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# Ultimate flow-line solutions

Australian manufacturing company CladTek International Pty. Ltd. has proven its bi-metal lined pipes to be a viable and cost-effective alternative to solid pipes. Manufactured for applications in the global oil & gas industry, these unique products offer the advantages of high-strength carbon steel pipe with the corrosion resistance of alloy pipes.

Looking to spread the word about CladTek's unique products and manufacturing processes, Paul Montague, Managing Director, tells *Stainless Steel World* all about the company's products, processes and plans for the future.

Frank Wöbbeking

"We want the world to know that there is a viable and cost-effective alternative to solid CRA's and carbon steel with inhibitors", Mr Montague begins. "Many projects using this new technology have been completed successfully and we are now ready to spread the word about our unique products." In accordance with the company's growth strategy, numerous investments are being made in order to expand production as a result of this product's success.

## A reliable alternative

This new alternative is a bi-metal lined pipe à la CladTek. "We have developed a different way of manufacturing these pipes", comments Mr Montague. "Our bi-metal lined pipes consist of a high-strength carbon steel carrier with a corrosion-resistant alloy liner. The outer pipe is a seamless or welded carbon steel pipe, manufactured to international standards: API 5L, DNV OS F 101, or client-specific requirements. Yield strengths from 350 to 550 MPa are available in diameters of 4 to 42 inches. The liner pipe is a welded CRA pipe with a wall thickness from 1mm to 6mm, typically 2.5 to 3mm." The liner pipes are available in alloys 316 LMo, Duplex and Super Duplex 904L, 254 SMO, 825 and 625.

CladTek offers uniform pipe lengths of 6, 12, 18 or 24 meter, which are ideally suited for lay barge weld stations.

## Cost-efficient manufacturing

"Our production process is more efficient compared to the 'old-fashioned' way", Mr Montague explains. "It consists of just six steps", he underlines. "First we manufacture the carbon steel outer pipe and the liner pipe under optimum conditions. After having blast-cleaned the carbon steel pipe, we extend the liner pipe into the outer pipe. The process is finished by seal-welding or cladding the pipe ends and topped off with end preparation in line with the customer's requirements and hydro testing." According to Mr Montague, the 'old-fashioned' method combines ten steps. The CladTek method ensures customers get a more cost-efficient and time-efficient manufacturing process.

In addition to time and cost



Paul Montague managing director of CladTek International Pty. Ltd.

efficiency, this new method of processing the company's bi-metal pipes offers three more advantages. The first is little waste, the second is a dry manufacturing process and the third is improved corrosion performance. "Our production methods don't produce any waste materials and the process is completely dry, which means that there is no risk of water ingress. Moreover, the corrosion performance of the liner has been significantly improved. So we are able to reduce the cost of bi-metal lined pipes and have lowered the break-even point for changing from carbon steel with inhibitors to a passive metallurgical corrosion solution." This in combination with maintaining the highest quality.

CladTek carries out ongoing research into its products and processes and tests each technology for performance and reliability. "We know how important quality is and we are convinced that ongoing research will continue to lower costs and widen the choice of applications." As a result, CladTek offer products with low life costs, low risks and high reliability. "We offer the ultimate in flow-line solutions", he adds.

## Applications

The CladTek bi-metal lined pipes can be used for a wide range of applications such as multiphase flow lines, risers, production tubulars, gathering lines, water injection and slug catcher fingers. "Our new pipes have proven their reliability in a couple of projects. For Santos Australia and Clough Engineering for instance we delivered 1410 tonnes of bi-metal lined pipes for the Mutineer Exeter-project. Here our pipes were used for subsea pipelines and contained liner pipes using X65 - alloy 316L2.5Mo." Both partners were enthusiastic about CladTek's performance and expressed this in a recent letter of recommendation. A number of the company's other ongoing projects are in cooperation with IKPT, Shell and British Gas.

CladTek is currently working on approval from other leading oil and gas majors. For the past six months for example, CladTek's products have been undergoing certification tests at Statoil in Norway. "Our work with Statoil is only the beginning of the projects we will be undertaking in other parts of the world. Our current



locations are based in South-East Asia and the Middle-East. However, we are looking forward to reaching further into Europe and other parts of the world.

## Significant investments

In line with the success of the company's new manufacturing methods and product line, CladTek has plans for significant investments in its production facilities and product range. "In 2006, we sold 51 percent of our interests to UMW Oil & Gas. We did this in order to facilitate growth and project financing for a bigger future," Montague explains. "We are now investing in additional capacity as well as in process and safety improvements."

The company's plans include a new blasting line, ten additional cladding stations, four overhead cranes, two new end-machining stations, a hydrotest unit to be lowered below ground and new NDT equipment. "Our production facilities are located 15km from

## Facts & Figures

<b>Company name:</b>	CladTek International Pty. Ltd.
<b>Managing Director:</b>	Paul Montague
<b>Head office:</b>	Perth, Western Australia
<b>Offices:</b>	Dubai, Singapore, Thailand, Taiwan, Malaysia, Indonesia
<b>Products:</b>	Bi-metal lined pipes, clad pipes, bends, risers, fittings and flanges, clad pressure vessel components.
<b>Key markets:</b>	Oil & Gas industry
<b>Employees:</b>	80
<b>Turnover:</b>	USD 65m (estimate 2007)

## About CladTek International Pty. Ltd.

Established in 2003, CladTek has developed from a fabrication company in Perth, Australia to a global manufacturing company with offices across South-East Asia and the Middle-East.

CladTek International was itself formed in 2006 in response to demand for the company's bi-metal lined pipes, cladding and weld overlay techniques for vessels, dished heads and all its associated components. CladTek FZCO in the Jebel Ali Free Zone provides the company with access to the facilities of Dubai Port Authorities. PT CladTek is the bi-metal lined pipe manufacturing plant which is located on the island of Batam, Indonesia. Nearby there are well-established shipping facilities. Via the PFP Group CladTek has affiliates all around the world.

Singapore in Batam - Indonesia with well-established shipping lines to the rest of the world."

By September this year, CladTek will also have its new liner production facility online for pipe diameters from 8 inches to 30 inches. "This liner facility will give much greater flexibility for small quantities of non-standard size liners, while using our traditional sub-suppliers for larger quantities."

The first steps have been taken and the plans are set for considerable expansion. When asked what the future may hold, Mr Montague concludes: "Being a pretty conservative market, with a keen eye for high quality, the oil and gas industry relies on reliable partners and established suppliers. It's our turn to prove that we are more than capable of providing them with the reliability, high quality and efficiency they have come to expect, both in terms of products and services."

CladTek's message is clear. There is a viable and reliable alternative on the market, and this is where to find it.

