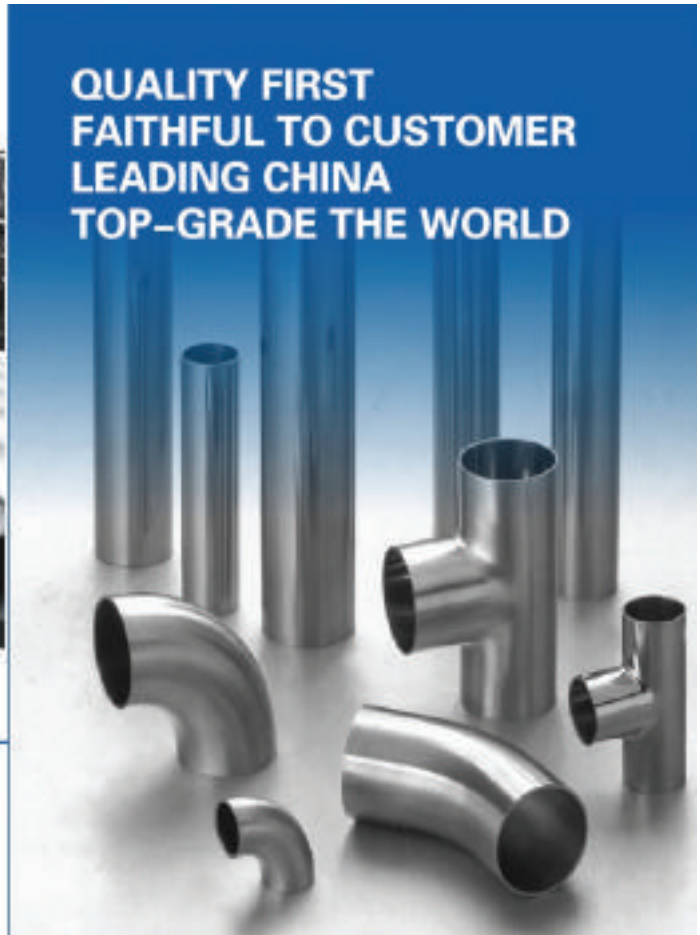
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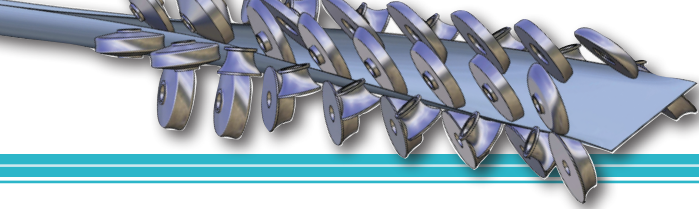
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Effective document management in a tube production environment

Vallourec & Mannesman Oil & Gas, UK, has recently implemented an effective solution to its document and email management problems to ensure first-rate referencing of all its pipe products. Managing the flow of information in a noisy, hot and demanding production environment can be extremely difficult. Added problems can arise in the process of ensuring the system is up-to-date and accurate.

⚡ *Managing information flow can often be difficult in the noisy and demanding production environment of a tube manufacturing facility*



VMOG UK is involved in the high volume production of pipes for the oil and gas industry, using a complex range of tube and pipe machinery. The company needs to record and control all of the documentation concerning the pipes and their joints for many years in case of the failure of a critical supply line.

With two offices in the UK, electronic information was being printed out, handed around, scanned and then stored again in an electronic system. All staff concerned relied upon paper filing systems to ensure that records were up-to-date and reliable.

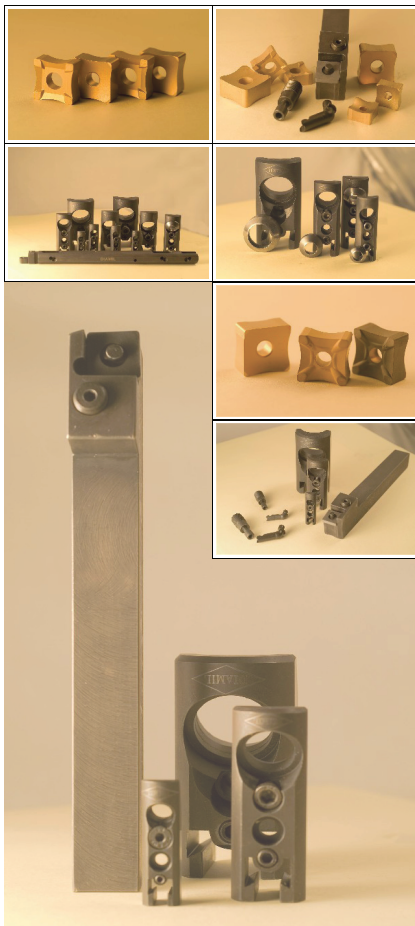
To find an effective solution, the company took on the services of Sysnet, a leading provider of innovative solutions for information management and a Microsoft Gold certified partner. Sysnet designed a flexible and fully integrated solution for

VMOG UK that captured all information into a single, auditable and secure storage system.

VMOG UK now has a single, unified means of reviewing the entire history of an order with one click. The system integrates scanners, back-end ERP (enterprise resource planning) systems, user's email accounts and other sources of data. This ensures that the company can use a single, unified means of reviewing the entire history of an order with one click.

This solution makes the company's account managers, production staff and schedulers more efficient and cuts down hugely on the amount of paper being used to manage the process. It also saves costs when it comes to using the postal service to send paperwork.

The document management system for VMOG is based around Microsoft Office SharePoint Portal 007 server. In combination with Microsoft Office InfoPath 2007, Microsoft Exchange 2007 and Microsoft Office Outlook 2007, the entire system seamlessly captures all paperwork, emails and other information relating to projects.



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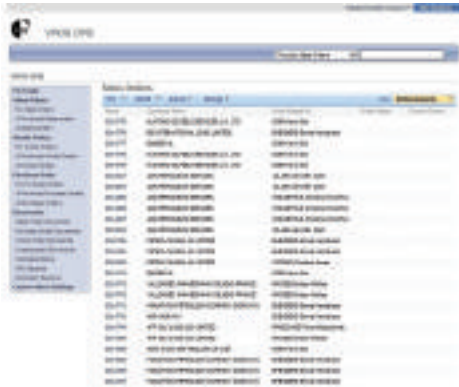
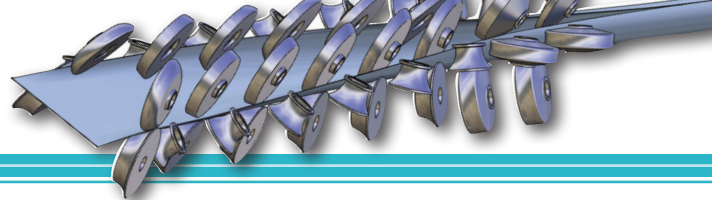
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Tube & Pipe Mills and Rollforming Lines



 The Sysnet DMS enables the comprehensive tracking and delivery of all pipe orders

The company's production system is based on a mainframe and controls the movement of pipes between the production plants and the management of resources. Information can be supplied for a wider audience in the Adobe Acrobat format. Previously these were emailed to an individual who had to open each one and forward it to the appropriate account manager. Now the ERP system emails the DMS system, which stores and notifies those concerned.

The busy account manager's life has been made much easier by a customisable

display that focuses the DMS on their orders and the latest results. They are able to track current orders including all the incoming and outgoing documents, orders, and correspondence. With the click of one button, it is possible to get instant overview of the order status.

In many business processes there is no way to escape the flexibility and portability of a piece of paper. Delivery notes are particularly important in the processes used by VMOG UK. Previously, delivery notes would be handed to the recipient who would make up to five copies of the document which would then be sent to various departments for information.

Now, the recipient scans the delivery note, emailing it automatically to the document management system (DMS). The DMS, based on the order number, is designed to notify the correct person about the order and automatically sends out notification emails.

One of the most important features of the DMS system is its excellent search capability. This is based on Microsoft's Office SharePoint Server search technology. In fractions of a second, the full-text search

capability sifts through thousands of documents looking for the phrase or words searched for. A key productivity benefit of the search feature is the ability of the end users to save the search as an RSS feed. When new documents arrive which meet the criteria, the RSS feed is automatically updated. The users can verify in either Internet Explorer or Outlook 2007 that there are new documents for their attention.

For VMOG UK this is a major step forward as critical changes in the production of the pipes would take hours or sometimes days to reach the production facility. The DMS removes these delays without anyone changing working practices. The solution is built entirely on Microsoft Office 2007 and Exchange 2007 and utilises the latest collaboration and web technologies.

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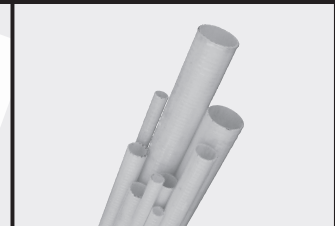
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New strategies for wall thickness measurement in the hot seamless tube production plant

Holger Gurski-Schramm, Ingenieurbüro Gurski-Schramm & Partner, Germany
and Dr Marc Choquet, Tecnar Automation Ltee, Canada

1. Introduction

The competitive nature of the current world economy has placed new emphasis on productivity, quality control and energy consumption of production facilities. Market demands have placed added pressure on manufacturers to better control production and minimize fabrication and rejection of out-of-specifications products.

In particular, the tube steel industry has felt such market pressure. Production efficiency of high quality product such as mechanical tubing has been constantly increasing in the past few years. Low volume productions per batch have also increased the demands on production teams to rapidly achieve final specifications of products with low numbers of 'test' units.

Sensors have been an integral part of this process. Sensors placed on the production line allow the plant operator to control the production parameters as well as quickly react to unexpected situations. A large part of the increase in productivity is the result of an extensive use of sensors.

Mechanical tubes are used in applications such as hydraulic cylinders and power transmission components (gears and bearing), which place strict controls on mechanical dimension. Wall thickness sensors have been used routinely to control the production of mechanical tube. Until recently, however, the availability for online wall thickness sensors has been limited.

Penetrating radiation (γ -rays) techniques have been developed and used for thickness gauging of tubes. However, such techniques have limitations on the location where they can be installed. Penetrating radiation gauges cannot measure wall thickness with a mandrel inside or adapt easily to rapid side-motion of the tube. In addition, there is a limit to the range of wall thickness and outer diameter sizes that a penetration radiation system can measure.

Laser-ultrasonics, which combines the precision of ultrasonics with the flexibility of optical systems, has provided an advanced method

to measure online wall thickness under plant conditions [1]. With laser-ultrasonics, the presence of a mandrel does not affect the wall thickness measurement. In addition, since the laser-generated probing pulse is always launched in a direction normal to the surface, large tube motion cannot be tolerated without affecting the accuracy of the wall thickness measurement.

Finally, the size of the outer diameter of a tube does not impose any limitations on the ability to measure. The flexibility of laser-ultrasonic allows for wall thickness measurement at the output of processing tools. It therefore permits 'real-time' data for automated feedback control on location, which was not possible in the past.

2. Online ultrasonic wall thickness measurement with ultrasonics

Standard ultrasonics inspection is a renowned non-destructive technique that provides several parameters of interest for materials and process control. Ultrasonic wall thickness gauges are used in several industries, such as aircraft inspection and metallic thickness gauging, because it provides high accuracy measurements. Minute changes in wall thickness are easily detected and quantitatively measured.

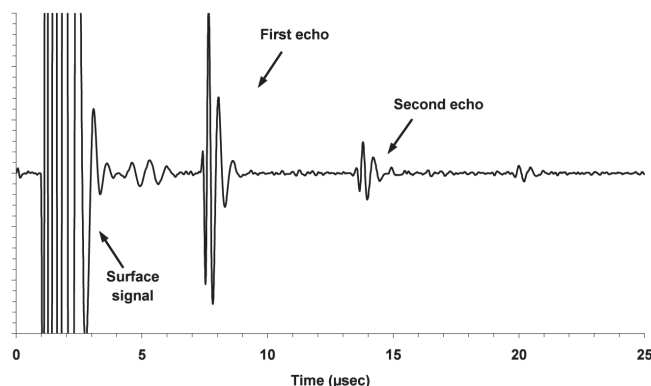
Conventional ultrasonics (UT) utilise a piezoelectric transducer (PZT) to generate and detect the sound waves used to probe the material. A PZT, stimulated with an appropriate electrical signal, will impact the outer surface of the tube to which it is attached.

The resulting pulse (ultrasonic pulse) will then travel to the inner wall of the tube, where it will be reflected back towards the outer surface. The reflected signal is called the echo. Measurement of the travel time of the probing pulse directly provides the thickness of the tube, based on the velocity of sound in the alloy of the tube (which is a physical property of the alloy).

Conventional UT requires a good mechanical contact between the PZT and the inspected tube to be able to have a measurable signal. Such a method is therefore difficult and often impossible to use when the tube is at high temperature or moving rapidly, such as encountered in a steel mill production line. Commercial UT systems are available for 'offline' tube dimensioning, but require a wait-period for product cooling, which may take several hours. Non-contact ultrasonic sensors are needed for inspection of high-temperature moving materials.

Conventional UT also requires a strict orientation of the PZT with respect to the surface of the material, in order to get a strong signal into the bulk of the material and achieve true wall thickness. This involves measurement of the travel-time solely in the direction normal to the surface. Angular tolerance for proper operation is only about a few degrees. Any deviation from the angular tolerance results in a rapid decrease of signal amplitude. Strict angular

Figure 1: Typical on-line laser-ultrasonic signal from hot tube (WT=15mm)



orientation with conventional ultrasonics is very difficult to sustain on moving or bouncing materials, such as tubes under production line conditions.

3. Online ultrasonic wall thickness measurement with laser-ultrasonics

The above limitations are eliminated by laser-ultrasonics. In laser-ultrasonics, laser light is used for generation and detection, at a distance, of the ultrasonic pulse. Since no mechanical contact is made between the sensor and the tube, the temperature of the tube does not affect the performance of the sensor. Furthermore, in laser-ultrasonics the source of ultrasonic generation is located directly on the surface of the tube. The detection of ultrasounds is made by monitoring the motion of the same surface at the same location.

In effect, the surface of the tube becomes the sensor in laser-ultrasonics. It can be shown that the orientation of the laser light with respect to the normal direction to the surface of the material does not affect the generation and detection of the ultrasonic signal. Hence, no particular orientation between the laser-ultrasonic sensor and the surface of the inspected material is needed. This allows laser-ultrasonic inspection to be insensitive to the bouncing of the tube.

Laser-ultrasonics is a combination of two separate laser methods: laser generation of ultrasounds and laser detection of ultrasounds.

Laser generation of ultrasounds is a technique that has been in use since the early development of pulsed lasers^[2]. Efficient laser generation of ultrasounds on metal is performed by applying a strong laser pulse onto the surface of the material, which causes ablation or vaporization of a small quantity of the material at the point of impact of the laser. Following the ablation, a recoil force is produced, which is the source of a compression ultrasonic pulse.

The compression pulse is always launched in a direction normal to the free surface of the tube (ie the surface of impact of the laser beam) independently of the angle of incidence of the laser light. Hence, travel-time of the ultrasonic pulse is always recorded in the direction normal to the surface, giving the correct wall thickness.

It should be recognised that for high temperature steel, the blown-off material of the ablation is the oxide covering the surface. The oxide is rapidly regenerated at these elevated temperatures and therefore no visible mark is seen once the material is cooled to an ambient temperature.

Laser detection of ultrasound is based on frequency-demodulation by an optical interferometer of the laser light reflected or backscattered from the surface of the material^[3]. A laser light is focused on (or near) the point of impact of the generation laser beam on the surface of the material. Any surface motion at the point of impact of the detection laser is recorded in the reflected light as an optical frequency variation (slight change of 'colour'). The ultrasonic surface displacement is therefore 'encoded' in the laser light, called the signal beam.

After 'extraction' from the signal beam, the resulting information is identical to a conventional ultrasonics waveform, often called A-scan in non-destructive inspection, as shown in figure 1. The

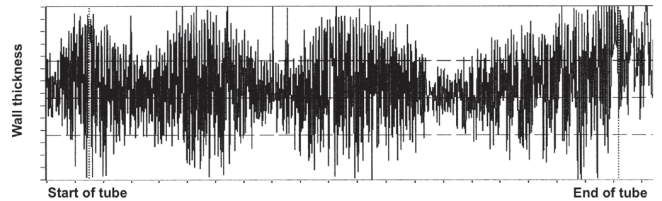


Figure 2: On-line wall thickness measurement using LUT gauge

signal contains a strong initial pulse, called the 'surface signal', corresponding to the initial impact of the generation laser beam on the surface of the tube, followed by several pulses, which are the echoes resulting from the forward propagation and reflection from the back wall of the initial ultrasonic pulse.

The travel-time of the ultrasonic pulse within the bulk of the tube is obtained by measuring the time between the initial surface impact and the time of arrival of the first echo. Numerical signal enhancement methods are used to get a high accuracy measurement of the travel-time. The values recorded are then scaled with the appropriate velocity of sound for the material of the tube and corrected for thermal expansion.

It should be recognised that since velocity of sound in a material is a function of temperature, the temperature of the tube must also be recorded simultaneously with the measurement of the laser-ultrasonic signal. The LUT gauge makes this simultaneous measurement using an optical pyrometer. The temperature is measured at the same location as the laser-ultrasonic signal. The scaling value, used to convert travel-time to thickness, is adjusted using the temperature measurement and the steel alloy category of the produced tube.

The heart of a laser-ultrasonic system is the optical interferometer. Several optical interferometers are available, each with their own advantages and limitations. Tecnar Automation Ltee (Tecnar) is a world leader in the development and manufacture of laser-ultrasonics equipment, including laser-ultrasonic demodulators. Following developments made at Tecnar, an active interferometer approach has been developed, based on two-wave beam mixing^[4], specifically for online wall thickness measurement of hot tubes in the harsh operation of steel mill.

By taking wall thickness measurement as function of the length of the tube, wall thickness length-profiles are obtained, as shown in the figure below. The 'signature' of the wall thickness length-profile is identical to the length-profile obtained with a conventional UT system for tube, with the exception that the data shown in the figure was obtained online and displayed in real-time.

The shape of the length-profile is used by operators to identify the source of 'out of specifications' production and appropriate correction measures can be taken. The length-profile shown in figure 2 is typical of a tube with large eccentricity. The rapid variation (cycle) of the wall thickness comes from the detection of minimum and maximum wall thicknesses of the tube as it is rotated before the LUT probe.

4. The LUT (laser ultrasonic thickness) gauge

The LUT gauge is the latest implementation of laser-ultrasonic technology for online wall thickness measurement of hot tube. The LUT includes the most advanced laser-ultrasonic technology

currently available. For each tube produced, the LUT provides the wall thickness length-profile (at hot and room temperatures), the temperature length-profile and total length.

When coupled to an outer diameter measurement device, the same system provides the outer diameter length-profile, resulting in full dimensioning of each tube. With a rotating tube or a swiveling probe(s), the LUT gives eccentricity length-profile. This operator can then use this information to make automated feedback correction of the production.

The standard LUT system consists of six units: namely the generation laser unit, the detection laser unit, the detection unit, the control unit, the length measurement device and the inspection probe with a support structure. The LUT generation laser unit consists of high-power short-pulse laser for non-contact generation of ultrasounds.

The laser is a Q-switch Nd:YAG operating at a wavelength of 1064nm (infrared). The laser is based on robust flashlamp technology, the same technology used for laser welding. The firing rate of the laser is currently limited to 100Hz and therefore the LUT can provide up to 100 measurements per second. The laser generation unit is an industrial-grade system with easy access for quick servicing.

The LUT detection laser unit consists of a special frequency-stabilized laser source, uniquely designed for laser-ultrasonic detection. The detection laser is based on flashlamp technology, providing a high-power output that cannot be achieved with other types of lasers. The LUT uses the most powerful detection laser for laser-ultrasonic detection commercially available.

This high-power laser, only manufactured by Tecnar, enables a flexibility to the LUT, which is claimed to be unparalleled by others

Figure 3: LUT probe mounted on fast scanning unit

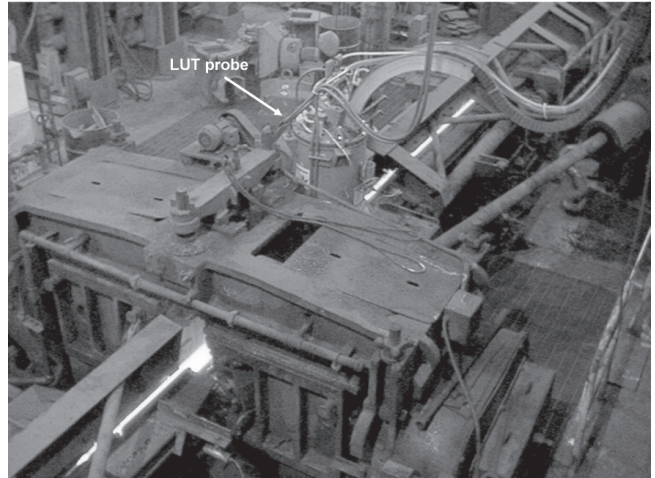
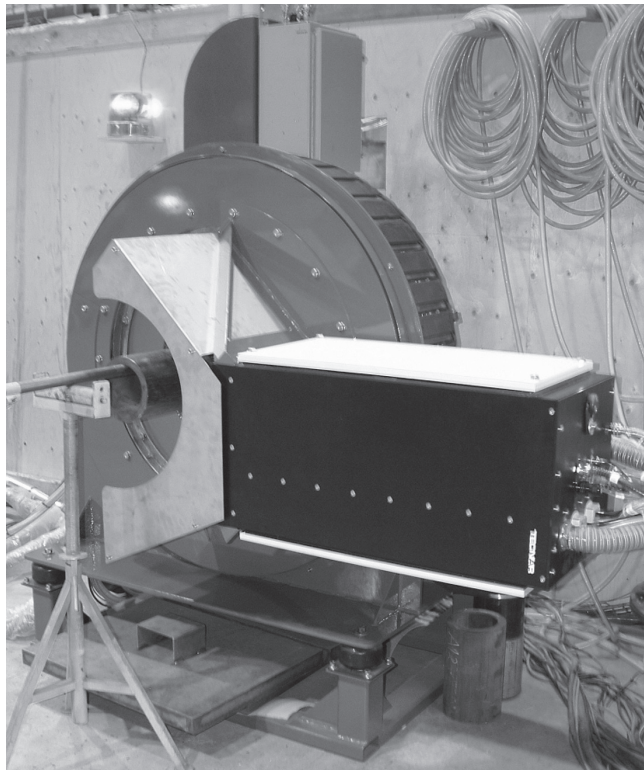


Figure 4: LUT probe at output of rotary sizer

systems. Such high power is needed for the detection of ultrasounds on highly scattering surfaces, such as those encountered for online tubes. As for the generation laser, the firing rate of the detection laser is 100Hz. The detection laser beam is delivered to the inspection probe via optical fibre. The detection laser unit itself is located in a control room, several metres away from the production lines. The detection laser unit is an industrial-grade system with easy access for quick servicing.

The LUT control unit consists of a computer system to control and monitor the LUT. The extensive use of computers in the LUT allows for easy operation of the system by plant personnel. Very little interaction is needed between the LUT and the operator. In particular, no operator interaction is required to setup the system. A remote control unit is used to display the data at a key location on the production line, generally near the control panel of the process being monitored by the LUT.

The LUT detection unit includes the components for processing the laser-ultrasonic signal and the optical pyrometer signal. The detection unit receives the signals from the LUT probe via optical fibres. The detection unit can therefore be located in a controlled area, away from the production line. The distance between the detection unit and the LUT probe can be up to 40 metres.

The measured data is transferred to the LUT control unit via TCP/IP communication. The same data can be automatically transferred to any other location linked to the Ethernet network of the LUT and the plant. The data can therefore be directly interfaced to any available process control.

The LUT inspection probe consists of the optical components, located on the plant floor, near the hot tube, that focuses the various laser beams onto the surface of the tube, and that collects all of the relevant light signals. As the inspection probe may be submitted to high temperature and vibrations, the probe was designed to contain mostly passive optical components and very little electronic components (mainly for laser safety). The optical components are mounted on an automated focusing device that allows the LUT to adjust to variation of tube outer diameter without the interaction of the operator.

The inspection probe is mounted on a support structure to position it at an appropriate location. Several configurations of the support structure are available, from fixed structure to rapid scanning unit.

The choice of the support structure is dependant on the data needed and the location on the plant floor where the LUT is used. Figure 3 shows the probe mounted on a rapid swivelling device. This unit is used when circumference information is required at a location where the tube is not rotating (from the production process).

5. Implementation of LUT gauges


The flexibility of the LUT allows it to be installed at locations not possible with other measuring technology. The first implementation of the LUT was installed directly at the output of a rotary sizer. In this location the main feature regarding the selection of LUT was the capability of the LUT to record data in the presence of large lateral motions (bouncing) of the tube.

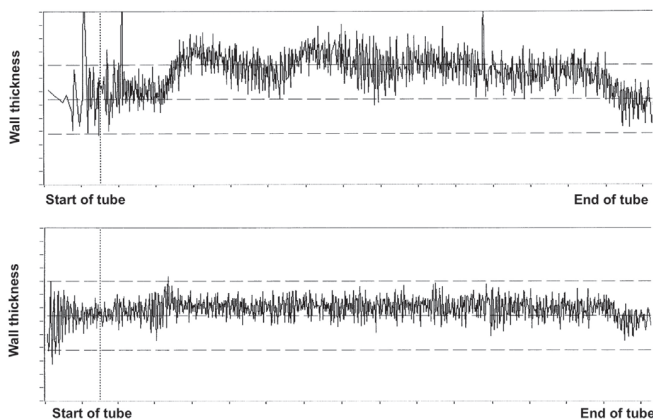
Being at the end of the manufacturing process (immediately before the cooling bed), the length-profile signatures allowed the operator to detect problems anywhere 'upstream' in the production line. LUT data enabled detection of problems such as splitting of the piercing mandrel and velocity imbalance of the rollers of the stretch-reducing mill. As of August 2004, this first implementation of the LUT has already inspected over 2,000,000 tubes.

As an example of the use of the LUT, figure 5 shows a set of online tube length-profiles. The first length-profile (top) shows a case of bulging of the wall thickness in the centre section of the tube. The second (bottom) length-profile shows the tube produced once remedial action had been taken. Without the LUT, the conventional method of cutting the tube endings and manually measuring them would not have detected the extent of the defect in produced tube.

A second location where the LUT has been installed is at the output of a free floating mandrel mill. In this instance, the important feature for selection of the LUT was the capability of the LUT to record data in the presence of a mandrel. As it is near the beginning of the manufacturing process, the length-profile data allowed the operator to detect problems at the piercing but also gave some information for correction of the specifications using the next processing steps. This configuration is currently in use in Japan.

As described earlier, the LUT measures the wall thickness at a known distance from the start (top) of the tube. This distance is given by the length-measuring device included in the LUT. This 'point' measurement allows the operator to determine where, within the length of the tube, the problem has occurred. This can be indicative

 **Figure 5:** Set of wall thickness measurement with LUT for production correction



of the source of the problem. In addition, the 'point' information can be used to locate specific features of the tube. For example, the LUT can provide the length of the plug for a plug mill and provide the possibility of feedback control for cutting of the plug.

6. Conclusion

Laser-ultrasonic technology is the most advanced technology for the online wall thickness measurement of hot tubes. With the LUT, the Laser Ultrasonic Thickness gauge manufactured by Tecnar Automation Ltee, the technology is commercially available for use in harsh environments and has been used on a tube production plant since 2002.

The LUT now allows for possible measurements of real wall thickness during a production flow at different locations, which were not available with previous technologies. Eccentricities of different orders and wall thickness fluctuations over the full length of the tube can be detected with the intention to readjust the process, to produce tubes with better quality and to save material. Thus, the measurement results allow for fast reaction on the process to avoid out of tolerance production.

References

1. Monchalain J-P, 'Progress towards the application of laser-ultrasonics in industry', Review of Progress in Quantitative Nondestructive Evaluation, vol 12, Edited by D O Thompson and D E Chimenti (Plenum Publishing Corporation, 1993), pp 495-506.
2. C B Scruby and L E Drain, 'Laser-Ultrasonics: Techniques and Applications' (Adam Hilger, Bristol, UK, 1990)
3. J-P Monchalain, 'Optical detection of ultrasound', IEEE Trans Sonics, Ultrasonics, Freq Control, UFFC-33, pp 485-499 (1986).
4. A Blouin and J P Monchalain, 'Detection of ultrasonic motion of a scattering surface by two-wave-mixing in a photorefractive GaAs crystal', Applied Physics Letters, 65, 932-934, (1994).

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