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INTERNATIONAL



The trade magazine for tube and pipe products

January 2016



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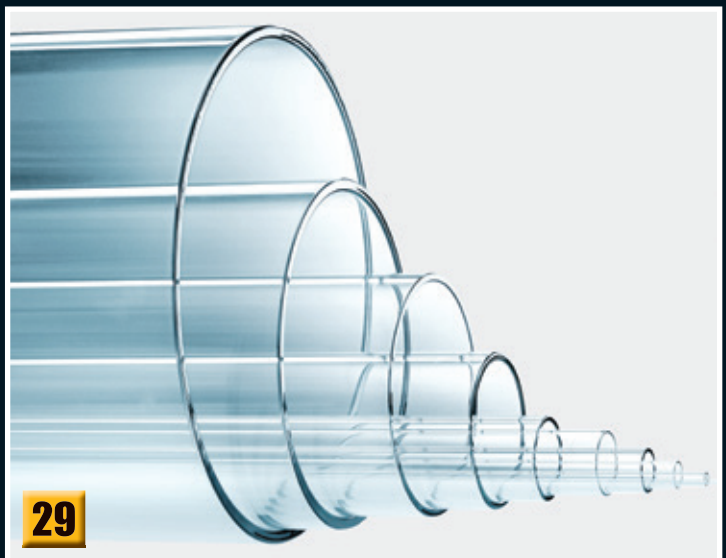
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Contents

January 2016

- 6** Business & Market News
- 22** Products & Developments
- 44** Tube Düsseldorf 2016 preview
- 46** Steel tubes & pipe
- 53** Pipe rehabilitation & repair
- 57** Spotlight on the future of the world's nuclear power industry
An expert commentary from Charles Ferreira, business development manager, and Kris Narasimhan, nuclear products manager, Fine Tubes and Superior Tube
- 59** Editorial Index
- 60** Advertisers Index



Tube Products

INTERNATIONAL

The trade magazine for tube and pipe products



The January issue

Welcome to the latest issue of Tube Products INTERNATIONAL. We have features on steel tubes & pipes and pipe rehabilitation & repair as well as a fascinating insight into the future of the world's nuclear power industry from Charles Ferreira and Kris Narasimhan from Fine Tubes and Superior Tube.

I recently returned from an impressive Stainless Steel World show in Maastricht. Many of the people that I met at the show said it was a tough time for the oil & gas industry at the moment as well as, of course, the steel industry. However, I was heartened by the optimism and innovation that I saw there and the general message was that these times had been seen before and that things would become stable again soon. It sounds simple but it's true that – even if there is a slowdown – the world always needs tubes and pipes to move resources around the globe.

Next issue we are excited to present our Tube Düsseldorf show special. I was speaking to the organisers from Messe Düsseldorf recently and they said the demand, particularly on the tube side, had been massive, so once again it promises to be a spectacular event and that alone is reason for a lot of optimism. TPI will be a big part of the event as always so make sure you promote your company and stand within the pages of our magazine.

As well as an extensive look at the tube exhibition, the show issue will have features on copper tubes and fittings, small diameter, high precision tubes, and tube handling and logistics. The editorial deadline is 8 January and advertising deadline is 11 January. Submit press releases to rory@intras.co.uk

I hope you enjoy the magazine.

Rory McBride
Editor



events calendar

2016

METAV

23-27 February

METAV (Düsseldorf, Germany)
International Exhibition
www.metav.com



22-24 March

FABTECH Canada (Toronto, Canada)
International Exhibition
www.fabtechcanada.com



4-8 April

Tube Düsseldorf (Germany)
International Exhibition
www.tube.de



11-14 May

Lamiera (Bologna, Italy)
International Exhibition
www.lamiera.net



6-9 June

Tube Russia (Moscow, Russia)
International Exhibition
www.metallurgy-tube-russia.com



26-29 September

Tube China (Shanghai, China)
International Exhibition
www.tubechina.net



5-7 October

Tube India (Mumbai, India)
International Exhibition
www.tube-india.com



25-27 October

Indometal (Jakarta, Indonesia)
International Exhibition
www.indometal.net



25-29 October

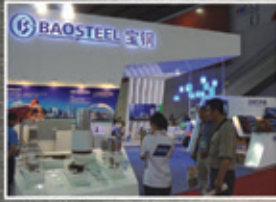
EuroBlech (Hanover, Germany)
International Exhibition
www.euroblech.com



16-18 November

FABTECH (Las Vegas, USA)
International Exhibition
www.fabtechexpo.com

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Organized By :

Guangzhou Julang Exhibition Design Co., Ltd.



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Show time: 12-14 June, 2016

Venue: Ground Floor, C Area, China Import and Export Fair Pazhou Complex
(No.980, Xingang Dong Road, Guangzhou, China)

THE 17th CHINA(GUANGZHOU) INT'L TUBE & PIPE INDUSTRY EXHIBITION

business & market news

Off the west coast of Africa near Angola

Technip awarded umbilical supply contract

Technip's wholly owned subsidiaries Technip Umbilicals Ltd and Angoflex Ltda have been awarded a contract by ENI SpA to supply umbilicals to the Block 15/06 East Hub Development offshore Angola.

This field is located approximately 350km north of Luanda, at water depths of 450-600m. The contract covers project management and manufacture of about 15km of dynamic and static steel tube umbilicals.

Technip Umbilicals' facility in Lobito, Angola, with support from Technip Umbilicals in Newcastle, UK, will manufacture the umbilicals, which are scheduled to be completed in the second half of 2016. This project follows Technip Umbilicals' successful completion of many deep water West African projects in recent years.

Sarah Cridland, managing director of Technip Umbilicals, said, "This award of Block 15/06 East Hub Development

is a recognition of the quality and performance of the umbilicals provided by Technip."

"We are proud to be awarded this contract and will utilise our expertise across multiple Technip Umbilicals sites whilst strengthening our relationship with ENI."

Technip has also been awarded an engineering, procurement, installation and commissioning contract by Petronas Carigali Sdn Bhd (PCSB) for the D18 Project.

The project covers the procurement and installation of two 8" water injection flexible pipes totalling 9.5km. The flexible pipes will connect three fixed jacket platforms that form the existing D18 infrastructure offshore Sarawak, Malaysia, at a water depth of 36m.

This contract is part of the five-year framework agreement signed with Petronas in late 2014, and is in line

with Technip's strategy to strengthen its partnerships with its clients to drive cost optimisation.

Asiaflex Products, Technip's flexible pipe manufacturing plant located in Johor, Malaysia, will execute the contract with support from Technip's operating centre in Kuala Lumpur, Malaysia. The flexible pipes will be manufactured at Asiaflex Products, and the *Deep Orient*, one of Technip's subsea construction vessels, will be mobilised for installation.

KK Lim, president of Technip in Asia Pacific, commented, "This is the first work order awarded under the five-year framework agreement signed with Petronas. We are pleased to be able to leverage our unique subsea vertical integration of product design, manufacturing and installation vessel to offer a cost-effective solution to our client by using flexible pipe technology."

Technip – France
www.technip.com

Combilift breaks ground on €40mn manufacturing facility

Combilift Ltd, a supplier of four-way forklifts and other materials handling equipment to a wide variety of industry sectors, has formally inaugurated the construction process of its new €40mn, 46,000m² manufacturing facility and global headquarters in Monaghan, Ireland.

In the presence of local dignitaries and Combilift's workforce of 350, managing director Martin McVicar and technical director Robert Moffett turned the first sod on the 40-hectare site that will house a multi-function facility including a dedicated R&D building, purpose-built testing area and adjoining administration offices. The facility is larger than originally announced, and the expansion will position Combilift to

double its current €150mn turnover by 2020.

The initial phase to level the site was expected to last for ten weeks, and 200 personnel will be employed throughout the construction period of 18 months.

A further 200 jobs are set to be created in the next five years, mainly for skilled technicians and design engineers.

Mr McVicar commented, "We are delighted to break ground on our new facility which shows our commitment to manufacturing in Monaghan as well as to the regional economy."

Combilift is also a workplace partner for the Assembly Technician Traineeship

course, which started this year at the Monaghan Institute.

This traineeship, together with a recently approved Apprenticeship for Original Equipment Manufacturers (OEM) Technicians, starting in 2016, will ensure the supply of locally qualified personnel.

Combilift is best known for its wide range of multi-directional forklifts, Aisle-Master articulated trucks and material handling solutions such as the Combilift Straddle Carrier, designed to handle large containers and over-sized loads.

Combilift Ltd – Ireland
info@combilift.com
www.combilift.com



Building work started in August

Flowexpo 2016

Flowexpo, an international trade fair for valves, fittings and water treatment systems, will take place from 31 March to 2 April 2016, at the Pazhou Poly World Trade Expo Center, Guangzhou, China.

The exhibition is estimated to cover an area of 15,000m², with around 300 exhibitors. 10,000 visitors are expected,

including 8 per cent of overseas visitors from more than 40 countries and regions.

The range of exhibits will include valves and pipe fittings, ball valves, butterfly valves, gate valves, electromagnetic valves, relief valves, drain valves, blowoff valves, stop valves, plunger valves, plug valves, check valves, throttle valves,

diaphragm valves, reducing valves, isolating valves, actuators, regulators, valve bodies, valve fittings, fluid equipment, process equipment, pumps, compressors, vacuum equipment, sealing, instruments and pressure vessels.

Guangzhou FlowExpo Co, Ltd – China
info@flowexpo.asia
www.flowexpo.asia

Double honour at Offshore Excellence Awards

IMG Composites Ltd was awarded “Best Repair Systems Product: CompoSol” and “Award for Innovation in Offshore Asset Integrity” at the 2015 Offshore Excellence Awards.

The awards recognise firms from all spectrums of the offshore industry, from the smallest local companies to international firms, celebrating the endeavours, accomplishments and ambitions in their specialist field.



IMG Composites commercial manager Ian Taylor

Based in Aberdeen, UK, IMG Composites is a composite engineering specialist company that provides composite pipe repair and structural repair solutions to the oil and gas industry. It was awarded for its innovation and experience in the composite repair industry, which spans over ten years.

Awards co-ordinator Jonathan Hicks said, “It’s a great honour to recognise IMG Composites for the 2015 Offshore Excellence Awards. The awards were heavily contested from companies across the globe, so to be given two awards certainly is a great achievement.”

The awards are given solely on merit and are awarded to commend those most deserving for their ingenuity and hard work over the last 12 months, distinguishing them from their competitors and proving them worthy of recognition.

For IMG Composites the double award in 2015 follows an award win the previous



The two awards won by IMG Composites

year. Commercial manager Ian Taylor stated, “The two awards represent both the excellence of our unique composite repair product CompoSol® and our industry-leading innovations in non-metallic engineering.

“In the current climate of the oil and gas industry there is a lot of negativity, so it is good to be able to help operators maximise output and limit costs with our very cost-effective repair capabilities. Acknowledgement with these awards represents not just independent recognition from Acquisition International but also from our clients who nominated us for these awards.”

IMG Composites Ltd – UK
contact@imgcomposites.com
www.imgcomposites.com

Arco's hose ducting and fittings rebranded

Arco has announced the rebrand of Hose Ducting & Fittings (HD&F) to Arco Hose Division, further cementing its position within the Arco family. The company is also relaunching its website, and has appointed three new technical sector specialists.

Providing hose solutions to the industry for more than 100 years, Arco Hose claims to have one of the largest industrial stockholdings in the UK. One example of the company’s core principles of quality, safety and service is its investment in internal and external swaging and pressure testing, which are carried out at the facility by National Association for Hose and Accessories Distribution (NAHAD) trained fitters.

As part of Arco’s commitment to continuous improvement, Arco Hose Division has seen sustained investment in machinery, including a new £20,000 internal swager. This enables the team to deliver greater customer service in its turnaround of assemblies.

The technical team at Arco Hoses offers expert advice and guidance on choosing the right products, as well as giving advice on hose safety, hose management services and any relevant legislation that needs to be considered.

Alex Richards, general manager – Arco Hose Division, said, “As one of the largest industrial hose distributors in the

country, Arco Hose Division continues to offer customers access to over 2,000 product lines with next-day delivery on orders before 3pm and free delivery to store.”

Arco distributes products and training, and provides expert advice, to help make work a safer place. Founded in 1884, Arco offers a range of over 170,000 quality-assured, branded and own-brand products, including personal protective equipment, clothing, footwear, gloves, workplace safety and hygiene products.

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www.hose-ducting.co.uk

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Managerial appointments at SFC

Valve safety company Smith Flow Control (SFC) has promoted Sander van den Bos to the position of international business development manager. Mr van den Bos joined SFC in 2010 as country manager at the Dutch satellite office, before being promoted to business area manager. He has extensive experience in international sales, totalling over 18 years.

“My new responsibilities involve working on developing market, product



Sander van den Bos

and application opportunities for Smith Flow Control worldwide,” said Mr van den Bos. “I am very excited about the opportunity to contribute to SFC’s success in the global marketplace.”

SFC managing director Mike D’Anzieri commented, “I am delighted that Sander has accepted this pivotal and challenging role of which, I have no doubt, he will make a success. It is especially pleasing to me that we are able to fill senior positions from the existing talent pool within our organisation.”

In his new role, Mr van den Bos will continue to oversee the business unit in the Netherlands, which is responsible for sales and technical support in several European countries, in addition to his global responsibility.

Smith Flow Control has also appointed Peter Wall as its new business area manager. Mr Wall is based at SFC’s office in the Netherlands.

Mr Wall has previous experience working with safety interlocks, having worked for two years as sales and marketing support engineer with CEF Safety Systems.



Peter Wall

“After working for CEF Safety Systems in the late nineties, I’m very happy to get this great opportunity to be involved in the industry again,” said Mr Wall. “I think SFC has very unique and world class products in an ever-changing market with huge possibilities and potential. I’m looking forward to being part of the team and making a difference.”

Smith Flow Control Ltd – UK
enquiries@smithflowcontrol.com
www.smithflowcontrol.com

NEFTEGAZ 2016 to be held earlier

NEFTEGAZ 2016 – an international exhibition for the oil and gas industry, held from 18 to 21 April 2016 – will again be a meeting place for experts and visitors, providing information on the latest developments in equipment and machinery, as well as opportunities for discussions on the latest issues.

The organisers, Messe Düsseldorf, OOO Messe Düsseldorf Moscow and ZAO Expocentr, are pleased about the traditional patronage and valuable support that the event is receiving from the Ministry of Energy of the Russian Federation.

This is the first time that NEFTEGAZ is being held in parallel with the National Oil and Gas Forum, scheduled from 19

to 20 April. The forum, organised by the Russian Ministry of Energy, is a platform for the latest comprehensive information about market developments as well as for business contacts. There will also be a wide-ranging support programme with workshops and expert interviews.

Despite today’s difficult political circumstances, the oil and gas industry is continuing to head for growth and is of far-reaching significance to international suppliers.

Werner M Dornscheidt, president and CEO of Messe Düsseldorf GmbH, is optimistic about NEFTEGAZ: “Although the current situation isn’t easy, the oil and gas industry is of major global significance. NEFTEGAZ provides an

ideal platform to create and cultivate valuable international contacts for future business, after Russia’s restrictive economic policy. I am confident that we will conclude NEFTEGAZ 2016 with a positive result.”

As before, a German group stand has been planned. The group stand is being sponsored by the German Ministry of Economics and Energy in collaboration with the Association of the German Trade Fair Industry (AUMA). It has been initiated by the German Machinery and Plant Manufacturers’ Association (VDMA).

Messe Düsseldorf GmbH – Germany
info@messe-duesseldorf.de
www.neftegaz-online.com

Sandvik awarded key orders for control lines

Sandvik Materials Technology, a division within the Sandvik Group, developer and producer of advanced stainless steels, special alloys, titanium and other high-performance materials, has been awarded two important contracts for control lines for the oil and gas industry in the Middle East.

The first contract is with a new customer – an oil producer based in the United Arab Emirates (UAE) – to supply a complete package of materials. The package includes control line tubing and clamps manufactured by Downhole Products – a Varel International company, owned by Sandvik.

Improvements in the technology for the enhanced exploration of oil and gas fields have increasingly required the use of long continuous lengths of stainless steel and nickel alloy tubing for hydraulic control, chemical injection, umbilical and flowline control applications. Control lines are coiled tubing wound on reels, which are combined with accessories that together help in controlling the flow of oil in offshore oil wells. The tubes connect the wellhead to the subsurface safety valve, and usually contain hydraulic fluids to control the movement of the valve.

The second contract, with a top service company in Abu Dhabi, is a major package for chemical injection applications for use on the Umm Lulu and Al Nasr oil fields in the UAE. These fields are located 30km and 130km northwest of Abu Dhabi, and produce approximately 100,000 and 22,000 barrels of crude oil per day, respectively.

Sandvik supplies coiled tubing for control lines and chemical injection lines, either as bare coils or in flatpacks, as per customer requirements. As control lines are often exposed to corrosive well fluids, Sandvik produces them in a wide range of corrosion-resistant alloys.

“Sandvik has established itself as a dependable producer and supplier of choice for high quality materials as our products continue to be used in some of the most aggressive conditions in the oil and gas sector,” said Leandro Finzetto, global product manager, control lines, tube oil and gas, Sandvik. “We look forward to working with our

new customers and enabling them to go further with our superior materials.

“As a fully integrated manufacturer of seamless control lines, Sandvik has end-to-end capabilities which include in-house flushing, filling and pressure testing to supply the complete package from control line to clamps,” added Phil Cherrie, regional sales and marketing

manager oil and gas, for Europe, Middle East and Africa (EMEA), Sandvik. “With strong stocking capacity and a global manufacturing footprint for project orders with all major service companies, Sandvik is well placed to deliver on both projects.”

Sandvik Materials Technology – Sweden
www.smt.sandvik.com



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www.ukfstainless.co.uk

Voswinkel becomes part of Stauff Group

The Stauff Group has successfully completed the acquisition of Voswinkel from the Voswinkel shareholder family.

With corporate headquarters in Werdohl, Germany, and two additional plants in Plettenberg-Ohle and Neuenrade-Küntrop, the Stauff Group develops, manufactures and distributes pipework equipment and hydraulic components for mechanical and plant construction as well as for industrial service and preventative maintenance.

The company is supported by wholly owned manufacturing, sales and service facilities in 18 countries worldwide, and a network of authorised distributors and representatives in all major industrial regions of the world.

Voswinkel is considered to be one of the world's five largest producers of quick release couplings for hydraulic systems. The German company, founded in Kierspe-Rönsahl in 1928, also develops and produces a comprehensive range of hydraulic hose fittings, particularly for high-pressure applications, as well as custom-designed piping, from its two sites in Meinerzhagen. Voswinkel equipment is primarily used for construction and agricultural machinery as well as for commercial vehicles.

Pooling both companies' business activities and merging the product ranges creates the opportunity of offering distributors, original equipment manufacturers and other customers in Germany and abroad an increasingly

complete package of pipework components for fluid power applications from a single source.

Without this cooperation with Stauff, Voswinkel would have had to press ahead with its own internationalisation in the medium term with costly expansion, but now has immediate access to Stauff's global network for the distribution of its own products and solutions. This network includes subsidiaries in Europe, North and South America and Australia, as well as in core growth markets such as Russia, China and South-East Asia. The companies are already cooperating successfully in some of these markets.

Voswinkel will remain an independent company within the Stauff Group, and will retain its character as a medium-sized company led by Claudia Voswinkel-Schöpp, chairwoman of the executive management board, Heinz-Werner Störmer and Georg Weiland. Independence in this context also means that Voswinkel will continue to operate under its corporate name, which has been an established brand for many decades. A guarantee has also been given to retain the two Meinerzhagen 'Neugrünenthal' and 'Auf der Koppel' sites of Voswinkel.

Stauff – Germany
www.stauff.com

Voswinkel GmbH – Germany
voswinkel@voswinkel.net
www.voswinkel.net



Knut Menshen, president of the Stauff Group, with Claudia Voswinkel-Schöpp, chairwoman of the executive management board of Voswinkel

New office in Beijing extends regional offering

e2v, a provider of innovative technology for high performance systems and equipment, has announced its move to new offices in Chaoyang District, Beijing, China.

The new facility provides services for the company's RF Power customers, supporting new product development and offering faster in-country service for

installed bases. As part of e2v's growth strategy, on-site staff now provide technical and application support, assembly, local stocking operations and local procurement for RF Power sub-systems.

Anthony Fernandez, vice president in Asia Pacific at e2v, commented, "We have moved to this new office as part

of our long-term growth strategy in China.

"Along with investment in new equipment, it enables us to offer better services to our customers in the radiotherapy and cargo-screening markets."

e2v – UK
www.e2v.com

Memorandum of cooperation for Sakhalin-2

Sakhalin Energy and TMK, a producer of tubular products for the oil and gas industry, have signed a memorandum of partnership for TMK premium threaded connection pipes to be used by Sakhalin Energy. The memorandum provides for partnership and collaboration as required for these products to be tested and certified for use in the Sakhalin-2 Project.

TMK UP premium connections for casing pipes made of chrome, high-carbon and highly corrosion resistant steel are to be tested for compliance with ISO 13679 CAL 4 2014. It is also expected that joint technical audits will be held on TMK entities under Shell's TAMAP (technically accepted manufacturers and products) pre-qualification process. TMK UP PF premium connections for the 244.48mm casing pipes have successfully passed the qualification tests, which are a mandatory requirement in the global oil and gas industry for pipes used in hydrocarbon production.

At the signing ceremony, Roman Dashkov, CEO of Sakhalin Energy, emphasised that, "This cooperation will help the company switch to Russian tubular products with premium connections entirely to replace foreign equipment we had to import. It is especially essential in the context of import substitution and will foster economic growth, ramp up supplies of competitive Russian products and promote the development of new technologies. Sakhalin Energy strives to maximise the involvement of Russian producers in the Sakhalin-2 Project."

TMK CEO Alexander Shiryayev commented, "Engineering-wise, Sakhalin-2 is an extremely sophisticated project implemented in complex natural and weather conditions, and the most rigorous requirements apply to the piping to be used in this project. TMK has had many years of experience in supplying premium products designed to support upstream operations in the most severe climates and geologies

worldwide. We are looking forward to providing our partners with unparalleled opportunities and highly effective pipe solutions to meet their expectations to the maximum extent, also in terms of import substitution."

TMK has also signed a long-term agreement with Gazprom, to supply a complete set of premium tubular products. The agreement is part of Gazprom's new approach to work with producers of import replacement tubular products. Under this approach, Gazprom and a producer sign a long-term contract that will ensure guaranteed purchase volumes throughout the contract term.

The agreement has been signed for a period of several years and will see TMK develop, manufacture and supply tubular products to Gazprom and offer maintenance.

TMK – Russia
 tmk@tmk-group.com
 www.tmk-group.com

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INDÚSTRIAS DE TUBOS DE AÇO DE FERNANDO PINTO TEIXEIRA SA

SAPAP

Flexitallic announces new distributor agreement

Flexitallic Ltd, a manufacturer of sealing solutions, has expanded its network of UK distributors with the appointment of Hull-based One Stop Sealing Ltd.

Under the distribution agreement One Stop Sealing will stock Flexitallic's spiral wound gaskets and sheet materials including graphite and PTFE, which it will supply to customers in East Yorkshire, Lincolnshire, South and North Yorkshire and Nottingham.

One Stop Sealing Ltd, which has been supplying sealing, hose and water jet cutting services for more than 11 years, serves companies across food and beverage, pharmaceutical, power generation, chemical and petrochemical sectors. The company now has access to Flexitallic's full range of sealing solutions, which are manufactured at its UK factory in Cleckheaton, West Yorkshire.

For more than 100 years Flexitallic has been at the forefront of the gasket and sealing industry. The inventor of

the spiral wound gasket in 1912, the company has continually innovated to create products that can operate in harsh industrial conditions, meeting and exceeding the increasing demands of modern industry.

In addition to directly supplying customers in oil and gas, chemical, nuclear, power generation and original equipment manufacturers (OEM), Flexitallic operates a network of distributors across the UK and around the world.

Kevin Deakin, managing director of One Stop Sealing Ltd, said, "We are very proud to join Flexitallic's UK distribution network. As fellow Yorkshire companies with extensive experience in the sealing sector, we share the same commitment to quality and customer service.

"This agreement not only enhances our product portfolio, it increases our access to technical knowledge and expertise from a manufacturer that is globally recognised for creating innovative sealing solutions."



Kevin Deakin, managing director of One Stop Sealing, visiting Flexitallic's manufacturing operation in West Yorkshire

Sam Bradley, UK sales manager at Flexitallic, said, "Having a robust distribution network made up of experienced partners such as One Stop Sealing Ltd supports the presence of our product range across UK industry sectors. We have been impressed with the company's professional approach to the sealing industry and its strong customer base. One Stop Sealing Ltd is a welcome addition to our UK network and we look forward to a long and prosperous relationship."

The Flexitallic Group – UK
www.theflexitallicgroup.com

Plymouth employees attend Feed My Starving Children event

Six members of Plymouth Tube Co volunteered to pack food for the Feed My Starving Children (FMSC) organisation. The event was put on by Plymouth's Charitable Giving Committee, which is based at the company's headquarters in Warrenville, Illinois, USA.

The employees travelled to the FMSC site in Aurora, Illinois, and were split into groups where they assembled packages of dried vegetable, soy and rice into 'Manna Packs'. These packs were then weighed, sealed and boxed for shipment.

In total, 70 volunteers packed boxes containing 22,000 meals. The FMSC

organisation distributes these boxes of packaged food to malnourished children and families around the world. The packs are used to operate orphanages, schools, clinics and feeding programmes to break the cycle of poverty. This was the fourth time that Plymouth employees have participated in the event, and they feel the opportunity has had a positive impact on the company as a whole.

"I think these events give us a unique chance to work together with co-workers from other departments while spending time helping so many in need," said employee Stephanie Howard. The volunteers from the Plymouth Tube Co plan to continue

the charitable tradition in future years.

Plymouth is a tubing supplier of speciality carbon, alloy, nickel alloy and stainless steel tubing for aerospace, mechanical, pressure, boiler and hydraulic applications. Steel, nickel and titanium extruded and cold drawn shapes are produced by Plymouth Engineered Shapes.

Plymouth Tube Co – USA
sales@plymouth.com
www.plymouth.com

FMSC – USA
info@fmsc.org
www.fmsc.org

OptaSense finalist in Global Pipeline Awards

OptaSense has been recognised for its contribution to pipeline leak and intrusion detection by being shortlisted for a prestigious international award. The company has been recognised in the ASME Pipeline Systems Division Global Pipeline Awards for the innovative use of its award-winning distributed acoustic sensing (DAS) system on Colombia's Bicentennial oil pipeline.

The judging panel recognised OptaSense's unique use of a single fibre system to provide both leak detection and intrusion detection on the country's largest pipeline. The 235km first phase of the pipeline was completed in 2012 and has a diameter of 36-42", with a capacity of 450,000 barrels per day (bpd) of crude.

The integrated DAS solution works across multiple functions via a single fibre optic cable that effectively 'listens' to the pipeline in order to provide detailed data about its current status. Any changes to the condition of the pipe are fed back through an interrogator unit



OptaSense executive director Magnus McEwen-King

in real time, allowing users to identify and address issues early and maintain the highest level of pipeline integrity and product throughput.

Leak and intrusion detection are vital to maintaining pipeline integrity and production maximisation in the oil and gas industry. The pipeline was closed

in 2014 due to third party attacks on it, costing the Colombian economy thousands of barrels per day in lost deliveries. OptaSense executive director Magnus McEwen-King said, "This award not only recognises the innovative use of fibre, but also the engineers of Ecopetrol and OptaSense who have jointly worked to deliver real improvements to the integrity management process of the Bicentennial pipeline."

"Our award-winning technology has a proven record of reducing the costs of asset ownership and providing life-long intelligence through highly effective monitoring, thereby reducing incidents and extending asset life."

The annual awards ceremony aims to recognise pipeline technology innovation processes in phases such as research laboratory, field applications and technology incubators.

OptaSense – UK
www.optasense.com





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Double celebration at Hobas TechCenter

Since February 2013, the Hobas TechCenter in Wietersdorf, Austria, has been a state-approved, independent testing facility for GRP pipe systems.

The laboratory has now been put through its paces again in order to re-confirm what had previously been accredited.

An excerpt of the latest accreditation report shows that the Hobas TechCenter has again passed the audit to ISO/IEC 17025 with flying colours:

“The testing facility provides a very high standard of competence with regard to the production and testing of GRP pipes as well as sophisticated, comprehensive testing equipment. The testing personnel has specific skills and profound knowledge in the realisation of all tests. The quality management system is very well implemented both in practice and electronically. The random inspection for the recording and documentation of measurement uncertainties showed an impressive report of outstanding quality for the estimation of measurement uncertainties.”

With this re-certification, the Austrian Ministry of Economics confirmed that the Hobas TechCenter meets all

requirements to conduct officially recognised independent tests on GRP pipe systems.

In an area of approximately 1,400m², and by means of more than 30 different long-term and short-term tests, Hobas experts constantly test and monitor the performance of various Hobas products according to national and international standards.

They examine the pipes' stiffness; their resistance against abrasion, corrosion and chemicals; their performance under draw as well as under hydrostatic, cyclic and negative internal pressure; the tightness of comprehensive pipe systems including joints; and the functionality of complex fittings.

Inaugurated in 2010, the Hobas TechCenter recently celebrated its fifth anniversary. Well-wishers from all around the world travelled to Wietersdorf to participate in technical lectures, and to



Hobas Group managing director Doris Strohmaier welcomed industry experts from around the world at the Hobas TechCenter anniversary celebration



The international guests enjoyed a look behind the scenes of the TechCenter's officially accredited testing facilities

gain an insight into Hobas research and development activities.

Hobas Engineering GmbH – Austria
info@hobas.com
www.hobas.com

Certification for duplex steel tubes producer

TÜV Rheinland Group has confirmed that Centravis, a supplier of solutions in the segment of seamless stainless tubes, has received VdTUV 418 certification, showing that the company's steel duplex tubes are produced in accordance with German industrial standards.

According to Centravis, this certification will ensure a 45 per cent increase in the sale of duplex tubes in the German market, as compared to 2014.

“Obtaining the TÜV Rheinland Group certificate will strengthen the company's position with regards to supply of

duplex steel tubes to Germany, where the company's products are in high demand,” said head of Centravis sales Germany, Nicholai Rosenthal.

“Furthermore, VdTUV 418 certification validates yet again the quality of Centravis products, especially those made of duplex steel grades.”

In addition to Germany, Centravis is developing its Scandinavian market. In 2015, the company received Norsok M-650 (qualification Norsok M-630, Edition 6) certification from independent inspection company Ztrong Partner AS

for the hot pipe production of tubes made of duplex and super duplex steel grades. Similar approval was obtained for the production of duplex and super duplex cold-deformed pipes.

Centravis supplies products to key markets worldwide through a branched network of sales offices in Russia, Ukraine, Germany, Switzerland, Poland, Italy and the USA, and sales agents in regions including Brazil, the Middle East, South Korea and Australia.

Centravis – Ukraine
www.centravis.com

Advanced tubing for FPSO heat exchangers

Superior Tube, a manufacturer of precision metal tubing for safety critical applications, has been awarded a contract from TEMA India Ltd to supply heat exchanger tubing for a new floating production storage and offloading (FPSO) vessel.

The vessel is among several commissioned by Brazilian energy giant Petrobras as part of its project to develop the oil reserves in the pre-salt fields in the Santos basin off the Brazilian coast.

For the vessel's heat exchangers, Superior Tube provided 37km of seamless alloy 625 tubing. Manufactured to stringent specifications, the tubing will undergo a rigorous testing process in order to meet high quality requirements.

Representing an important step in the company's strategy to expand its oil and gas business in the world's major growth regions, this contract win was achieved as a result of a strong collaboration between Superior Tube and its sister mill, UK-based Fine Tubes, which has an established presence in India.

"We are pleased to collaborate with Superior Tube in providing the Inconel

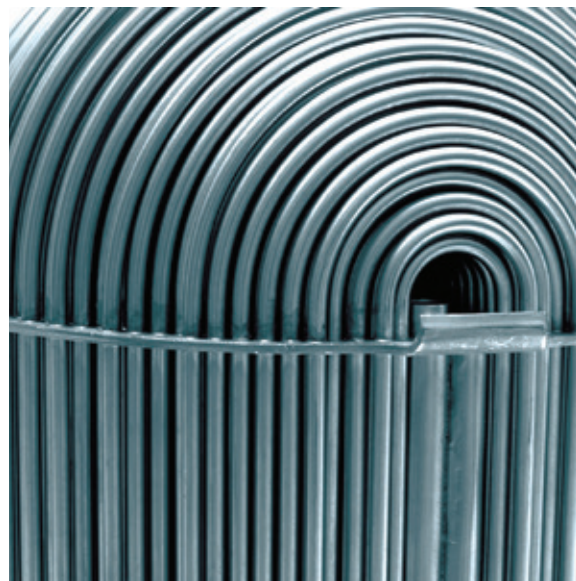
625 tubing for this prestigious project with Estaleiros do Brasil Ltda (EBR) and Toyo Engineering Corporation of Japan," commented Haresh K Sippy, managing director for TEMA India.

"It is the first FPSO project executed by an Indian company with Petrobras as the end client.

"The tubing has to meet stringent quality requirements and must have a very low wall thickness with a thickness/diameter ratio of 0.07 to 0.08. We are confident in Superior Tube's ability to meet those requirements, and look forward to a mutually beneficial and lasting business relationship."

Superior Tube's products are used in a range of industries, from oil and gas extraction to aerospace, power generation and pharmaceutical manufacture. Its manufacturing capabilities include seamless and welded tubes, straight lengths and coils in stainless steel, nickel, titanium and zirconium.

TEMA India is a global process equipment manufacturer for critical high-pressure, high-temperature applications.



Heat exchanger tubing for the FPSO

It is among the largest manufacturers of shell and tube heat exchangers in India, and serves the oil and gas, fertiliser, power and FPSO sectors.

Superior Tube Co – USA
www.superiortube.com

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0.8A Europa Studios
Victoria Road
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Member of the ITA



www.qualitube.co.uk

Brugg purchases PIPE2000

Swiss manufacturing group Kabelwerke Brugg AG Holding has acquired a 100 per cent shareholding in PIPE2000 Ltd – one of the longest serving customers of Brugg Pipesystems.

Brugg's manufacturing history dates back to 1896. The group consists of five divisions – pipe systems, cable systems, rope technology, process control systems and real estate.

Brugg Pipesystems has factories in Switzerland and Germany. Its flexible and rigid, pre-insulated or safety pipe



systems are used in many sectors of the construction industry.

PIPE2000 Ltd was established in 1986 with offices and warehousing in Benfleet, Essex, UK. The company sells and distributes Brugg pre-insulated pipe systems nationally throughout the UK, and sales support is provided to specifiers, constructors, M&E contractors and other trade professionals.

Brugg Pipesystems CEO Urs Bollhalder commented, "The acquisition of PIPE2000 underlines our commitment to expanding the already high level of customer service that PIPE2000 provides and to firmly establishing our brands as UK leaders in quality, innovation and reliability. The current management and staff of PIPE2000 Ltd will continue to be key members of our team. The board of directors will be further strengthened by the addition of Urs Bollhalder, Michael Sarbach and Andreas Pitschak."

Ian Moxom of PIPE2000 said, "Plastic pipes have always been an integral part of our business. Our association with Brugg began in 1995 with Calpex and Casaflex flexible pre-insulated pipes as manufactured by Brugg Pipesystems.

"Brugg produces environmentally efficient pipes with very high insulation values which are a perfect solution for today's environmental agenda of reducing energy loss.

"We have supplied Calpex and Casaflex flexible pipes to thousands of projects and are pleased to have built a wide and appreciative customer base."

Brugg Pipesystems – Switzerland
info@pipesystems.com
www.pipesystems.com

PIPE2000 Ltd – UK
pipe@pipe2000.co.uk
www.pipe2000.co.uk

Pipe measurement for Kaombo ultra-deep offshore project

Oil and gas pipe measurement specialist Optical Metrology Services (OMS) has completed a series of pipe measurement surveys for the Kaombo Ultra-Deep Offshore Project. The scope of work involved end dimensioning, numbering and colour banding of deep-sea, fatigue-critical flowline pipe, steel catenary risers (SCR) and long seam welded line pipe.

Kaombo Ultra-Deep Offshore Project involves the development of six of the 12 fields discovered at Block 32, around 260km offshore Luanda in Angola. The project is located in an 800km² site in the central and southeast part of the block. The water depth at this location ranges from 1,400m to 1,900m.

The project involves the drilling of 59 subsea wells, which will be connected via 300km of subsea pipelines to two floating production, storage and offloading (FPSO) vessels. Associated gas from the fields will be transferred to the Angola Liquefied Natural Gas (LNG) plant in Soyo. Production is scheduled

to start in 2017, with production capacity expected to be 230,000 barrels a day.

Marcus Smiles, client solutions executive at OMS, commented, "OMS is really excited to be involved in such an important deep-sea development project – currently the largest of its kind in the world. By measuring every pipe end and then colour banding these to a calibration block group code [in accordance with calibration blocks to be used for the AUT inspection], 'golden joints' can be allocated to the more critical sections of the deep-sea pipeline. Identifying and marking pipe ends in this way will improve operational logistics for the customer, ensuring the least possible disruption and handling to their pipe fit-up and welding processes, which in turn will minimise project cost and delays."

OMS was contracted to perform onshore pipe end dimensioning of more than 10,000 pipe ends. The work was carried out in three separate mobilisations. Five OMS engineers were deployed for ten

weeks at the Bredero Shaw pipe yard in Batam Island, Indonesia, to measure more than 9,000 pipe ends. In addition, two OMS engineers were deployed for two weeks at the Socotherm pipe facility in Sicily, Italy, where an additional 750 pipe ends were measured. The pipe sizes measured were a mix of 10", 12", 14" and 16" in diameter. OMS also deployed four engineers for two weeks in Brazil, where an additional 800 pipe ends were measured. These were 18" diameter subsea arc welded line (SAWL) pipes.

For end dimensioning, OMS utilised its own AutoTool laser measurement tool, capable of recording more than 2,000 internal/external measurements around each pipe end in less than 20 seconds. This tool is accurate to 0.05mm and enables OMS staff to measure hundreds of pipe ends per shift.

Optical Metrology Services Ltd – UK
info@omsmeasure.com
www.omsmeasure.com



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Promoted by



Flexenergy appoints new regional manager

Pipe specialist Flexenergy has appointed Andy Watts in a new regional manager role, covering all areas of the UK south of the M62 corridor.

Mr Watts has a wealth of experience in the construction and energy sectors and is familiar with Flexenergy's services and products, having worked for them previously for a period of eight years up to 2010. His time away from Flexenergy, working for a heat generation company selling and providing solutions to clients for products ranging from commercial boilers to CHP engines, has increased Mr Watts's knowledge of the industry and where it is heading.

With district heating now becoming more prevalent in the UK, Mr Watts believed it was the right time to come back to a product range he knows well, and in a new role that will help the development of the team he is now responsible for. His main objectives with Flexenergy will be to drive the business forward by supporting customers both directly and through

design via consultant engineers. He is also responsible for identifying different approaches to market, with installation of heating mains being a primary focus.

Mr Watts commented, "After five years away it feels totally natural to come back, especially with the rise in district heating in the UK. There are new challenges to meet and newer myths to expel such as heat loss and how comparisons are incorrectly calculated from headline printed figures. I'm looking forward to explaining these issues and welcome the opportunity provided by Flexenergy to drive the business into a new era."

Sandy Fairley, Flexenergy's sales director, added, "Andy will be playing a key strategic role for Flexenergy as we continue to expand our business throughout the UK.

"He knows the industry very well and with his knowledge, enthusiasm and determination, I'm sure he will be very successful in his new role."



Andy Watts

Flexenergy designs, supplies and installs distribution pipework used in heating and hot and chilled water systems across a wide variety of renewable energy technologies.

Flexenergy Ltd – UK
office@flexenergy.co.uk
www.flexenergy.co.uk

McElroy adds fusion equipment distributor

McElroy has announced the addition of a new distributor to serve pipe fusion machine customers throughout Louisiana, USA. Industrial Municipal Supply Co (IMSCO) of Geismar, Louisiana, joins McElroy's expanding network of North American distributors offering an extensive line of fusion machines and tools for thermoplastic pipe.

IMSCO has 40 years of experience in custom fusion service, on-site fabrication and maintenance on McElroy machines, in addition to being a supplier of high-density polyethylene (HDPE) pipe, valves and fittings.

"IMSCO's extensive background in pipe fusion makes them a natural fit as a distributor of our machines, and we are very happy to bring them aboard," said president Chip McElroy of McElroy. "Building reliable pipelines requires reliable equipment. Together, we play a crucial role in building the world's best infrastructure."

The company will sell McElroy equipment for HDPE pipe used commonly on large-scale water, industrial and natural gas projects.

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products & developments

Trelleborg offers a range of pipe products

Simple pipe seal selection with industry app

Demonstrating its commitment to assuring productivity over the entire pipe cycle, Trelleborg's pipe seals operation has launched a new app designed to help pipe and manhole manufacturers select the right pipe seals to enhance their product offering. The new Seal Selector app is available for use on all mobile devices and platforms, including iOS and Android smartphones.

Bill Hagenberg, president for Trelleborg's pipe seals operation, said, "We understand that the reputation of pipe and manhole manufacturers depend on the performance of their products, not only during installation, but over their service lives too. That's why, here at Trelleborg, we hold a long-standing commitment to creating high quality

solutions that help manufacturers to make completely leak-free pipes, manholes and connectors entirely achievable. With that in mind, we have taken the decision to launch our first ever app, designed to speed up and simplify the pipe seal selection process."

The intuitive and user-friendly app provides users with information about Trelleborg's solutions in just a few clicks. After specifying parameters including product requirement, application needs and dimensions, the app provides users with the optimum seal type, reference number, description and datasheet for their specific needs.

Trelleborg's engineered polymer solutions seal, damp and protect

critical applications in demanding environments. Part of the wider Trelleborg Industrial Solutions business area of Trelleborg Group, Trelleborg's pipe seal operation is a supplier of new and rehabilitation sealing solutions for concrete, plastic pipes and manhole pipes used for water, sewerage and drainage. It supplies customers around the world, with a logistics and sales network spanning Asia Pacific, Europe, the Middle East, Africa, North America and South America.

The Seal Selector app is available for download from the Apple App Store, Google Play and the Trelleborg website.

Trelleborg – Sweden
www.trelleborg.com

Opportunities and solutions with HF welded aluminium tubes

Sapa Precision Tubing offers solutions for 5-series alloy tubes and profiles. The high frequency welded tubes are claimed to offer a variety of advantages. The narrow tolerances on diameter and wall thickness enhance design possibilities, and lead to higher stability for the transformation process.

Combined with the high strength offered by the 5xxx series alloys, significant

weight reduction can be realised, leading to improved technical solutions and cost reduction. The 5xxx series alloys need no age hardening, and are offered in different tempers.

HF welded aluminium tubes are used for a wide range of products, from strong, pre-anodised telescopic handles to very complex hydro-formed lightweight automotive parts.



They have also found their way into heat exchange applications, not only as a more economical and lightweight solution compared to other materials, but also because the availability of multi-layer clad materials allows brazed heat-exchange solutions in the shape of round, oval or D-shaped tubes.

To illustrate that the tubes are widely used, Sapa states that many cars contain parts made from an HF welded tube made by Sapa Precision Tubing, and claims that it is likely that the chassis, sub-frame, suspension or cooling system of your car contains Sapa's HF welded tubes.

HF welded tubes and profiles are available in wall thickness ranging from 0.65 to 6mm, and in an outer diameter up to 160mm. Tubes are available in most 5xxx and 3xxx series alloy, as a mill finish or pre-anodised tube. For the 3xxx series alloys, multi-layer clad tubes are possible.

Sapa Precision Tubing
Lichtervelde NV – Belgium
 weldedtubes@sapagroup.com
 www.sapagroup.com

MultiStrike tungsten electrodes offer safer, easier TIG welding

A special recipe for TIG welding electrode material offers benefits in quality, safety and ease-of-use, according to its British developer.

MultiStrike® tungsten electrodes, developed by Huntingdon Fusion Techniques®, were designed to address growing concerns about the radiotoxic thoria that is present in standard red tipped tungsten electrodes.

It was found that other rare earth elements that are not radiotoxic were also used in the industry for activating tungsten, as in the case of normal light bulbs, and that a mixture of those

elements added during the manufacturing process produced a superior tungsten electrode.

The MultiStrike is claimed to strike an arc ten times more than a red tipped thoriated tungsten, when tested under identical conditions. Because MultiStrikes have no radiotoxic and carcinogenic dopants such as thoria, there is no hazardous dust to be inhaled during grinding of the tips, which is also reduced with these electrodes.

Suitable for a wide variety of welding operations, MultiStrikes are said to be particularly effective in the welding of



MultiStrike tungsten electrodes from Huntingdon

titanium, stainless steel and aluminium AC and DC, in industry sectors such as aerospace, petrochemicals, pharmaceuticals and motorsport. Each packet of MultiStrike tungsten electrodes carries a total traceability identification.

Huntingdon Fusion Techniques – UK
 hft@huntingdonfusion.com
 www.huntingdonfusion.com

Update to engineering simulation platform

Using the newly released ANSYS® 16.2, engineers can create virtual prototypes of complete systems, enabling them to make strides in innovation and to use next-generation products within their industries.

As products become more complex and development times continue to shrink, the need to simulate whole systems grows. Through simulation, engineers can take full advantage of the growing number of opportunities presented by the rapid innovation of materials, electronics and processes.

While some manufacturers have optimised the design of components or smaller sub-systems, no comprehensive solution has existed for simulating complete systems. The complexity within systems arises from the challenges of connecting the individual pieces to ensure they work together as designed.

"ANSYS customers are already solving component and sub-system problems using the most advanced software available," said Jim Cashman, ANSYS president and CEO. "But with today's release of ANSYS 16.2, they expand to

the system level. We're offering engineers the most advanced engineering solution technologies on the market to predict real-world product performance using accurate, fast and reliable simulation. By leveraging these new capabilities, enterprises will gain competitive advantage in a competitive market."

Part of this new simulation approach is made possible by enhancements to ANSYS Simplorer®, a comprehensive platform for multidisciplinary systems modelling. In this new release, Simplorer can assemble and simulate electrical, electronic, thermo-fluid, mechanical and embedded software components. The methodology offers advanced 3D precision when needed, as well as reduced-order modelling for verifying multi-domain system performance interaction.

ANSYS 16.2 offers advancements in systems engineering through ANSYS AIM®, an integrated and comprehensive multi-physics simulation environment designed for engineers. AIM has rapidly developed, and ANSYS 16.2 represents its next step forward. Among the new multi-physics and systems capabilities

are heat transfer and thermal-stress, gas flows, and structural deformation and stress.

Optimising heat transfer and thermal-stress is a critical design issue for many types of industry applications, such as heat exchangers, thermal mixing valves, engine components and electronic devices. In such applications, an accurate prediction of the temperature and heat transfer in both the fluid and solid regions is essential to accurately predict the thermal and thermal-stress performance of the design. AIM now includes new features to support a comprehensive conjugate heat transfer analysis and one-way fluid-structure interaction to compute thermal-stress.

Predicting the correct flow field for compressible gas flows in the subsonic and transonic range is a critical design issue for many different applications. Industry applications include high-speed flow over airfoils or nacelles, and high-pressure flows in natural gas pipelines and valves.

ANSYS, Inc – USA
www.ansys.com

Pipe clamps, clips and accessories

Rohrbefestigungen Hammerschmid specialises in the industrial production of pipe clamps in small and large series, including further processing, coating, pre-assembly and packing.

Its products are used in domestic plumbing applications, industrial building, wastewater treatment plants, chemical industry, paper and steel industries, as well as in waste incineration plants and power plant construction.

The company can produce pipe clamps, round and flat steel clips, pipe carriages with accessories, pipe suspensions, special constructions of any kind, and secondary supports.

Products are manufactured according to customer specifications, drawings or samples, while taking into account various working standards.

Hammerschmid regularly includes new product groups in its delivery programme, in order to offer a broad range of goods. By continuously enlarging and automating production the company is able to produce pipe

supports in every material and with any surface coating required.

Rohrbefestigungen Hammerschmid GmbH – Austria
www.hammerschmid.at



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Record size microtunnelling with Hobas CC-GRP pipes

In the Polish capital Warsaw, a 3.2km-long Hobas De 3270 pipeline has been microtunnelled on the left bank of the Vistula River to transport sewage and rainwater from the central and northern districts to the wastewater treatment plant (WWTP) Czajka.

The new line will discharge the old Burakowski sewer, and represents an extension of the De 3000 jacking project that earned Hobas the ISTT No-Dig Award in 2011. Within almost eleven months, a new interceptor sewer has been installed via microtunneling along Marymoncka Street in Warsaw.

Built from Hobas pipes with an outside diameter of 3,270mm, it is claimed to be the largest-diameter microtunnelling project to be implemented with CC-GRP pipes in Europe so far.

The Burakowski-Bis interceptor completes the sewer system leading from the left-bank Warsaw area to the WWTP Czajka located on the right bank of the Vistula River.

Due to its limited capacity, the over 50-year-old Burakowski sewer could no longer handle the large amounts of combined wastewater during heavy rains. Its poor operating conditions posed a threat to the entire sewer



system and regularly led to emergency discharges of untreated wastewater into the Vistula, causing an ecological hazard. The construction of a new parallel sewer with additional retention capacity should allow for a higher level of environmental protection.

The new sewer should also transport wastewater to the WWTP Czajka and make it possible to discharge and modernise the old sewer. Microtunneling was chosen as the optimal method for the construction of the Burakowski-Bis sewer for several reasons. The dense urban environment meant that the new line had to be installed at a

depth of 8 to 13m underneath the green belt separating the two lanes of Marymoncka Street. There was also a tram line running close by, as well as underground technical infrastructure.

It was recognised that trenchless installation would considerably reduce excavation works and traffic disruption, as well as shortening the construction time of the new sewer line. Only a short, 47m-long section of the project was realised in open cut, on a green space alongside Słowackiego Street.

The total length of the microtunnelled sewer line is 3,204m, and it consists of seven segments ranging in length from 107 to 613m. The first, and most demanding, section led from the launch pit at Dorycka Street to the receiving pit at the Maria Skłodowska-Curie Bridge. It had a length of 410m and included a 97m-long curve with a radius of 400m, which was implemented with 1m-long pipes.

Due to the good lubrication and high-performance properties of Hobas pipes, the section could be realised without difficulty, with a maximum jacking force of less than 600 tonnes. The intermediate jacking station originally designed for this section was not needed, which made the assumed work progress of 10m/day increase to 16m/per day.

Hobas Engineering GmbH – Austria
info@hobas.com
www.hobas.com

Precision ball valve with greater flow

When Beswick introduced its 10-32 threaded ultra-miniature ball valves, the MBVMD-1010-303 ball valve won *Design News Magazine's* Best New Product Award in 2011.

The MBVMD-1010-303 is suitable for many miniature, high-technology-type applications. However, when an application requires a precision ball valve that is more compact than traditional NPT threaded ball valves, but that can also provide more flow than is possible with 10-32 threads

and a relatively small orifice, that configuration is not always easy to find.

The Beswick MBV-1414-3 ball valve is designed with 1/4-28 UNF straight threads and a relatively large orifice diameter of 0.125", and weighs only 34g. It provides more than three times as much flow area as the 10-32 threaded valve.

Beswick Engineering Co, Inc – USA
besales@beswick.com
www.beswick.com

Tubacex boosts innovation strategy in umbilicals

Tubes for the manufacture of umbilicals are some of the highest value-added and technological products that the Tubacex Group has been committed to in recent years within its development plan.

Umbilicals are high-demand products that are used in offshore wells for hydraulic control and chemical injection services, where tubes fulfil strict quality and performance levels. These tubes must offer high mechanical resistance as well as resistance to corrosion in the most demanding environments, in addition to good weldability.

Since 2010 Tubacex has manufactured this type of tube at its Schoeller Bleckmann Edelstahlrohr GmbH (SBER) plant in Ternitz, Austria.

As a result of its research and development activities, the Tubacex Group has designed a chemical composition optimising the grade of UNS S32750 austenitic-ferritic steel, and has designed the manufacturing route of bars used as raw material for this type of tube at Acerálava.

This development will enable Acerálava to supply an intermediary product that will provide mechanical and corrosion characteristics. It also ensures optimum weldability in the whole dimensional range of umbilical tubes, which enables a microstructure to be obtained in the heat-affected area that fulfils the most stringent quality requirements.

Acerálava's capacity to manufacture raw materials for umbilical tubes offers the possibility of integrating the entire manufacturing process within the Tubacex Group. This will allow control of the entire supply chain.

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3sun installs inaugural time delay block valve

3sun Group's subsea division has installed its first time delay block valve (TDBV) for use on hydrocarbon producing wells.

The exclusive valve was designed and manufactured by Bifold Group, a specialist in hydraulic and pneumatic stainless steel directional control valves and accessories for hazardous, corrosive and subsea environments, in accordance with a qualification specification approved by 3sun Group. The prototype TDBV was installed on a North Sea platform.

Graham Hacon, CEO of 3sun Group, explained, "Hydrocarbon producing wells have a down hole safety valve (DHSV) or surface controlled sub sea safety valve (SCSSV) which shuts the well quickly when required, and is usually

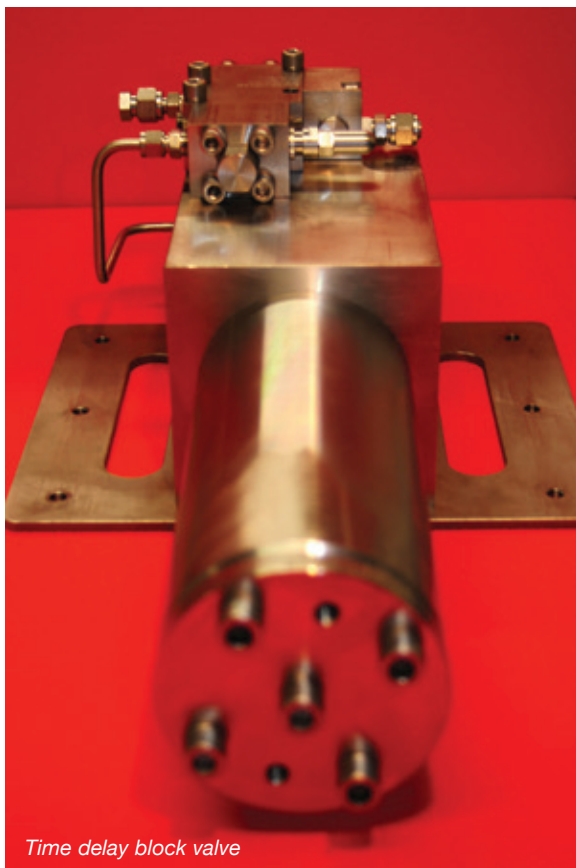


Graham Hacon, CEO of 3sun Group

controlled hydraulically from the surface. Due to the large amount of solid debris (mainly sand) carried in the recovered hydrocarbons, contamination damage commonly occurs to the DHSV, causing leakage into the hydraulic control line. This can result in escaping gases, which are toxic to the surrounding workforce with high risk fire/explosion potential.

"TDBV allows absolute control of the DHSV. By blocking the hydraulic control line, it prevents migration of gaseous and fluid hydrocarbons into working areas, which in general are not hazardous areas classified for such ingress – until the DHSV is to be reopened to resume recovery of hydrocarbons, at which point the time-delayed blocking valve reopens to allow hydraulic communication. The TDBV is the only valve type suitable for this requirement, for which the valve concept was designed."

Headquartered in Great Yarmouth, UK, 3sun Group provides products and services to the global energy industry. Delivering complete packages to the oil and gas and wind turbine



Time delay block valve

sectors, its capabilities include engineering solutions, consultancy and design; manufacture, installation and maintenance services; modifications and retrofits to existing systems; statutory inspection, testing and certification for plant, equipment and tools; technical and vocational industry training; and asset integrity management.

3sun Group – UK
enquiries@3sungroup.com
www.3sungroup.com

Seamless pipe from speciality metals

Nu-Tech Precision Metals extrudes seamless pipe, tube and near net shapes from speciality metals, including all grades of Ti, Zr, CuNi, Cu, Hf, Nb and other alloys. The company's 3,250-ton extrusion press, located at a plant just outside Ottawa, Canada, produces seamless pipe from approximately 40 to 350mm OD (1.5" to 14") for various applications, including aerospace, nuclear, medical, military, chemical and mining.

Nu-Tech's ability to alpha-beta process results in improved fatigue resistance

over beta extrusions. The company offers pipe finished to customer specifications, or as hollows to allow custom finishing to meet requirements.

In-house processing includes centreless OD grinding, machining, ID honing, boring, hot stretch straightening, heat treating, pickling, annealing and non-destructive testing by certified inspectors.

Near net structural shapes, especially for aerospace to AMS 4935 or AMS 4928 that fit within a 300mm (12") circle

size are produced via hot extrusion. Two electron beam welders are operated for assemblies. Certifications include AS9100C, and various nuclear and other industry-specific qualifications.

Nu-Tech's products will be on display at Tube Düsseldorf in April, on stand 4E17.

Nu-Tech Precision Metals Inc – Canada
info@nutechpm.com
www.nutechpm.com

Special glass and glass-ceramic as materials of the future

The special glass manufacturer Schott demonstrated the versatility of glass and glass-ceramic materials at DGM Werkstoffwoche in Dresden, Germany, in September.

Highlights at the Schott booth were the Nextrema® glass-ceramic family for use in high temperature applications, as well as tubing, rods and capillaries for various technical applications. Both product groups offer product developers not only special functionality, but also new design options.

The Nextrema glass-ceramic combines the advantages of technical glass (high transmission, resistant, non-porous surfaces, and the possibility of cost-effective production of large plate formats) with thermal resistance up to 950°C and endurance of thermal shocks of up to 800°C.

It is available in six different versions that differ in technical characteristics as well as in colour, enabling engineers and designers to develop new product ideas, such as infrared applications, high-temperature furnaces or grills. Material thickness ranges from 2 to 8mm.

The second highlight that Schott showcased at DGM Werkstoffwoche was its portfolio of tubing, rods and capillaries with different wall thicknesses and inner diameters for use in technical applications. They can be made from 60 different types of glass and can be

Schott's Nextrema material portfolio includes six glass-ceramics

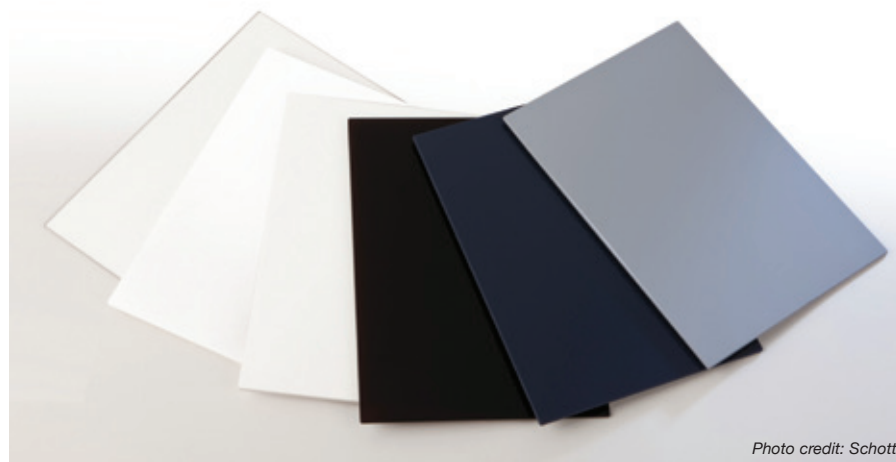
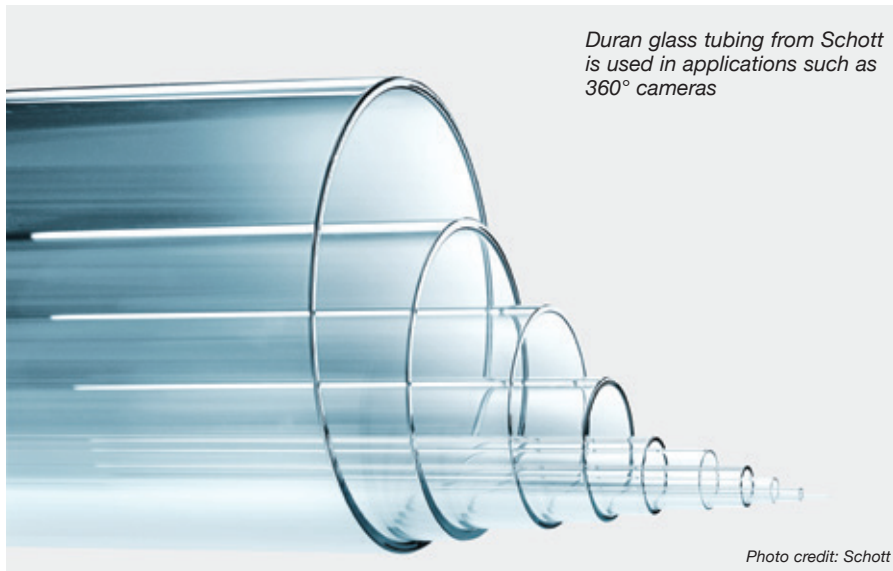


Photo credit: Schott



Duran glass tubing from Schott is used in applications such as 360° cameras

Photo credit: Schott

enhanced by applying special coatings, for example.

Schott AG – Germany
www.schott.com


Schott also presented its oval glass tubes made of Conturax® borosilicate glass for photobioreactors that accelerate the growth of algae quite significantly. In another example, Duran® glass tubing from Schott allows for 360° camera technology to be used for online streaming.

Schott has more than 130 years of development, materials and technology expertise, and offers a broad portfolio of products and solutions for industries including home appliance, pharmaceutical, electronics, optics, automotive and aviation.

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TUBE 2016, Duesseldorf, April 4-8 2016, Hall 3, Stand Number D48

Successful performance at Shoshone scheme

Auma, an electric actuator manufacturer offering modular device design, retrofit abilities and training support, has provided comprehensive services at the Shoshone Municipal Water Treatment Plant located in Cody, Wyoming, USA.

An initial assessment was conducted by Auma Actuators, Inc and valve supplier Intermountain Valves & Controls (IVC). The scope of the project that was determined included replacing existing actuators and retrofitting more than 50 Auma intelligent actuators to butterfly valves.

Auma services included the on-site mounting of actuation technology and training of Shoshone operatives. Factors in the selection of Auma products included the company's modular concept, which simplifies on-site upgrades; the ability to combine the actuators with 7m-long extensions submerged in the

filter basin; and the availability of GS part-turn gearboxes, which automate large-scale butterfly and ball valves.

Managed by the Shoshone Municipal Pipeline – Shoshone Municipal Water Joint Powers Board, the water treatment plant has a capacity of 23mn cubic metres per annum. The pipeline, supported by contractors including Auma, works to exacting standards to operate and maintain its plant and transmission pipelines to produce a reliable and cost-effective water supply that exceeds US EPA standards.

Auma Actuators Inc is headquartered near Pittsburgh, Pennsylvania, USA. Full Auma services are provided, backed by a network of support throughout North America, with regional offices based in the Northeast, Southeast, Midwest, Gulf Coast and West Coast. Representatives and distributors are



Auma intelligent actuators retrofitted at the Shoshone Municipal Water Treatment Plant

located throughout the USA, Canada and Mexico.

Auma Actuators Inc – USA
 mailbox@auma-usa.com
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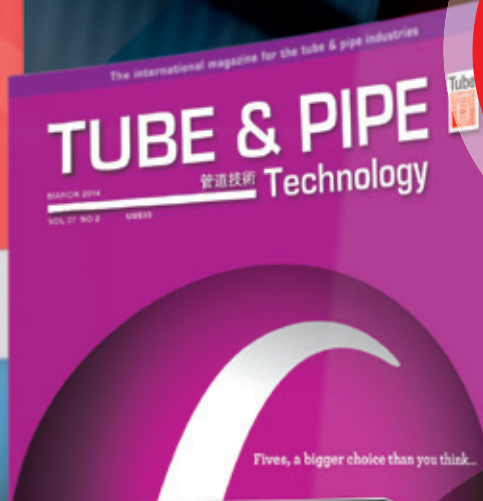
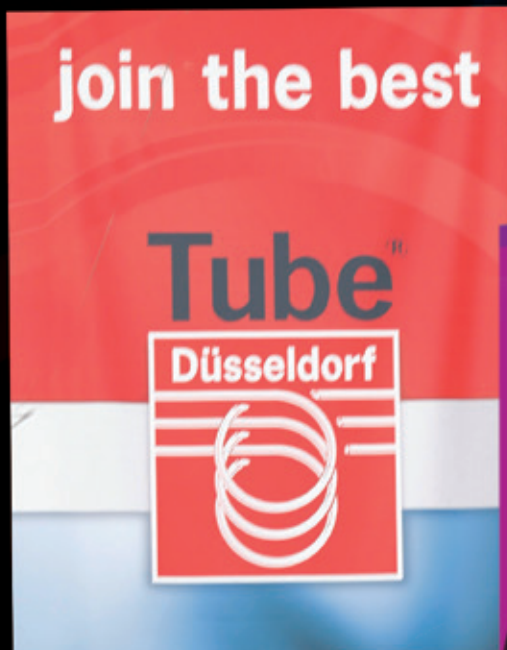
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PAS 1075 and valve testing

The German plastics centre SKZ is expanding and optimising its test portfolio with valve testing and test methods for slow crack growth of polyolefins.

Increasing demands on plastic pipes and the resulting further developments pose new challenges for testing technology. Particularly with regard to the testing of pipes for their suitability for alternative installation methods, such as installation methods without trenching, new questions arise concerning the resistance to external point loads or a service life of up to 100 years.

In the publicly available specification (PAS) 1075 these specific features are taken into account, and by means of corresponding tests it is ensured that the pipes available on the market comply with the relevant quality standards.

SKZ is interested in offering appropriate tests, and has therefore applied to DAkkS for the accreditation to perform point loading tests, penetration tests, and thermal ageing tests using the flow method.

With the strategic acquisition of the valve testing business segment of the testing laboratory of SVGW, SKZ



SKZ provides advanced testing services

has expanded its testing portfolio by another major test area. The investment will enable SKZ to test component properties of valves for water and building installations according to current national and international standards.

The testing range comprises hydraulic, mechanical, bending moment, tightness and long-term tests, as well as pressure loss, volume flow rate and water hammer tests, including pipe coupling and hydrant tests. The company can

also carry out corrosion tests, and chemical analyses of the valve materials. Testing of heavy metals in the valve material and of galvanic coating is also possible.

TeConA GmbH, the testing, quality assurance and certification division of SKZ, changed its company name to SKZ – Testing GmbH, to help position SKZ and its service range more clearly.

FSKZ eV – Germany
www.skz.de

Push connect water heater connectors to simplify installations

BrassCraft Manufacturing has launched its new push connect water heater connectors, the Speedi Plumb® Plus Polymer Braid and ProCoat® Coated Stainless Steel connectors.

The Speedi Plumb Plus Polymer Braid connector features a patented design that helps reduce kinking or crimping. The polymer braid is engineered to resist corrosion from most household cleaning products.

The ProCoat Coated Stainless Steel product offers corrosion resistance from most harsh chemicals that cause

pinhole leaks. It has 3/4" full flow internal diameter for maximum performance and is 100 per cent leak-tested for performance and reliability.

Other features shared by both products include compatibility with copper, PEX and CPVC connections; no soldering or glue is needed for installation; and a pre-inserted tube stiffener aligns with the connector tubing to produce a long-lasting and watertight seal.

“With all of our products we think about how we can make the plumbing professional’s job easier and more



ProCoat Coated Stainless Steel connector

efficient,” said Audrey Lang, product manager of BrassCraft Manufacturing.

“These push connect water heater connectors are a great example of this philosophy.”

BrassCraft Manufacturing – USA
customerservice@brasscraft.com
www.brasscraft.com

New instrumentation display

UK flowmeter specialist Litre Meter has launched a two-wire lightweight flow indication display suitable for hazardous

areas. HART compatible and with a 316 stainless steel enclosure, it is expected to find application in the oil and gas industries, particularly for chemical injection systems.

FlowPod from the installation or having to perform difficult on-site calibration curve changes.

Data logging capabilities enable recalibration to be tailored to the actual working flow rate of the meter.

All FlowPods are calibrated at the factory. For field recalibration most customers will be able to use a HART programmer or remove the memory card and use a laptop. Where this is not possible the integrated magnetic switches allow for simple programming and menu selection, without having to power down.

The new FlowPod can be supplied either direct-mounted to the flowmeter or remote-mounted using suitable armoured signal cable or conduit. The display can be adjusted to any angle. The FlowPod is housed in a slim, 4" diameter, explosion-proof stainless steel enclosure, and is ATEX, IECEx and CSA (USA and Canada) approved.

Litre Meter – UK
sales@litremeter.com
www.litremeter.com

At just two-thirds the diameter of its previous iteration, the new FlowPod is one of the smallest flow displays on the market. It is an evolution of the existing large display to provide additional functionality, which has been requested by users. This functionality includes the facility to display flow rate, total flow and analogue rate. The backlit display, which features high contrast ratio, large flow rate indication and totaliser indication, enables the display to be read at distance in poor light conditions.

Display features include five-digit rate display giving the real time flow rate, the option to display flowrates and totals in many different units and flow range usage. It has a removable memory card for programming, and offers 4-20mA, HART and pulse outputs as standard.

Calibration modes can be easily switched without having to remove the



Litre Meter's new two-wire flow indication display is HART compatible and suitable for hazardous areas

ITA presents lifetime achievement award

The International Titanium Association selected Walter E Herman as the recipient of its prestigious 2015 Lifetime Achievement Award, honouring his many accomplishments during a distinguished 60-year career in the titanium industry.

Mr Herman's résumé traces the early development of the titanium industry, from the Cold War days of the 1950s and through the decades of commercial development. Those who nominated him for the Lifetime Achievement Award provided glowing reviews of his extensive contributions to the titanium industry. Gordon Armitage, president, Hi Tech Alloys Inc, cited Mr Herman's contributions related to development of the first industrial electron beam cold hearth melting process (EBCHM) for removal of high- and low-density inclusions from recycled titanium: "Walt played a key role in the development of



Titanium cladding at the Clyde auditorium, Scotland

EBCHM to minimise the occurrence of melt-related defects in titanium alloys. This was extremely important to the aerospace engine industry due to some rather spectacular failures of disks on aircraft engines."

For new and imaginative uses for titanium, Mr Armitage pointed to Mr Herman's work in the development of corrosion

applications for titanium used in the chemical and metal finishing industry. "One of the most significant technical achievements Walt achieved was the development of corrosion applications for titanium for the plating industry."

International Titanium Association – USA
www.titanium.org

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Demand for plastic pipe to reach 19.3bn metres in 2019

World demand for plastic pipe is projected to rise 6.7 per cent per annum though to 2019, to 19.3bn metres. Strong construction activity, particularly in the large markets of China and the USA, will boost demand as plastic pipe sees intensive use in both building and non-building construction applications.

Plastic's performance, cost and installation advantages will also spur its increasing use over competing pipe materials such as concrete, copper and steel. PVC is the leading resin used in plastic pipe.

The energy, agriculture and industrial sectors tend to be less intensive users of plastic pipe than construction. However, improvements in technology and plastic materials have helped plastic pipe increase its share in many of these markets. These and other

trends are presented in *World Plastic Pipe*, a new study from The Freedonia Group industry research firm.

Although construction spending will decelerate in China, the world's largest plastic pipe market, demand for plastic pipe in the country will still rise over nine per cent annually through to 2019.

In the USA, the world's second largest market, continuing recovery in construction spending and housing completions will support rapid advances for plastic pipe demand.

Growth in plastic pipe demand will also be robust in the developing countries of Africa, Asia and South America due to efforts to expand access to potable water and sewage systems. According to analyst Mariel Behnke, "The market opportunity for water

and sewer systems is large, as a considerable share of the population in these regions does not have reliable access to drinking water supply or improved sanitation."

The comparatively low cost and ease of installation of plastic pipe gives it advantages over other pipe materials in these regions.

Advances in plastic pipe demand in the more developed regions of Eastern and Western Europe are expected to accelerate through to 2019, supported by recovering construction spending. Demand in both regions contracted following the global economic recession, but began to recover in 2013.

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The use of exotic piping materials

In the mining industry, erosion and corrosion are troublesome factors leading to unplanned shutdowns, production loss and frequent unexpected replacement of materials, particularly piping and fittings.

The use of exotic piping materials in place of the relatively low-cost carbon steel, regardless of the much higher cost involved in procuring and installing such materials, is an efficient solution to overcome such erosion/corrosion problems, by reducing down time and processed material loss along with reducing maintenance, manpower and equipment utilisation, and increasing the duration between planned maintenance. High alloys such as Monel, Incoloy and super duplex are used.

Mechanical Engineers & Contractors' experience with mining companies is that slurries would always cause high erosion to carbon steel, and in the presence of elevated temperatures the erosion rate will dramatically increase. The use of different types of internal coatings did not prove to be effective or efficient. However, the use of internal rubber lining, where piping size permits, is more effective than coating, and also for vessels such as crystallisers, agitators and tanks.

Mechanical Engineers & Contractors (MEC) – Jordan
info@mecjo.com
www.mecjo.com

Span assessment expertise delivers savings to oil and gas industry

Jee Ltd, a multi-disciplined subsea engineering and training firm, completed more than a thousand specialist span assessments in 2015, delivering major cost-savings by avoiding remediation work.

Graham Wilson, head of late life at Jee Ltd, commented, "Pipeline spans are formed due to an uneven seabed, scour or sandwaves, and can cause integrity issues with potential catastrophic and costly results. These spans can be susceptible to failure through fatigue and, as span length increases, the risk of fatigue damage due to direct wave loading or vortex-induced vibrations (VIV) also increases."



Graham Wilson, head of late life at Jee Ltd

Jee's engineering team has a proven track-record for providing pipeline span assessment to the global oil and gas industry, with systems in place to run span analysis quickly and accurately.

Mr Wilson continued, "We have an in-depth understanding of the codes and standards and appreciate their limitations, allowing us to effectively challenge them without adversely affecting safety. By doing so we can remove conservatism and increase the allowable span length, minimising the remediation work required which can lead to expensive operations and potentially create new issues. When intervention work is necessary, we are pragmatic in our approach and ensure offshore vessel time and activities are optimised to maintain economical operations."

In addition, Jee has developed an innovative span monitoring kit that monitors the motion of spans and the associated environmental conditions. The data collected can be used to prove that VIV is not occurring when predicted by the design codes, removing the need for costly corrective work.

Alternatively, the kit allows the occurrence of VIV to be detected, providing supporting evidence of the need for intervention. The kit can also be used to provide assurance that remediation measures are having the desired effect.

Jee's capabilities and integrated services span the whole life-of-field, including design, integrity management, pigging, late life and training for the global oil, gas and renewables industries.

Jee Ltd – UK
info@jee.co.uk
www.jee.co.uk

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Novel approach to identify corrosion problems

Corrosion protection provided by metalworking fluids remains a concern during the manufacturing of tubular goods. Since pipe products are vulnerable to multiple conditions that can lead to oxidation, corrosion can unknowingly occur in production or during storage. As a consequence, the pipe producer is at risk for financial losses in non-conforming products, scrap and/or rework costs.

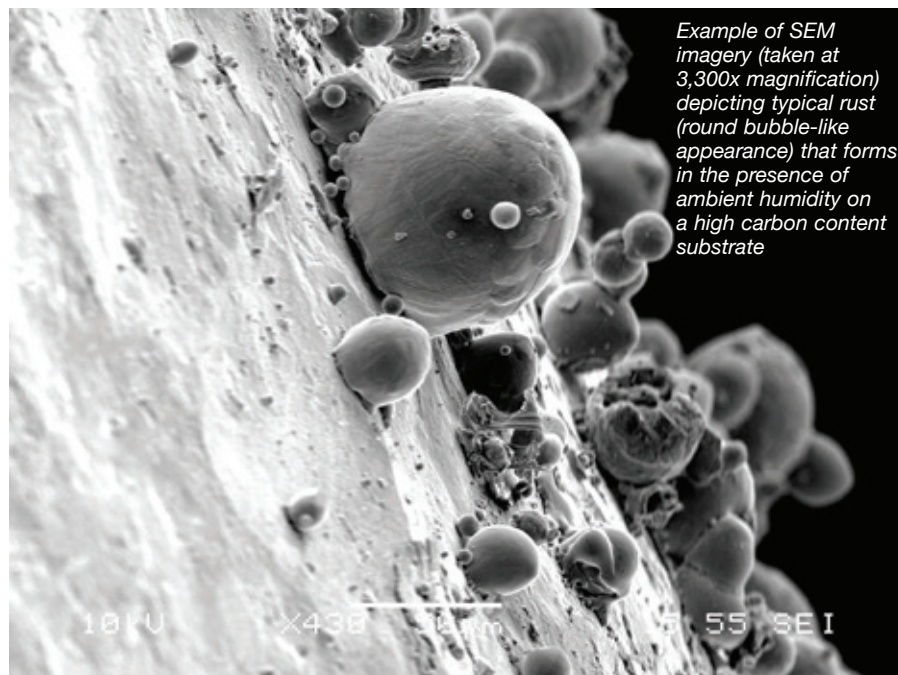
Challenged to investigate the sources of pipe corrosion, Quaker Chemical

Corporation addressed the issue with scanning electron microscope (SEM) and energy dispersive spectroscopy (EDS) technology. Quaker's research efforts have resulted in a methodology to pinpoint corrosion through visual and chemical composition data.

Providing insight at a molecular level, the findings from the SEM/EDS give clues on how to rethink the manufacturing process and how to adjust the metalworking fluids to tackle rust prevention. The SEM imagery

produces characteristic visuals that allude to corrosion stemming from causes such as trapped moisture, surface contamination, scale, humidity or carbon levels.

The EDS analysis, produced by X-radiation, generates a wavelength spectrum to indicate the present levels of chemical elements. Depending on the atomic and weight percentages, the corrosion trigger can be inferred and possibly resolved by a tweak in the process fluid properties to inhibit or eliminate the problems upstream.



Quaker says that its study in SEM/EDS technology is a helpful tool in understanding corrosion phenomena. "When performed carefully and with proper interpretation of the results, advanced surface analyses with this tool can largely contribute to solving corrosion issues in tube and pipe operations," commented Karl Kunkel, North American industry business director – metalworking.

Quaker Chemical is a provider of process fluids, chemical specialities and technical expertise to a wide range of industries, including steel, aluminium, automotive, mining, aerospace, and tube and pipe.

Quaker Chemical Corp – USA
info@quakerchem.com
www.quakerchem.com

Press fittings for sprinkler fire extinguishing systems

Eurotubi Pressfittings are a quick and reliable choice to build sprinkler fire extinguishing systems, with a wide range of pipes and fittings, in diameters from 22 to 108mm, approved with VdS certification.

Building a sprinkler fire extinguishing system is often associated with long and complicated joint techniques such as groove fittings or soldering. Using

Pressfittings makes building this type of system faster and less complicated, whether in AISI 316L stainless steel or carbon steel.

The Eurotubi Pressfitting range for fire extinguishing systems has many shapes available, from sleeves to more complicated bypasses. For exchangeability with other joint systems, there are numerous hybrid components in the

catalogue that have both screw fittings and groove fittings.

These are important in building sprinkler fire extinguishing systems, as they were the most used type of fitting before the arrival of the press fitting.

Eurotubi Europa Srl – Italy
info@eurotubieuropa.it
www.eurotubieuropa.it

Smart Water Valve saves Co-op City \$350,000

Almost three years ago, Co-op City in the Bronx, New York, the largest public housing development in the USA, was seeking a simple, low-maintenance way to reduce its water use and cost.

Barrett Green Management provided a proprietary product that would save Riverbay Corporation, Co-op City's owners, 10 per cent on its water bill with virtually no maintenance.

A Barrett Green Smart Water Valve™ was installed in one of its 'Tower' buildings, which serves three 33-storey high-rise residential buildings among Co-op City's 35 buildings.

The valve has since saved Co-op City more than \$350,000 since its installation. Riverbay Corporation is said to be pleased with the significant

monetary savings, lack of maintenance, and the fact that they are preserving water and the environment with the valve.

Barrett's managing director, Barry Korn, explained, "The Barrett Green Smart Water Valve functions as a check valve, using our proprietary technology to remove air from the water, and better control its flow."

Water contains 10 to 20 per cent air, depending on its temperature and pressure.

Eliminating air improves water flow, reduces the amount of water used, and therefore reduces the water bill. Mr Korn added, "The valve is made from 100 per cent 'food grade' stainless steel, which makes it safe for drinking water."

The valve is installed within a building's main water pipe. Because it is usually placed in the basement, there is no negative impact to the residents' apartments. It is made to aircraft-level tolerances for smooth and maintenance-free operation.

The valve costs the building management nothing. Instead, Barrett Green Management receives a portion of the savings resulting from the valve's use. With water rates rising consistently in the USA, averaging 4 per cent over the past three years in New York City, owners and property managers have an opportunity to offset these price increases.

Barrett Green Management – USA
bkorn@barrettgreen.net
www.barrettgreen.net

Tailor-made tube specialist

CSM was founded in 1981 as an engineering firm for the design and manufacture of machines and production lines for tubular heating elements.

In 1983 a division for the production of stainless steel tubing was created, offering to the market high-quality TIG welded stainless steel tubing in small diameters and thicknesses, supplied cut-to-length as required by the customer.

Starting with one production line in 1983, with a yearly production of 2.5mn metres in three diameters, production has now increased to 45mn metres per year with sixteen production lines; tube diameters range between 5 and 28mm, in thicknesses from 0.3 to 1.5mm.

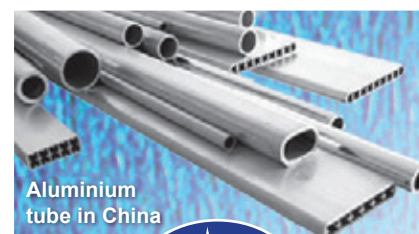
In addition to wider ranges of diameters and thicknesses, since 2001 CSM Tube has also supplied heat-treated tubing, either in coils or in straight bars cut to length up to 18m. CSM Tube operates in compliance with the international standards foreseen for the different types of product and different final uses. Pressure testing is carried out on 100

per cent of the heat-treated tubes supplied in coils. Alloys normally used are austenitic, AISI 300 series and refractory nickel high content (alloys 800 – 825 – 840, alloys 600 – 601).

The company states that its constant growth has been achieved thanks to the quality of the supplied products, service, competitiveness and continuous technological innovation. The constant search for new markets, new fields and new specific requirements to satisfy has been decisive. The high technological level of the production lines allows CSM high flexibility with low costs.

CSM Tube began the production of stainless steel tubing for heating elements and since 2003 has successfully supplied products for use in a variety of sectors, including tubing for heat exchangers, domestic and industrial boilers, beer and soft drinks coolers, and components for the automotive sector.

CSM Tube – Italy
info@csmtube.com
www.csmtube.com



Aluminium tube in China



Aluminium precision tube made in China
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Tel: +86 510 85069506
Fax: +86 510 85061423
E-mail: sales@hatal.com.cn

www.hatal.com.cn

Quick purging pipes for perfect welds

Waiting for pipes to be purged ready for welding can take many hours, depending on the diameter of the pipe being welded and the method chosen for purging.

Huntingdon Fusion Techniques (HFT) designs and manufactures a range of QuickPurge® inflatable pipe purging systems that reduce waiting times. The company was recently tasked with a special project in the USA, where pipes with 90° elbows, up to 54" OD, were required to be purged.

Georgia Gascoyne, CEO at HFT, said, "We manufactured QuickPurge systems with longer sleeves so that they could easily be pulled around the sharp bends in the pipework. The welders were previously spending half a day

purging the pipe, which was costing a considerable amount in time and gas costs. With the help of the QuickPurge the pipe was purged in just 55 minutes. The dramatic savings in time and gas paid for the system in just one weld."

QuickPurge has an additional gas input line, which allows extra purge gas to be introduced, achieving a faster purge down to the lowest oxygen levels. QuickPurge is suitable for purging tube, pipe and pipeline joints over 6" diameter, where oxygen levels are required to be as low as 100 parts per million (ppm) or less.

HFT's design means that zero colour welds will be achieved, and there will be no loss of corrosion resistance caused by oxidation.



HFT's QuickPurge inflatable pipe purging system

Using IntaCal® combined with the integrated PurgeGate® device makes it possible to safely inflate the dams with argon gas, for purging the space between the dams where the weld joint is located.

With PurgeGate, burst dams are prevented in the event of undue pressure increase or accidental flow increase of the purging gas.

All systems are manufactured as standard with a hose for connecting a Weld Purge Monitor®, which can read oxygen levels down to as low as 10 ppm, depending on the model. Materials used in the manufacture of QuickPurge are resistant to the higher weld temperatures present, and they do not outgas, preventing weld contamination.

For pre-heated chrome steel and high strength stainless steel pipe joints, HFT designs and manufactures the HotPurge™ range for a higher and longer temperature exposure.

Huntingdon Fusion Techniques – UK
hft@huntingdonfusion.com
www.huntingdonfusion.com

Preventing pipe damage during handling and transportation

In the global supply chain of pipeline projects, pipes travel long distances and are stored, handled and transported multiple times before they arrive at the construction site. This handling, storage and transportation of pipes carries risks of damage to the pipe or its coating, quality loss, corrosion and even accidents.

Dhatec, a specialist in line pipe logistic solutions, delivers products to prevent pipes from being damaged, from the production mill to the construction site. This includes safe handling, as well as transport and storage of pipes during the whole supply chain of the line pipe.

The product categories are divided into coating, preservation, handling,

transport, storage and construction. These segments contain pipe closure, bevel protection, cross bracing, flange protection, pipe handling, anti-corrosion, pipe transport and storage, and pipe coating.

In addition to supplying products, Dhatec is a knowledge partner for support, advice and training to improve logistic operations in the supply chain of line pipes anywhere in the world. It is an expert in optimising line pipe logistics and reducing associated costs within pipeline projects.

The organisation operates from a client-centric perspective, in which it recognises that each situation is different and needs its own approach. In this way



Dhatec can offer optimal service, fitting the client's needs and wishes.

Dhatec will be exhibiting at Tube Düsseldorf, on stand 4G18.

Dhatec – Netherlands
info@dhatec.nl
www.dhatec.nl

Critical permeability of valves and tubes

Valves, filters, tubes and pipes can suffer from the often-critical issue of vapours and gases permeating through the materials they are made from. From the massive valves on an oil pipeline to tiny carbon fibre tubes, this can cause enormous problems, damage and product failure. Even by itself, water vapour is the world's most damaging contaminant and causes billions of pounds of damage every year.

Permeability specialist Versaperm provides solutions through its wide range of highly sensitive permeability meters, which can check both the materials and the complete unit. Just testing the materials can be misleading, as the manufacturing process can change the vapour permeability of materials by up to 400 per cent, so the finished component also needs to be tested. The latest range of instruments is both precise and simple to use. In some cases, results can be produced in as little as 30 minutes, as opposed to the days or even weeks needed by traditional gravimetric testing. Accuracies are typically in the parts-per-million range (parts-per-billion for some gases and materials), and the equipment is suitable for general testing as well as QC, lab and system/product development work.

Versaperm Ltd – UK
info@versaperm.com
www.versaperm.com

Steel pipes and tubes from Pakistan

International Industries Limited (IIL) is Pakistan's largest manufacturer of galvanised steel pipes and precision cold rolled steel tubes. IIL also manufactures premium quality plastic pipe and stainless steel tube.

IIL is included in a select list of blue chip companies on all the stock exchanges of the country and has won numerous accolades at various prestigious forums. Having exported over 90,000 tons of product in 2014-2015 (and over 750,000 tons to date), IIL has a credible export pedigree, and an ever-expanding footprint in 50 countries across six continents.

IIL manufactures premium quality galvanised iron pipe, cold rolled steel tubes, API line pipe, LTZD profiles and scaffolding tubes. It is also introducing large diameter structural pipes suitable for structural applications and large diameter water and gas lines. The company has also widened its portfolio by adding medium and high density polyethylene pipe, cross-linked polyethylene pipe and PPRC pipes to its product offering.

See IIL in Hall 7-0 at Tube Düsseldorf 2016.

International Industries – Pakistan
Website: www.iil.com.pk

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Join the best – welcome to the world's leading trade fair for the tube industry! Those who wish to find comprehensive information about the latest innovations in tubes and pipes, manufacturing, processing machinery and tube accessories need look no further. It can all be found here at the world's most important exhibition – the meeting point for international experts, specialists and global market leaders. **Special focal point at Tube 2016:** Plastic tubes. A special area is reserved for them, because the question of materials is becoming more and more important.

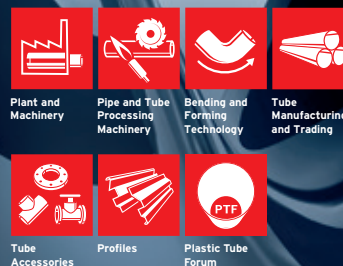
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Messe
Düsseldorf

Welding equipment and techniques for extended network documentation

The main goal of a grid owner is the reliable and secure supply of water or gas to its customers. This can be achieved by the use of high-quality piping components, proper installation and operation by qualified personnel.

To ensure the water and gas supply, grid owners often maintain electronic welding protocols. They contain the welding parameters, product-specific data of the respective PE components (traceability code according to ISO 12176-4), details about the installer (installer badge according to ISO 12176-3), and additional information about the site, which are entered either manually or via barcode into the welding device. There is often no further evidence about the installation quality. Documentation after installation may be missing, and different documents will be stored in different systems.



MSA 4.1 electrofusion unit with full traceability and wireless scanner

new electrofusion devices of the MSA 4 family on site, the QR codes can be read with 2D scanners. The code contains information about the trace and welding barcodes, both stored in the welding record.

The GF Trace App allows an operator to match and save data to existing manufacturing information of specific QR codes: pictures, videos, site name, order number, welder ID, welding number and accurate GPS coordinates – everything deposited into the GF Web T & A (tracking and analysis) platform. The wireless scanner of the MSA 4.1 is a PDA, and already prepared for the GF Trace App, so smartphones are not required at the site.

The protocols extracted from the welding device are filtered, edited and transferred with an evaluation application to the GF Web T & A database by the installation company. According to the authorisation, a quality check or analysis of the components can be made during or shortly after installation on the web platform.

The system is also suitable for welding devices without a 2D scanner. The protocol format CSV enables the import of protocols from other devices into the evaluation software. On the web platform, unique QR codes can be generated for the identification of components that do not yet have them. This allows the application to be used for competitive or mechanical components such as valves.

After installation the data set can be extended with results from pressure tests or protocols of non-destructive testing. Maintenance cycles for valves and fittings can be deposited in the system to simplify network maintenance. This application completes network documentation, and keeps it up to date and available online, allowing grid owners to ensure compliance with their specifications.

GF Piping Systems Ltd – Switzerland
 info.ps@georgfischer.com
 www.gfps.com

Modern network documentation for PE piping is not limited to the provision of electronic welding records according to standards. It claims to depict the entire life cycle of all components of a piping system from manufacturing to installation and operation. New technologies ensure the safe and central storage of the documentation, while the information is available any time and anywhere.

Further data can be added at all project stages. The grid owner can extract analyses about the construction progress as well as the involved installation companies and used components. Welding records and pictures taken during installation are available as evidence for the quality.

GF Piping Systems has used QR codes for some time to identify ELGEF electrofusion fittings. In the manufacturing process each fitting is provided with an individual QR code for unique identification. During production the record is provided with current and specific data.

The code enables use of the GF Trace App on a smartphone. This service helps to secure the installation quality and support the documentation of the piping components. When using the

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Sensor mimics bats to detect dangerous structural cracks

An ultrasound sensor for detecting dangerous cracks in structures such as aircraft engines, oil and gas pipelines and nuclear plants has been developed by researchers at the University of Strathclyde, with inspiration from the natural world.

The transducer identifies structural defects with varying ultrasonic frequencies and overcomes the limits of other, similar devices, which are based on rigid structures and have narrow ranges. It is thought to be the first device of its kind.

The transducer developed at Strathclyde has a more flexible structure, based on a natural phenomenon known in mathematics as fractals. These are irregular shapes that recur repeatedly to form objects such as snowflakes, ferns and cauliflowers, making their structure appear more complex than it often actually is. The same concept lies behind the hearing system of animals such as bats, dolphins, cockroaches and moths.

Dr Tony Mulholland, a reader in Strathclyde's Department of Mathematics and Statistics and co-researcher on the project, said, "Fractal shapes and soundwaves are characterised by having geometrical features on a range of length scales. However, man-made transducers tend to have a very regular geometry, similar to a chessboard, and this restricts our

ability to use this technology in finding cracks and flaws in structures where safety is critical.

"The reason transducers are still made this way is mostly historical; they were usually made by an engineer cutting with a saw and their design was traditionally done by manufacturing, but now, with 3D printing, computer manufacturing and more laser technology, the transducer we have designed is increasingly viable.

"We know if we can send out soundwaves that are complicated and have different frequencies, we can work towards simulating what nature does. If there are defects in a nuclear plant or an oil pipeline, we would be able to detect

cracks that have a range of sizes and do so at an early stage. This device could not only improve safety but also save a great deal of money, as early detection means inspections don't have to be carried out as often. This is something industry is telling us it needs, and we are responding to that need."

Dr Mulholland was partnered in the study by Ebrahim Algehyne, a research student at Strathclyde's Centre for Ultrasonic Engineering. The research has been published in the *IMA Journal of Applied Mathematics*.

University of Strathclyde – UK
 corporatemail@strath.ac.uk
 www.strath.ac.uk



Ebrahim Algehyne (left) and Dr Tony Mulholland

MRC announces global rebranding

MRC Global Inc, a distributor of pipe, valves and fitting products and services to the energy industry, has initiated a rebranding of its brands. As part of these rebranding efforts, the company has adopted a new logo to represent its global brand. While the company will continue to operate with sub-brands when appropriate, its primary identity will be the MRC Global brand.

"We have been in business for nearly 95 years and have experienced a significant amount of growth," said MRC Global

chairman, president and CEO Andrew Lane. "Through it all, our core values have given us a platform for success. Our brand and new logo reflect both this solid foundation and our promising future."

The change will be most notable in the USA. The company's US business was previously known as McJunkin Red Man Corporation, after the 2007 merger between McJunkin Corporation and Red Man Pipe and Supply. It will now operate as MRC Global (US) Inc.

"At its core, MRC Global is all about service," according to Rory Isaac, senior vice president – business development. "This rebranding is our promise to continue the legacy of integrity, dependability and customer service that our founding families instilled in the heart of our company." With the logo change, the company has also officially introduced the use of its corporate tagline, "We Make Energy Flow™."

MRC Global Inc – USA
 www.mrcglobal.com



Düsseldorf, Germany

4-8 April 2016



Venue

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Organisers

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www.messe-duesseldorf.de

Opening times

Monday to Thursday: 09:00am – 06:00pm | Friday: 09:00am – 04:30pm

The world's largest exhibition for the tube and pipe industries



To thousands of producers, designers, engineers, suppliers and customers in dozens of countries Düsseldorf means one thing: the biennial International Tube and Pipe Trade Fair, the world's biggest and best showcase for the tube and pipe industry and those serving it.

Tube and pipe manufacturers, committed to realising maximum productivity from existing plant and equipment while actively weighing the benefits of upgrading, are well acquainted with this double perspective.



The most renowned names in the industry worldwide are there in force. But some names will be encountered for the first time. The organiser's experience suggests that by the time the next edition of Tube is in preparation many of these companies will have joined the A-list.

Those heading for Düsseldorf for Tube 2016 will meet old friends and make new ones. They will strengthen their command of current industry practice and explore tomorrow's methods today.



Photos courtesy of Messe Düsseldorf GmbH

www.tube.de



Steel tubes and pipe

Among high-volume engineering materials that have withstood the test of time, steel leads the pack. And in 2016 steel, close to 100 per cent recyclable, satisfies a major concern of our age – responsibility for the environment.

High among the premium products of this most useful material is the stainless steel tube: corrosion resistant, leakproof, hygienic. At the end of a waste incineration process it can be reclaimed from the ashes. A discarded stainless steel tube that escapes recycling will do no harm, either to soil or to ground water.

At the same time, when life cycles are factored into materials costs, a tube fashioned of satin-smooth or mirror-bright stainless steel will very often present the least expensive option. But that is very old news – at least a century, and counting – to customers of the companies whose products and services are reviewed here.

Steel supplier to SKA MeerKAT project

South Africa was awarded the bulk of the SKA (Square Kilometer Array) telescope project, and Robor subsidiary Tricom Structures was selected as the fabricator of the back-up structure (BUS) of the antenna for the MeerKAT project, which is the precursor to the SKA project.

The backup structure weighs around 25 tonnes and consists of 6,000 different components that have to be perfectly aligned to ensure the structure can accommodate the highly accurate and sensitive reflector panels for MeerKAT. The components that make up the elliptically shaped support structure are either welded or bolted into larger assemblies.

Tubular steel was the material of choice for this application as it provides the right characteristics for the demanding specifications. The tubular steel components were manufactured and precision laser cut by Robor.

The first 12 months of the project were essentially a prototyping phase with many design revisions along the way. A prototype was delivered in 2014 and to date a total of six units have seen their way to the Carnarvon site. The last of

the pre-production models has been dispatched, and Tricom is expected to deliver more units on a monthly basis, with a total of 64 units planned for completion by the end of 2016.

Established in 1922, Robor is a manufacturer and supplier of welded steel tube and pipe, cold formed steel profiles and associated value added products.

The company also supplies, distributes and adds value to carbon steel coil, plate, sheet and structural profiles.

Tricom Structures Ltd became part of the Robor Group in July 2015, and is now a 100 per cent subsidiary of Robor Energy, a division of the Robor Group. Tricom's capabilities and services, which consist of engineering and design, manufacturing, product development and support, packaging and shipping, including warehousing, will provide Robor with additional opportunities within various markets,

including renewable energy, telecom, powerline and most structural businesses.

Tricom also has a dedicated engineering and design team that works to various international design standards.

Robor has long been encouraging the use of tubular steel sections in South Africa, not only for their aesthetic appeal but also because they can meet the exacting quality demands of world-class projects.

Robor – South Africa
info@robor.co.za
www.robor.co.za



Steel tube stockholder

European Tubes Ltd, a steel tube stockholder specialising in seamless tubes, was first established in 1988. The initial concept was to purchase material from Europe to supply to the domestic market, hence the name European Tubes.

The company has now been trading for over 25 years. The business has grown and developed over the years but the core values remain the same: the company strives to offer the best solution for its customers, with a main focus on offering a quality product at a competitive price.

Being a family-run, independent company means it is not tied to

any mills. This allows it to purchase material from any source, anywhere in the world. Sourcing material in this manner means the company can choose the supplier that best suits the needs of customers, in terms of specification, price, quantity and lead time.

A large range is held in stock, but the company states that it knows where to obtain items that are not in stock.

Being based in the North West of England provides easy access to the motorway network to service domestic customers, and the company uses approved logistics suppliers to service export customers.

In 2015 European Tubes updated its fleet of vehicles to ensure it can continue to offer a reliable delivery service.

The company also installed a new high-performance automatic saw with an inline deburrer, to assist with customers' growing demand for cutting services.

The new machine complements the nine other automatic saws that the company currently has in its fully stocked warehouse.

European Tubes Ltd – UK
sales@europeantubes.co.uk
www.europeantubes.co.uk

Multi-million pound contract on Maersk Culzean project

Tata Steel has been awarded a multi-million pound contract for the Maersk Culzean project, located in the UK central North Sea – one of the largest discoveries in the region in the last ten years.

The company will be responsible for providing more than 18,000 tonnes of

carbon steel welded line pipe, with the core element of the scope of supply encompassing a 53km 22" gas export pipeline that will tie into the existing central area transmission system (CATS).

The gas export line will be manufactured at Tata Steel's UOE LSAW pipe mill in Hartlepool, UK, with BSR Pipeline

Services, a joint venture with Tata Steel, providing the coating services.

Richard Broughton, commercial manager, exploration and production, Tata Steel, commented, "We worked very closely with Maersk to ensure that the stringent technical requirements were understood. Our technical capability to manufacture low temperature pipelines with tight dimensional control is well proven, and I am confident that this was a key consideration in the tender evaluation."

"Tata Steel has executed projects of this nature in the past with extreme precision and accuracy, ensuring achievement of project objectives and client goals. We are excited to be working with Maersk and Subsea7 to ensure the same outcome on this project."

Work was scheduled to start in September 2015, with an overall project duration for Tata Steel of 18 months.

Tata Steel Europe Ltd – UK
feedback@tatasteel.com
www.tatasteeleurope.com



Pair of approvals for Centravis

Centravis, a supplier of seamless stainless tubes and pipes, has been included on the approved manufacturers list of engineering, procurement and construction (EPC) company KBR.

"KBR is one of the world's top EPC companies, involved in a big part of the energy, petrochemicals, government services and civil infrastructure projects," said Waldemar Scheiermann, head of Centravis sales, America.

"Approval by KBR is an important achievement with regards to increasing our share in the US market, and yet another evidence of how Centravis meets the highest international standards."

KBR delivers projects in more than 70 countries, in the areas of design and construction of civil infrastructure (airports, railways, highways, water supply systems, and sanitation facilities for the mining industry), construction of oil and gas refineries, chemical and petrochemical industries, state institutions' service, and business ventures.

Centravis has also been certified and included on the approved manufacturers list of Alstom – a producer of railway transport and power equipment.

The French engineering company manufactures railway locomotives, various trains, trams, power equipment, and electrostatic precipitators for industrial production, and is probably

best known for its TGV and AGV series of high-speed trains.

"While Centravis is already working with a number of companies in the energy, construction, and oil and gas spheres, our inclusion into Alstom's purchase system is a very important step for the company's promotion in the European market," said Peter Gorban, head of Centravis's strategic marketing unit.

"Cooperation with Alstom not only helps strengthen our position in machine building, it will also raise the prospect of attracting additional project orders."

Centravis – Ukraine
www.centravis.com

TMK wins Gazprom tenders to supply premium tubular products

TMK, a producer of pipes for the oil and gas industry, took part in Gazprom tenders for premium tubular products. Following two public requests for proposals, TMK was announced the winning bidder in eight out of 13 lots.

TMK will supply to Gazprom more than 13,000 tonnes of seamless steel threaded connection pipes worth RUB 1.5bn.

Approximately 6,000 tonnes of TMK's products will be supplied to Gazprom

Dobycha Noyabrsk and utilised in developing the Chayanda gas field in Yakutia, destined to become a source of gas for the Power of Siberia pipeline, currently under construction.

TMK has also been awarded a contract for the supply of steel seamless oil pipeline tubes worth more than RUB 300mn.

By February 2016, 718 tonnes of these products will be supplied to Gazprom Dobycha Shelf Yuzhno-Sakhalinsk.

TMK operates more than 30 production sites in the USA, Russia, Canada, Romania, Oman, UAE and Kazakhstan, and two R&D centres in Russia and the USA. The company delivers its products along with an extensive package of services in heat treating, protective coating, premium connections threading, warehousing and pipe repair.

TMK – Russia
tmk@tmk-group.com
www.tmk-group.com

Steeling ahead

Chandan Steel Ltd (CSL) manufactures a wide variety of stainless steel long products, including round bars, angles, channels, flat bars, wires and flanges, and claims to be India's only fully integrated manufacturer of stainless steel seamless tubes and pipes.

With a history of manufacturing operations spanning three decades, the company exports to more than 60 countries worldwide. In 2011 CSL acquired the German flange manufacturing plant M/s Zapp Flanschenfabrik GmbH. The company's production facility for seamless tubes is supported by machines that comply with high quality standards. The steel plant at Umbergaon, India, has

an in-house integrated facility for the production of raw materials. Round bars of different austenitic, ferritic, Duplex and Super Duplex grades are produced by conducting quality checks at different stages of manufacturing, before finally being used by the seamless tubes division.

CSL uses the cross roll piercing method for production of defect-free seamless stainless steel hollows. The use of in-house produced billets with controlled cleanliness levels and OD peeling has helped in eliminating surface inclusions. Maintaining limited delta ferrite levels in the raw material has contributed towards avoidance of cracks. Rolling is carried out at minimum temperatures

to improve surface finish and eliminate rupture, and a process has been set of high-pressure water descaling of billet, before rolling. CSL regularly uses glass lubrication on OD and ID of billets during rolling, and has eliminated surface defects through minimisation of surface torsional and circumferential stress deformation by adjusting feed and cross roll angles.

Tube straightening machines ensure minimal residual stress level in the products, which is specifically required for critical applications.

Chandan Steel Ltd – India
exports.smls@chandansteel.net
www.chandansteel.net



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info@tecron-piping.com
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Setting a standard in hydraulic and instrumentation tubing

As a producer of steels for over 150 years, Sandvik maintains its position at the forefront of research and new product development.

“Whether you’re operating an oil rig or a petrochemical plant, the need to boost output without sacrificing safety is ever-present,” explained James Doughty, Sandvik sales manager, MENA region, for tube, core and standard products.

“In the big scheme of things, your choice of hydraulic and instrumentation (H&I) tubing might not seem critical, but it does make a difference in eliminating risks. No unscheduled downtime, no leaks, no accidents, and immediate

support if you need it. It’s what we call ‘The Sandvik Peace of Mind Standard’.

International standards such as ASTM and EN certifications help guide distributors and their buyers. The challenge is that many of these standards only provide recommendations for minimum or maximum levels.

“It really is important to ask yourself whether your supplier is providing the optimum quality for your particular application, even if the quality supplied is technically within the standard,” commented Mr Doughty.

As an example, Sandvik 3R60 H&I tubing has a minimum 2.5 per cent Mo

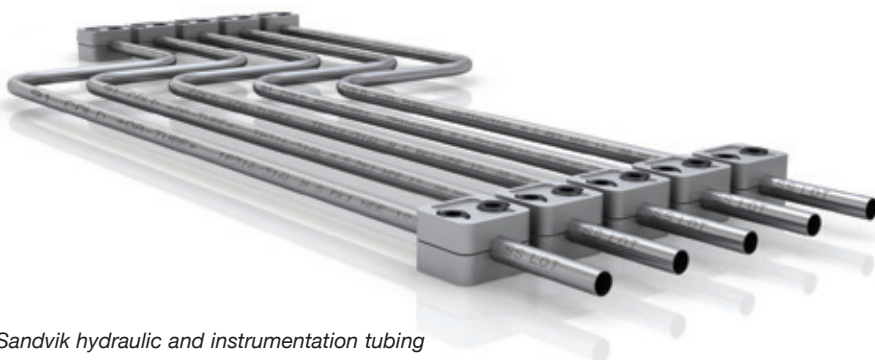
content for higher corrosion resistance, compared to the minimum ASTM standard of 2 per cent Mo. Sandvik looks beyond the minimum standard for H&I tubing, achieving higher pitting corrosion resistance, or PRE numbers.

“When customers invest in their assets, they don’t want unscheduled maintenance and ultimately production stops, the cost of which can run into millions,” added Mr Doughty.

“Our aim is provide producers with the lightest, strongest, most reliable H&I tubing possible. It is our consistent material quality and tight dimensional controls from batch to batch that ensure leak tight seals and operational longevity with reduced operational and lifecycle costs – something we can clearly demonstrate.”

The company stresses the importance for customers to source their H&I tubing from a recognised Sandvik distributor, to ensure they receive the expected product quality.

Sandvik Materials Technology – Sweden
www.smt.sandvik.com



Sandvik hydraulic and instrumentation tubing

Tata Steel’s new welded product range

Tata Steel has expanded on its new range of welded line pipe. Last summer, the company successfully delivered diameter submerged arc welded longitudinal (DSAWL) pipe through reeling method in the North Sea. The size range extension has expanded the range further, with the company producing a range of new X65 sizes, with a wall thickness of up to 38.1mm and a diameter up to 559mm.

In doing so, the company can now offer traditionally seamless pipe sizes in a welded form, the benefits of which include a decreased lead time in customer orders and improved fit up and weldability. The new products have already been deployed in the North Sea and in deep

water projects in the Gulf of Mexico. Martin Connolly, technical manager, Tata Steel, said, “This development marks another huge success for Tata Steel and for our customers. Our team has worked extremely hard to develop this new generation of welded pipe which will contribute to a lower cost of operation and ownership of assets for our customers.

“We have invested heavily in research, development and innovation and with the aid of our state-of-the-art finite element (FE) modelling and tooling programme this project has come to fruition. A recent installation of 140km of 457mm OD x 28.6mm wall thickness within deep water off the Gulf of Mexico

was produced in such a way that it was able to meet the manufactured requirements of DN OS-F101, should a reel installation be considered.”

Tata Steel recently invested in welding control technologies within its 42" UOE mill, including weld condition monitoring and digital front-end control of the SAWL welding process. Investment was also made to ensure the ovality of the pipe is as perfect as possible to the expander, with the business reviewing the full forming process including tooling design and a fully validated FE model.

Tata Steel Europe Ltd – UK
feedback@tatasteel.com
www.tatasteeleurope.com

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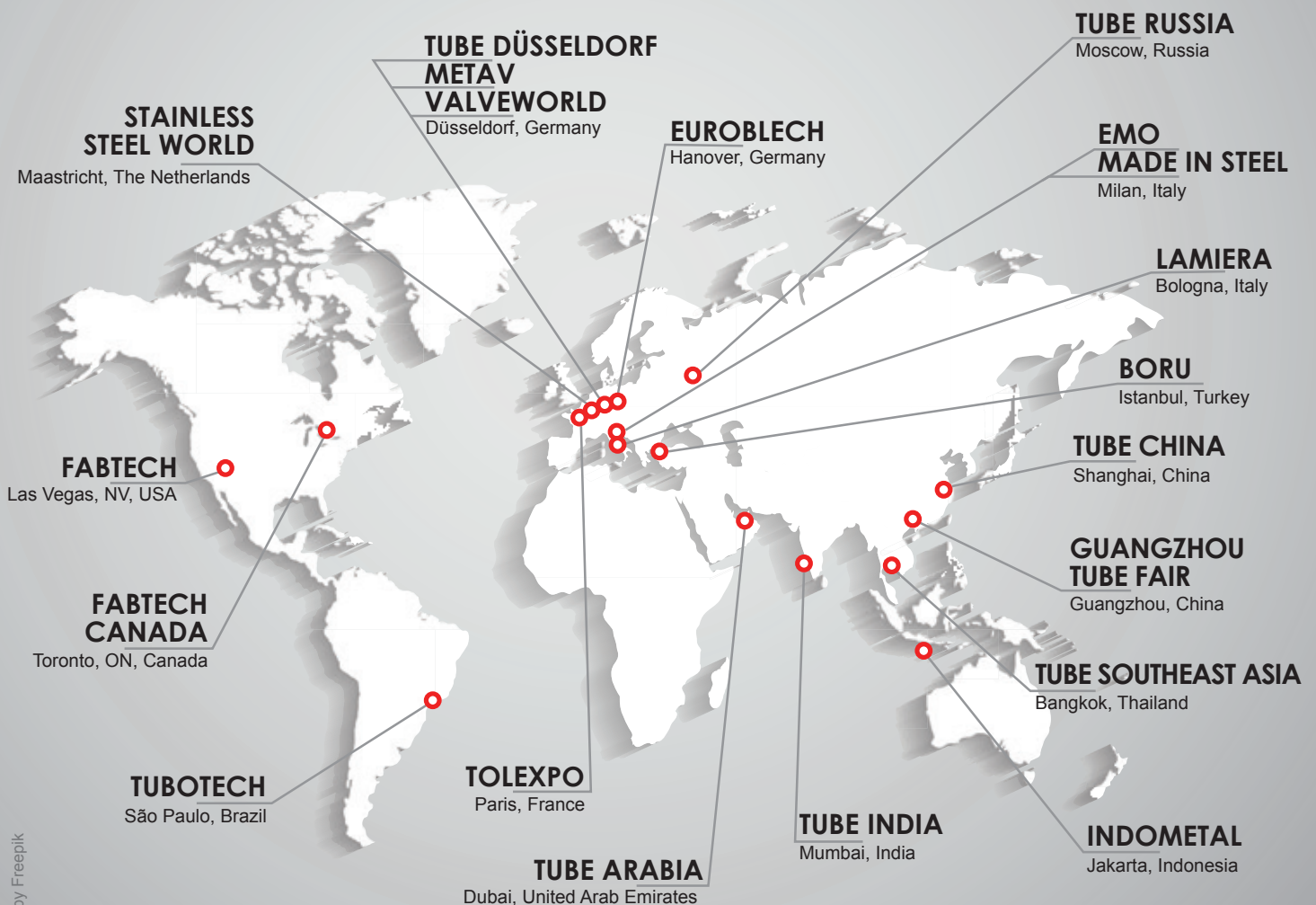
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Map by Freepik

New markets for stainless steel finned tube heat exchangers

Heat exchangers are used in many industries, including the emerging markets of fuel cell, waste heat recovery and micro power generation – all projected to be multi-million pound worldwide markets in the near future.

With specific requirements to deal with corrosive condensates and high temperatures, the use of stainless steel fins on stainless steel round or elliptical tubes, including 5mm small bore, challenges traditional matrix manufacturing methods, to reach required heat transfer requirements.

Power Fin Technologies is a UK-based exporter of finned tubes and finning machines. David Pierce, the company's owner and sole director, has been

in the heat transfer industry for over 40 years, and in that time he has bought, managed and sold a number of successful companies. He has also developed and patented eight related products.

Mr Pierce's original patented linear motor Elfin finning machine is capable of mechanically bonding any two metals.

This produces an interference, swaged fit between fins and tubes to form a durable matrix, which extends the surface area of the tubes to dissipate heat or cooling more rapidly, without deformation of the base tubes.

Infinity, the latest Power Fin machine technology, uses the same process but

positions multiple fins at once. They are claimed to be the only machines that can join any two metals with precision, using a clean, green process.

Stainless steel tubes are difficult to fin, especially if they are elliptical, thick walled, or micro bore tubes of 5mm or smaller diameter.

As the interference fit is achieved by the fin, all sizes and specifications can be accommodated with ease. The precision of manufacture also produces heat exchanger cores of consistent performance.

Power Fin Technologies – UK
info@powerfin.co.uk
www.powerfin.co.uk

Worldwide distribution

Tube Developments has supplied carbon steel pipes to many geographic locations around the world, from the Total Mariner project in the UK North Sea to the Petrobras Iracema project located offshore Brazil in the Santos Basin.

Since the company was founded 50 years ago it has grown into a leading stockist of seamless process pipes and high yield structural tubulars. At any one time, over 10,000 tonnes are kept in covered warehouses at

the company's premises in Glasgow, UK.

The company states that its reputation, gained for successfully supplying carbon steel pipes, has seen it working on complex projects in every country of the world.

Tube Developments continually updates its website to improve customer interaction and usability. It decided to add all vendor approvals and certifications, including quality

assurance qualifications that can be downloaded directly from the website.

The Project Award Schedule is a new feature that provides both existing and future customers with a greater insight into the company's activities. The schedule contains details of projects, customers, locations and materials supplied around the world.

Tube Developments Ltd – UK
info@tubedev.com
www.tubedev.com

Steel pipes and fittings

Hebei Senhai Pipeline Co, Ltd is a manufacturer and exporter of steel pipes and fittings. The company is located in Cangzhou City, China, about 120km from Tianjin seaport and airport, and 180km from Beijing.

The company produces large diameter, thick wall steel pipes by ERW, SSAW and LSAW, and various anti-corrosion

pipes. Seamless steel pipes range in size from 21.3 to 660mm, and 2 to 50mm wall thickness.

Square hollow sections and rectangular hollow sections are available from OD 20 x 20mm to 600 x 600mm, in wall thicknesses from 0.8 to 50mm. Anti-corrosion of steel pipes includes 3PE and 3PP outer anti-corrosion layer; single

and double FBE layer anti-corrosion; internal wall anti-drag coating of line pipe; polyurethane insulating pipe; and anti-corrosion by adding cement-and-sand layer. Steel butt-welding pipe fittings range in size from ½" to 72".

Hebei Senhai Pipeline Co, Ltd – China
sales@senhaipipeline.com
www.senhaipipeline.com



Pipe rehabilitation and repair

Is it worth it? This is the question that underlies every decision about rehabilitation and repair. As applied to pipe, the best answer is supplied by CIPP (cured-in-place pipe), the technology instituted in the United Kingdom in the early 1970s that accounts for over 100 million pipe feet installed worldwide.

A company prominent in the multibillion-dollar international CIPP industry offered some reasons for this wide acceptance. Among them: CIPP rehabilitates partially as well as fully deteriorated pipe, and its smooth inner surface increases the flow capacity of the existing pipe. CIPP eliminates inflow and infiltration as well as exfiltration. It spans a diameter range 4 to over 120" and has been used on sections of pipe over 3,000ft in length. CIPP adapts to non-circular pipe configurations (ovals, boxes, bends and transitional diameters). Robust to extremes of temperature and pH, it sees service in gravity, internal pressure and vacuum applications.

The list goes on, but probably the point has been taken. Is the repair/rehabilitation of pipe "worth it"? It is – very much so.

Circulation sub for higher flow rates and better hole cleaning

Weatherford International has announced the commercial release of the JetStream® radio frequency identification (RFID) circulation sub.

Poor wellbore integrity can cause events such as stuck pipe, wellbore collapse, sloughing shales and lost circulation, which are major concerns for drillers in deep water. The JetStream RFID circulation sub enables operators to run a series of tools at different positions along the drill string, and remotely actuate the valves an unlimited number of times in a single trip to achieve higher flow rates and cleaner wellbores.

“Weatherford has pioneered the innovative application of RFID technology in the oil and gas industry to drive operations efficiency,” said Neil Gordon, vice president of intervention services and drilling tools at Weatherford. “As operators deal with more complex wellbores, the ability to drop an RFID tag from the surface and circulate it through the sub enables our clients to open and close downhole tools multiple times, which provides superior operational flexibility and saves days of rig time. In deepwater drilling operations, RFID technology can save

the client over \$1mn per application by reducing the amount of non-productive time. This is critical in the current economic environment.”

An operator drilling in the North Sea deployed the JetStream RFID circulation sub in a 6.5" intermediate section that was drilled to total depth of 10,446 ft through a soft, porous

limestone formation. The JetStream RFID circulation sub was actuated a total of 16 times to spot 29 lost-circulation material pills, which allowed the operator to maintain loss rates below 20 bbl/hr (3m³/hr) and avoid abandoning the well.

Weatherford International plc – USA
www.weatherford.com



Jetstream RFID circulating sub tool

Underground pipeline assessment and repair

Hoffman Southwest Corp (HSW) is a provider of water flow solutions services. The company, which was recently acquired by private equity firm Sterling Partners, was founded in 1946 as a franchisee of the Roto-Rooter® brand, providing plumbing, draining and inspection services to commercial and residential properties in the western United States.

In 1992, HSW established Professional Pipe Services (Pro-Pipe) to provide underground pipeline condition assessment and repair, with closed circuit television inspection services

including video inspection, underground mapping, cleaning and rehabilitating of sewage pipelines for municipalities, contractors, engineers, government agencies, facility owners, homeowners and natural gas providers.

Inspection services range from optical condition assessment of manholes and geographic information system integrations, to CCTV lateral launch systems for mainline and lateral inspections, laser profiling for collecting survey data, and pipeline report creation. Pro-Pipe also has a large and growing cross bore practice that assists

municipalities and utilities in identifying potential sewage pipe obstructions.

“Underground sewer lines require ongoing inspection and maintenance, and utility lines installed using boring methods can unintentionally intersect with existing sewer lines,” said Mark Metcalfe, HSW’s VP of operations.

Hoffman Southwest Corp – USA
info@hswcorp.com
www.pro-pipe.com

Sterling Partners – USA
www.sterlingpartners.com

Freeze sealing for pipe repairs

Contractors and maintenance personnel involved in repairing pipework in buildings and other constructions have long faced the problem of making repairs on tubes and pipes when they are full of fluid and may not be economically viable to drain.

The Accu-Freeze® pipe freezing system is able to freeze a plug in fluid either side of a repair zone, isolating it, to allow work to be carried out without draining the whole system.

Luke Keane, technical support at Huntingdon Fusion Techniques (HFT), said, "Accu-Freeze utilises liquid nitrogen (LN₂) in a controlled way to freeze stationary liquids in a selected section of pipe or tube.

"By controlling the surface temperature of the pipe or tube, Accu-Freeze can accurately and safely form an in-line ice plug, capable of withstanding 136 bar in diameters up to 12" (300mm)."

To form an ice plug, the water or liquid inside the pipe or tube is brought to a static condition and a specially designed insulated jacket is placed around the section to be frozen, upstream from the repair zone. Once the plug is formed, maintenance and repair can take place

without draining or shutting off the entire system.

The controlled ice plug only forms beneath the Accu-Freeze jacket. It does not expand outside of this area and does not create enough pressure to affect the integrity of the pipe.

The primary advantages of the patented Accu-Freeze system include the increased freezing capability of LN₂ and the ability to control the pipe wall temperature throughout the freeze process.

The LN₂ injections are automated, which reduces the operator's workload and reduces the amount of LN₂ that is consumed.

Accu-Freeze can also be operated remotely, which makes it suitable for use inside 'hot' nuclear areas where personal exposure must be

kept below certain limits. The Accu-Freeze technique is able to freeze large diameters and control the entire freeze process.

Huntingdon Fusion Techniques – UK
pipefreezing@huntingdonfusion.com
www.huntingdonfusion.com

Accu-Freeze uses liquid nitrogen to freeze stationary liquids, to form an ice plug inside the tube



Clamps vs composites

Composite repair specialist IMG Composites has published a new white paper on the subject of composite pipe repairs versus the more traditional repair technique of utilising clamps.

The paper, which was published on a free-to-view online platform accessed via the IMG Composites website, provides detail on the benefits and disadvantages of using each method.

The technical department at IMG Composites works on studies of many aspects of the composite repair business, often writing technical service reports for the information of clients and internal development. The paper is primarily the work of technical support engineer Stuart McKay,

whose background is in mechanical engineering, and who previously worked on designs for steel fabrication before joining the technical team behind the award-winning CompoSol® repair technology in 2013.

The white paper looks at the definition of the two different repair types before exploring the selection process, operation aspects, technical aspects and commercial aspects, and then drawing conclusions. This is followed by an examination of case studies for both the traditional and new techniques. MG Composites commercial manager Ian Taylor stated, "The article is an excellent addition to our technical database, which serves as an invaluable information resource for our personnel.

We chose to publish this in order for our clients and partners to better understand the issue.

"It is not a matter of pretending composite pipe repairs are a panacea for all problems; instead the article is designed to help clarify areas where composite pipe repairs are more advantageous than clamps and vice versa."

The subject of clamps vs composites is also briefly explored at www.compositepiperepairs.com, an IMG Composites website dedicated to composite pipe repairs.

IMG Composites Ltd – UK
contact@imgcomposites.com
www.imgcomposites.com

Pipe rehabilitation senior appointment in North America

Trelleborg's pipe seals operation has appointed product group manager Dave McArthur to provide its North American customers with a dedicated contact for the pipeline rehabilitation market.

Mr McArthur, who has 25 years' experience within the pipeline rehabilitation industry – the past 15 years specifically based in the USA – will be responsible for the operation's continued growth in the market, through the day-to-day management of its pipe rehabilitation solutions in North America, including the introduction of new products.

"Trelleborg Pipe Seals has an excellent reputation in the industry for high quality technology and is a clear leader in innovation," said Mr McArthur. "It was the company's drive, expertise and industry status that really appealed to me. I'm eager to get bedded into my role, so that I can provide customers

with the service they need in this growing area."

Mr McArthur's previous role was as a product manager, working with pipe rehabilitation contractors specialising in cured-in-place pipe lining of small diameter laterals, in the North American market.

Simon Burke, US commercial manager for Trelleborg's pipe seals operation, commented, "With his specific previous experience, we know that Dave will be able to hit the ground running to successfully service our North American clients and grow our presence within the market."

Trelleborg supplies new and rehabilitation sealing solutions for concrete, plastic pipes and manhole pipes used for water, sewerage and drainage. It offers a wide range of technology designed to provide long-term structural renovation



Dave McArthur

of pipelines, and specialises in the sealing of pipes to prevent infiltration and exfiltration.

Trelleborg – Sweden
www.trelleborg.com

Innovative high-speed steel and plastic pipe cutting machines

Finnish company Exact Tools Oy, which has developed a complete new method to cut pipes, has launched a brand new range of steel and plastic pipe cutting systems along with cutting accessories.

The award-winning PipeCut range of pipe cutting systems are one of the fastest, easiest, safest and most precise ways to cut and bevel pipes and tubes on site, producing a straight, ready-to-install finished surface in a multitude of diameters and materials, eliminating many of the problems associated with pipe cutting.

There are over seven different models available, ranging from the PipeCut 170 and 170E systems for cutting 15mm to 170mm diameter steel and plastic pipe, to the PipeCut P400 for cutting and bevelling, in one process, plastic pipe from 100mm to 400mm in diameter with a wall thickness up to 25mm.

Each model can be supplied with a choice of three different blades – TCT (tungsten carbide tip) blades for general use in cutting steels, copper, aluminium, plastic and multi-layer materials; cermet with ceramic tips for heavy duty applications such as cutting stainless steel and acid proof steel; and diamond discs for cutting cast iron pipes.

The Exact V1000 model can cut spiral duct tube ranging from 75mm to 1,000mm in diameter with wall thicknesses ranging from 1.5 to 6mm.

These systems are suitable for the professional industrial pipe installer employed in power generation, refinery and chemical plant, hospital and other construction sites, house building and renovation, shipbuilding, wood pulp, fresh and waste water systems, heating and cooling systems, gas installations, maintenance and repair work. They are very easy to use on steel, cast iron,

stainless steel, aluminium, copper and most types of plastic.

The cutter firmly grips the pipe to be cut, with the blade being automatically positioned to cut correctly; in addition the entire weight of the cutter rests on the pipe.

When started, the blade chips the pipe surface rather than grinding it, producing a burr-free cut surface that is ready for installation. The operation is dust free and does not produce any sparks.

Each system comes supplied with its own set of pipe holders (except model V1000, for which they are an optional extra), pipe saw, allen keys, CD user manual and shoulder bag.

Exact Tools Oy – Finland
steve.marsland@exacttools.com
www.exacttools.com

Spotlight on the future of the world's nuclear power industry

An expert commentary from Charles Ferreira, business development manager, and Kris Narasimhan, nuclear products manager, Fine Tubes and Superior Tube

There is good reason to be confident about the future of the nuclear power industry. Nuclear energy currently accounts for approximately 11 per cent of the world's electric power generation and that percentage appears poised to increase.

Global energy demand is expected to grow at a compound annual growth rate (CAGR) of 1.2 per cent between 2012 and 2035, driven in large part by expanding worldwide electrification and increased mass power consumption in emerging markets.

To meet that demand while reducing CO₂ emissions and enhancing energy independence at the same time, governments plan to turn increasingly to non-fossil fuel options to generate electricity with the nuclear power industry – set to grow as a result at a CAGR of 2.44 per cent per year.

For example, China has plans to build at least 60 new reactors, while India will need some 20 new power stations by 2030 to meet its target of increasing the 5,000MW of electricity it currently produces from nuclear power to 30,000MW by 2032. In addition, Russia, the UK and the USA all have firm plans to either build new nuclear power stations or add new reactors to existing plants.

Moreover, apart from new builds, there is considerable refurbishment and maintenance activity planned in many countries with mature nuclear power industries. That is significant because it can be eight or nine years from the date that an operator or government agency decides to construct a new plant until that reactor becomes operational. In other words, the decision-making process as it affects the supply chain can be a very long one, whereas, in the maintenance field, it is possible to react more quickly to more pressing demands.

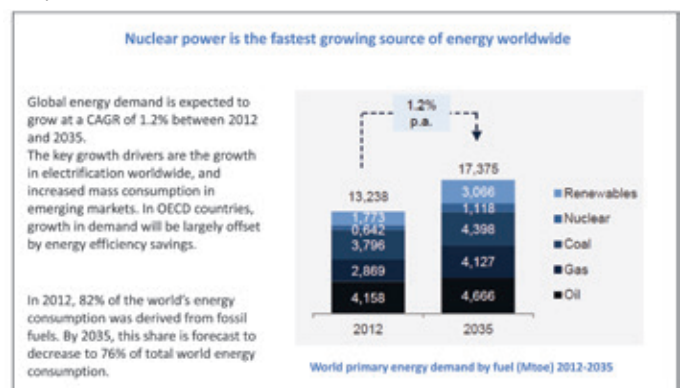
In one such example, Canada will spend an estimated \$20bn in the coming years on the refurbishment of existing reactors. Similarly, both US and French operators want to extend the lives of reactors beyond their originally projected 40- or 60-year lifespans.

Mr Narasimhan makes the additional point that apart from an ongoing need for consumable products, these refurbishment projects offer huge opportunities to supply everything those projects require, from heat exchangers to steam generators.

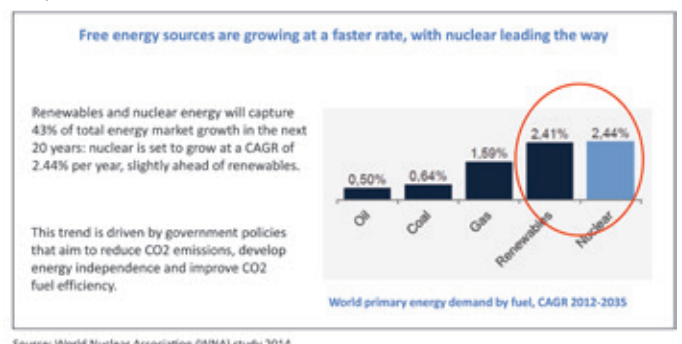
Notably, all of this market activity has happened despite a number of countervailing factors. The Fukushima incident in 2011 had a significant effect on the world's nuclear power industry, points out Mr Ferreira. Operators and engineering companies have introduced new standards, and governments have established requirements to put additional safety equipment in place, which increases costs. We do not agree with international nuclear safety consultant Mycle Schneider, who commented that nuclear power is not economically viable.

While the most obvious source for increased activity undoubtedly is new-builds in developing markets, this is far from the only source of growth for the nuclear power industry in the coming decades. Increased activity for safety upgrades and legacy projects will come from a number of different sources around the world, including the USA, Europe and Russia. There also will be significant nuclear efficiency programmes and clean-up/decommissioning projects and, moving beyond Fukushima, Japan plans for nuclear power to contribute between 20 and 22 per cent of its electric power generation in 2030.

Graph 1



Graph 2

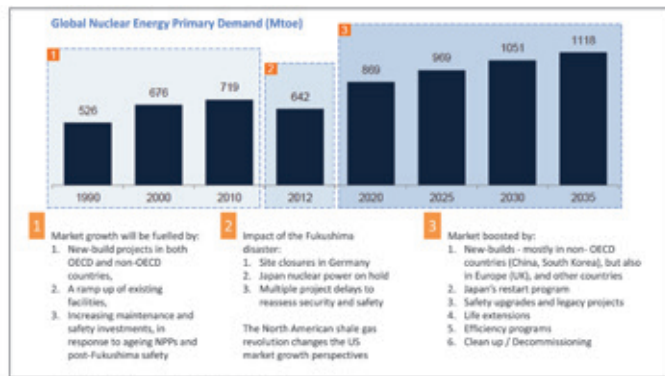


How well-placed are Fine Tubes and Superior Tube to take advantage of these nuclear opportunities?

For a start, Fine Tubes and Superior Tube have integrated their respective teams into a unified group with a common focus on nuclear projects worldwide, including new-build and maintenance programmes. Looking at both emerging and mature markets, the Superior Tube and Fine Tubes nuclear team plans to concentrate on the best approaches to take in individual regions, working to build good relationships with governments and key players in those countries where nuclear power continues to grow.

Superior Tube and Fine Tubes both have strong track records with in-core consumable items, such as instrumentation, fuel cans, control rods and grid sleeves. The companies also supply into the nuclear island, turbine island and balance of plant for heat exchangers, steam condensers and structural tubes.

There are different approaches for specific regional markets. In India, for example, there are applications not manufactured locally because there is insufficient expertise working with such high-end materials as the Hastelloy® family of alloys or 6 Moly in stainless steel or, in nickel, Inconel® 600 and 625. Engineering companies and plant operators therefore have sought out companies like Fine Tubes and Superior Tube to support them.

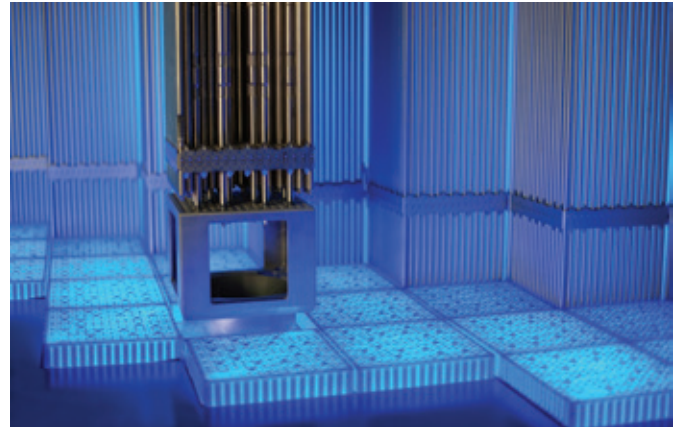


Source: World Nuclear Association (WNA) study 2014

Graph 3



Fuel can tubes



Nuclear fuel element with fuel cans

And, because of the safety-critical nature of tubular nuclear components, top-level contractors and plant operators have insisted upon using suppliers with extensive nuclear experience and proven track records in the nuclear industry.

The Russian market requires a different approach, according to Mr Ferreira. Because the main nuclear plant operator, Rosatom State Atomic Energy Corporation, has invested heavily in developing its own model reactors and power plants, the focus is on building relationships with distributors and other organisations already well-established as part of the supply base.

Whatever approach is taken, the opportunities are there, and Fine Tubes and Superior Tube are in excellent positions to take advantage of them. The two companies each have more than 70 years of experience in meeting the most demanding tubing requirements with innovative products and leading-edge metallurgy. The synergy created by the partnership between the two companies places them not only at the forefront of technological expertise in the marketplace but also provides them with the agility, flexibility and enthusiasm to deliver the very best solutions to end users, operators and original equipment operators around the globe.

The recent acquisition of UK-based Fine Tubes and US-based Superior Tube by Ametek, Inc, a leading global manufacturer of electronic instruments and electromechanical devices, further enhances their ability to support customers worldwide. Ametek already has a strong nuclear instruments presence and is excited to collaborate on bringing additional comprehensive solutions to the market.

In summary, the philosophy underlying the approach of Superior Tube and Fine Tubes to the nuclear market is not based on the pursuit of short-term transactional relationships but on shared expertise and long-term partnerships.

Fine Tubes Ltd – UK
www.finetubes.com

Superior Tube Company – USA
www.superiortube.com

3sun Group.....	28	Jee Ltd	37
ANSYS, Inc.....	24	Litre Meter	34
Arco Ltd.....	8	McElroy	21
Auma Actuators Inc.....	31	Mechanical Engineers & Contractors (MEC).....	36
Auma Riester GmbH & Co KG.....	31	Messe Düsseldorf GmbH.....	10
Barrett Green Management.....	39	MRC Global Inc.....	43
Beswick Engineering Co, Inc	26	Nu-Tech Precision Metals Inc	28
BrassCraft Manufacturing	33	OptaSense.....	15
Brugg Pipesystems	18	Optical Metrology Services Ltd.....	18
Centravis	16, 48	PIPE2000 Ltd	18
Chandan Steel Ltd	49	Power Fin Technologies	52
Combilift Ltd.....	7	Plymouth Tube Co.....	14
CSM Tube.....	39	Quaker Chemical Corp.....	38
Dhatec	40	Robor.....	47
e2v	12	Rohrbefestigungen Hammerschmid GmbH.....	24
European Tubes Ltd	47	Sandvik Materials Technology.....	11, 50
Eurotubi Europa Srl	38	Sapa Precision Tubing Lichtervelde NV	23
Exact Tools Oy	56	Schott AG.....	29
Flexenergy Ltd.....	21	Smith Flow Control Ltd	10
The Flexitallic Group	14	Stauff	12
FMSC	14	Sterling Partners.....	54
The Freedonia Group, Inc	36	Superior Tube Co	17
FSKZ eV	33	Tata Steel Europe Ltd.....	48, 50
Hebei Senhai Pipeline Co, Ltd	52	Technip	6
GF Piping Systems Ltd	42	TMK.....	13, 49
Guangzhou FlowExpo Co, Ltd.....	7	Trelleborg.....	22, 56
Hobas Engineering GmbH	16, 26	Tubacex SA	27
Hoffman Southwest Corp.....	54	Tube Developments Ltd	52
Huntingdon Fusion Techniques.....	23, 40, 55	University of Strathclyde	43
IMG Composites Ltd.....	8, 55	Versaperm Ltd	41
International Industries.....	41	Voswinkel GmbH.....	12
International Titanium Association	34	Weatherford International plc.....	54

advertisers index

Addition Manufacturing Technologies.....35	Neureuter Fair Media (Tube 2016 Catalogue) 25, 27
Bola-Tek Mfg Co Ltd.....42	PCC Energy Group.....9
Both Well Steel Fittings Co Ltd.....31	Qualitube Ltd.....17
CSM Group Front Cover	Randolph Tool Co Inc.....36
FERPINTA - Ind. Tubo Aço de F.P.T., S.A.....13	SME – Fabtech Canada 2016.....19
Fine Tubes Ltd.....Inside Front Cover	TAG Pipe Equipment Specialists LtdBack Cover
Guangzhou Julang Exhibition Design Co Ltd5	Tecron Piping Systems (Qingdao) Co Ltd.....49
International Industries Ltd15	Tube Developments Ltd1
KRV Kunststoffrohrverband eV Inside Back Cover	Tubing Solutions LLC.....29
Lamiera 2016.....20	UKF Stainless Ltd11
Larikka Ltd.....21	Voestalpine Tubulars GmbH & Co KG30
Messe Düsseldorf GmbH.....37	Wuxi Hatal Aluminium Co Ltd39
Messe Düsseldorf GmbH – Tube Düsseldorf 2016.....41	

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Our new details are:

Unit 15 & 16 Grendon Industrial Estate, Grendon Underwood,
Aylesbury, Buckinghamshire HP18 0QX England

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MOVED!**



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FabTech, Canada (22-24 March 2016) | Tube, Germany (4-8 April 2016) | MACH 2016, UK (11-15 April 2016) | FabTech, Mexico (4-6 May 2016)

www.TAG-PIPE.com