

IMPRESSIVE SHOW

In a second report from China, Mónica Higuera, John Nutting, Daniel Searle and Kate Xu review more developments from this year's Cannex

Undeterred by financial blues, complacency or swine flu, business leaders of the world's metal packaging industry gathered in Guangzhou in June at their annual convention Cannex.

Supported by China's Ministry of Science and Technology, Cannex is "a premier and professional exhibition for the can-making industry and also a marketplace for exchanges and cooperation," said Shi Fuhua, deputy director of Guangdong Province's Science and Technology Department.

"The products, equipment and technology exhibited here reflect the latest technology and direction of development in

international canmaking industry," he said.

Held for the first time in China since its establishment in 1994, Cannex attracted visitors from every continent. "Especially in today's global financial crisis, it is really impressive," Shi added.

Exhibitors were impressed too. Managing director of Germany's Overbeck, Javier San Miguel said: "The most positive surprise for us was the large influx of visitors of other countries of Asia. Since Overbeck used to deal through agents, we did not know the name of all our customers. We always meet new old customers in Cannex exhibitions."

One tool grinder that does the job of two

Overbeck presented its new IRD 400 body-maker tool grinder, which provides savings to canmakers who normally use two grinding machines.

"The canmaker plant's tool room normally has at least two grinders, one for internal and one for external grinding. In the internal radius grinder they regrind the rings, and in the external grinder they regrind the punches," explained San Miguel.

The maximum grinding diameter of the IRD 400 is 200mm for rings and 300mm for punches. The system features components by Heidenhein, Bosch, INA, Festo and Siemens CNC control.

Two canmakers in China are already customers, while IRD 400 grinders will soon be delivered to one company in Europe and one in Africa. In addition, two out of the three leading beverage canmakers have approved the system, he said.

"This exhibition has helped us to present it to the market. The most important issue for us is to have the possibility to contact many customers and potential customers at the same place and time."

Cannex was 'eye-opener' for Impress's delegation

To maximise its exposure at the show, Impress, the world's leading producer of seafood cans, sent one delegate from each of its canmaking plants in Australia and New Zealand to Cannex.

Andrew Buchan, technical and R&D general manager for Impress Australasia, said, "Our team comprised a whole range of different employees – not necessarily plant managers – from across the business.

"The show was a real eye-opener to the sheer immensity of China – just the enormity of the place and the number of people was incredible, especially if you hadn't travelled there before.

"There were well-known suppliers from



Europe and the US, and one well-known Australian supplier. We were also exposed to the huge range of Chinese equipment and can suppliers," Buchan said.

The Impress booth, with staff from the company's new Hong Kong office, allowed it to showcase its can product range to the Asian market.

"There was lots of interest in our products, especially in some products not yet available in China, such as our Easy Peel closures and drawn food cans," he said.

Jordan's JTPC to expand with two lines

Jordan Tinplate for Canning and Printing Co (JTPC) was at Cannex to source equipment for two three-piece canmaking lines it is planning to install by the end of the year.

The food and general line canmaker was established in Jordan in 1998 as a metal decorator. Its mother company, Nablus Canning, was founded by Adel Abu-Salha and partners in the West Bank in 1954 to



Left: Security was tight at the opening of Cannex in Guangzhou

Below: Shi Fuhua, deputy director of Guangdong Province's Science and Technology Department, welcomed delegates at the opening ceremony



Below, left to right: Jordan's JTPC was at Cannex represented by Asem Abu Salha, international business manager Omar Abu Salha, and Ameded Abu Salha



supply cans locally and to Jordan, where in 1991 it set up a branch.

JTPC today processes and trades about 17,000 tonnes of tinplate a year. The company's main export markets are Iraq, Syria, Lebanon and Egypt.

Chinese aerosol canmaker installs German equipment

German company Mall + Herlan installed a monobloc aerosol can production line to Shantou Oriental Can in the second quarter of 2009.



Canmaker Shantou is based at Shantou City in Guangdong province, and operates two other aerosol canmaking lines with a total capacity of 70m cans a year.

Mall + Herlan, part of Swiss group Polytype, promoted its MHD nine-colour printing unit at Cannex, along with the CNM 36 V necker of sister company Eta-Tech.

The MHD unit incorporates a range of time-saving features. Washing of the rollers and rubber blanket are both performed automatically. The unit also uses magnetic printing plate cylinders for quicker plate changes.

The standard MHD unit prints lengths of between 52mm and 260mm, while other lengths are available on request.

Energy savings in Cincinnati ARC-Pacific collaboration

A range of pin ovens for beverage can lines that are claimed to offer significant energy savings is the outcome of a venture

between US-based Cincinnati Industrial Machinery and China's ARC-Pacific.

ARC-Pacific was created six years ago by former ITS employees Andy Potts, Craig Herrforth and Ulf Reinhardt. "It was formed to offer industrial machinery manufacturing as a low-cost alternative to western OEMs using build-to-print operations," said Potts.

For the past two years they've been developing their E3 range of pin ovens and these will be made in China alongside the Cincinnati range of washers and dryers.

"They have a chance of competing locally by reducing shipping costs and attracting lower taxes," said Potts. "It's a big step. It's like buying a Cadillac out of China."

Focus of the E3 range of pin ovens is energy savings, says Potts. "This is achieved by using better insulation. Everyone else uses 100mm of insulation ▶

but we use 150mm. If you calculate the saving over the life of the oven then the savings are huge.”

High-quality shaping and embossing to beat forgers

Italian canmaking equipment manufacturer Cevolani is developing a commercial version of its prototype non-mechanical expansion system for three-piece can bodies.

The system offers precise embossing as well as shaping, and is designed to enable canmakers to produce cans which are difficult for product counterfeiters to replicate. Sales and marketing director Mauro Cattani said that the company aims to produce high-quality sample cans illustrating the full capabilities of the system later in the year.

Efficiency is the key in economic downturn

Milwaukee-based International Thermal Systems is currently promoting its Teflon-coated plastics belting for internal bake ovens and drying ovens, and its energy-efficient air direction nozzles.

The systems are proving popular in the current economic slowdown, said European sales manager David Reeve, as they cut costs and also offer a quick payback from a relatively small investment.

ITS is currently involved with two project management companies to supply equipment to plants under construction, including drying ovens, IBOs and washers to a new beverage can plant in Iraq and dry-off ovens and IBOs to a project in Nigeria.

Auto trial sheet selection for Fuji sheet decorators

Robust and reliable the metal decorating presses from Fuji Kikai Kogyo in Japan may be, but one feature that has apparently been absent from their machines is a means of automatically selecting trial sheets at production speed.

This was corrected at Cannex with the launch of the Primex S452 stacking system that includes an automatic trial sheet correcting device. Introduced three months ago, said Naoki Fukui of the company's metal decorating business department, the device enables operators to pre-select up to ten sheets which are dropped into a handling trolley below the line. Previously this had to be done manually.

Unimaq paints a picture of the canmaking industry

One of the more unusual sights at Cannex Asia Pacific 2009 was brought by UK-based beverage can decorating equipment manufacturer Unimaq. Throughout the three days of the exhibition, a team of



Painting a picture of the industry's heads on the Unimaq booth

local painters re-interpreted a reproduction of 'De Magere Compagnie' by Frans Hals to include likenesses of some of the leading figures in the beverage can industry.

First to be added to the 5.5m by 2.4m canvas was Rexam's former chief executive Rolf Börjesson, who was followed by 15 others including Pacific Can's Glenn Yee, Crown's head of Asia Pacific Jozef Salaerts, Toyo Seikan boss Hirofumi Miki, Can-Pack's Wieslaw Smulski, and The Canmaker magazine's Allan Sayers.

Unimaq recently supplied a six-colour decorator for the beverage can line built for Aujan Industries in Iran, and will be supplying four similar decorators and varnishers to the beverage can plant currently under construction at Baghdad in Iraq. The company has also branched out from metal decorating equipment to develop a mass bottom rim coater in collaboration with US company Nordson.

High-fidelity printing reaches South East Asia

So-called high-fidelity decoration on beverage cans, a technique that enables better quality images to be printed, has reached South East Asia.



DWI decorating technology on Marubeni's booth with Esko-Artwork high-fidelity quick-change plates

While canmakers in North America and Europe have been cagey about revealing how they developed the process, Esko Artwork's China-based agent was demonstrating the special plates, along with a quick-change technique that

reduces down time on the decorator.

Combined with computer-to-plate pre-press processes, the 'topographic' plates – named that way because they look like a landscape – make it easier to print a finer dot while maintaining normal blanket cylinder-to-can pressures. The result is better image resolution.

First customer to take up the system is Crown in Thailand, said Jason Chia, manager of Esko-Graphics pre sales supporting Greater China. "Lots of canmakers think they don't need this technology," he said, "mostly because they have outside plate makers."

"But now canmakers also want security in their label production, so they are bringing in their own systems."

Thermochromic inks for three-piece cans

Colorado-based CTI Extreme Inks, which has been supplying thermochromic inks that are used on aluminium beer cans such as Coors Lite, is branching out into inks for use on decorated three-piece welded cans and aluminium bottles.

While use of the inks on two-piece cans that show that the beer is cool enough to drink have seen application in small areas of the can, mainly because of their cost, CTI's John Davis says these new inks open up a range of new possibilities.

In one version the DynaColor ink turns transparent with body heat, enabling a can to change its label when held. Another version turns a deep blue when cooled.

"Printing on three-piece cans opens up a significant portion of the international can market to thermochromic inks," said Davis.

"We can't release information about who is using the three-piece thermo until the brand gets to market." Work it out for yourself though. The only three-piece welded cans for beer are five-litre kegs. And who's big in five-litre kegs?

Automatic height changes for monobloc bottles

Hinterkopf's mysterious booth at Cannex Asia Pacific comprised a cylindrical room inside which a number of screens were displaying a multimedia presentation that provided a glimpse of the future of the company's necking systems for monobloc aluminium aerosols and bottles.

Using sophisticated animations, the presentation showed how in collaboration with Schuler, the latest N40V satisfies a number of customer needs.





Attracting attention at Cannex: I-Mer's automatic ink control systems for DWI decorators is inspected by Shen Bin Yi, general manager of Huayu Printing & Coating Equipment (middle right)

"The bottle neck in the production of modern aerosol cans are the so-called necking machines," said chief executive Alexander Hinterkopf. "With the previously available models, it was impossible to produce specially-formed or embossed packaging. But such bossy shaping and embossing is high on the list of the customer wishes."

Design of a new machine – the N40V – started in a collaboration between Hinterkopf and fellow German firm Schuler – which also makes impact extrusion presses – in 2007.

Markus Rover, head of Schuler's high-speed division, takes up the story: "We focused in particular on the aspects of increased output, greater flexibility and enhanced quality," he said. "We achieved this with a machine concept which takes a holistic approach to the decisive elements: body, slide guiding and drive. By separating the body from the drive forces and making the slide guiding play-free, we can achieve exact part positioning and a precise forming movement. The result is maximum output at high quality."

The stroke of the N40V can be adjusted in 25mm increments up to 325mm to enable body shaping and cylinders up to 175mm long formed. Speeds of 240 cans per minute are achievable with 150mm bodies or 150 cpm with a longer stroke of 275mm.

These reciprocating indexing systems have been rich enough in complex mechanical engineering to thrill the technology junky, but the latest versions add a swathe of electronically-controlled systems that will also appeal to customers keen to

change the height and shape of containers at the touch of a button, rather than changing the tooling, a long and arduous process.

The presentation showed animated three-dimensional images of how the machine changes the stroke and height automatically, along with the range of container possibilities.

Faster service for Europe's manufacturers in Singapore

Former Billhöfer sales manager Harald Moyrer has set up an agency based in Singapore to provide service in south east Asia for a number of Europe-based equipment and coatings companies.

"It's tough for south east Asian customers when they need to get an engineer from Europe," he said. "There's the time delay of course and then the delay in getting there; sometimes it can be up to four weeks. With the Easi Can network I can be there sometimes as quickly as half an hour for a meeting."

He started up the firm because he'd been "clocking in for too long". "I thought it was worth giving a try for a few years. I have a lot of good contacts, so why not?"

He will be tapping into recent growth in the Thai tuna canning business where six new lines have been installed. "They're running flat out. APC bought a new line that includes a six-colour printer from KBA. They're a part of Thai Union and it's the first time that the business has been printing the cans," said Moyrer.

Moyrer is the agent for Billhöfer, as well as representing Can Man, side-stripe powder coating and lacquer specialist

News In Brief

- On the lookout for one automatic canmaking line was Egyptian food and general line canmaker Shahin for Tin Cans. The company is based in Cairo and runs 20 semi-automatic production lines and four automatic ones, company owner Hesham Shahin said.

- US-based Sensory Analytics launched a non-contact coating measurement system for three-piece cans. The SpecMetric system is available as a lab unit and for shop floor use as well as in-line coating measurement systems for real-time measurement of wet or dry container coatings.

- Following Cannex, Guangzhou-based Jorson Trading has installed a pasteurizing, conveying and packaging system for a 1kg canned mango pulp production line in India. The line runs at 150cpm and equipment installed included an empty can depalletizer, washer, spray shower pasteurizer, filled can palletizer, cleaner, dryer and conveyors. Jorson also installed an 18-litre pail can combination machine in Turkey with a square can combination one planned for this month.

- Precision tool manufacturer Shenzhen MICTool Technology Corporation said that after Cannex the company has more potential clients from both China and abroad. MICTool's has added scroll dies to its product range, with several Chinese customers currently testing them. Director Jinkel Song explains: "We are not producing very big amount of this product, because we are still testing its efficiency in the clients' plants. This scroll die has price advantage. After we finish the testing, I think it would be welcomed in the overseas markets too."

- Chinese coil handling equipment specialist Hengli CNC Technology Co has employed Ken Johnson, former vice president of research and development at Littell, as technical adviser.

Hengli's coil processing lines now reach speeds of 300 sheets per minute. "In the past, some foreign customers didn't use to feel very confident with Chinese brands of machinery. But now people's opinion is changing. There are more and more Chinese machines in the world with competitive price and premium quality," said overseas marketing manager Wayne Mei.

- Established in 1990, Hong-Kong-based Canneed Instrument specialises in quality-control equipment for the seams and coating of food, beverage and aerosol cans and ends.

About 60 percent of Canneed's business is in China, the balance in South America and Asia. Following Cannex, the company has sold equipment to canmakers in Spain, Vietnam, Thailand, Saudi Arabia, UAE and Sudan, international sales manager Ray Chen said. "We are quite busy recently for replying customers' requests at Cannex. I think Cannex is the big event for the canmaking industry and it is a good chance for participants to share their experiences and exhibit their new products to the world."

- Chinese leading metal decorating equipment supplier Jiangsu Huayu Printing & Coating Equipment has also been busy following leads.

Sales manager Steve Shi said: "We have new inquiries from overseas customers that we never had business with before," he said. "The market is coming back, very slowly. But we sold several ovens to Australia, India, Egypt and Turkey after Cannex."

Schekolin, coating and lacquer supplier EP Ecopaint, Cazander and ESW Maschinenbau, a company set up for former Blema Kircheis staff to build cap, can and end making lines. "ESW isn't working outside Europe yet, but they are going for Asia," said Moyrer.

He is also agent for printer rebuilding specialist Hebenstreit Metal Decorating, whose first six-colour machine is being installed in Russia at Complekt, a St Petersburg-based fish can manufacturer. ▶

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Why aren't these cost-saving peelable ends being made?

A technique for making peelable membrane can ends that doesn't waste the metal punched out of the ring was being promoted at Cannex Asia Pacific. But nobody seems to be keen to take it up.

That's despite the increasing popularity of membrane ends which are now being widely used for retorted vegetable products by leading canners such as Bonduelle.

Sven Bauer at Alcan Packaging in Germany has been developing the process – called Tinapeel – for almost ten years, and even though he reckons it's been ready to go commercial for about three years, canmakers haven't shown much interest.

What's clever about the process of making the Tinapeel ends is that they are formed from a coated tinplate cylinder similar to a three-piece can body that's butt welded using a laser. The weld is so smooth that when the cylinder is slit into rims that are formed in a press into rings, it is barely noticeable.

Speed of the weld is up to 16 metres per minute, nothing like as fast as a WIMA welder, which could be why the development has stalled.

Alcan Packaging doesn't want to get into manufacturing, or even licensing. "Tinapeel is a feasibility study," said Bauer. "It's not our intention to produce our peel off ends this way but to show canmakers how it could be done: to give canmakers ideas about its potential."

Originally patented by Rasselstein, the process was developed because of the 50 percent metal savings, which was expected to make it competitive with normal easy-open ends.



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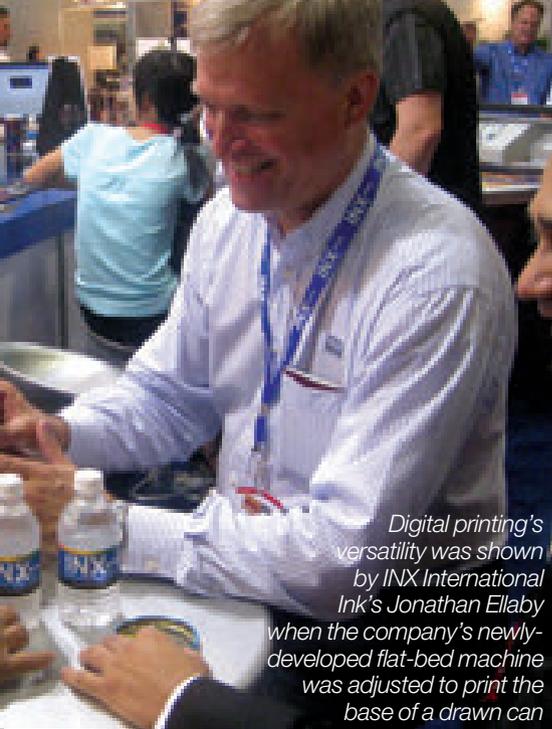
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Digital printing's versatility was shown by INX International Ink's Jonathan Ellaby when the company's newly-developed flat-bed machine was adjusted to print the base of a drawn can



Longwen is moving to a larger factory in China said Ma Jianguo, office director

Retort tests have been successfully carried out on 73 mm Tinapeel ends. "We need someone who will bring it to market," said Bauer who said that a number of suppliers had been involved in the project including, Weil Engineering, Blema Kircheis, Industrias Peñalver, Nordson, AkzoNobel and Actega.

China's Longwen boosts production of CNC sheet feed presses

Longwen Machinery is a leading Chinese supplier of can body combination machines. The Zhejiang-based company also makes CNC sheet feed presses and end-making lines.

In 2008 it launched an automatic rotary liner and this year at Cannex, it introduced an aerosol cone transfer press that runs at 180 units a minute.

Longwen is currently moving to an enlarged facility in Lingang district, economic development zone of Zhoushan city. At 26,600sqm, it is twice the size of its previous plant.

Office director Ma Jianguo says Longwen has boosted production of CNC presses and bought new high-precision numerical control processing equipment from Ningbo Haitian Precision Machinery and SMTCL to improve the efficiency of its own conversion presses.

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