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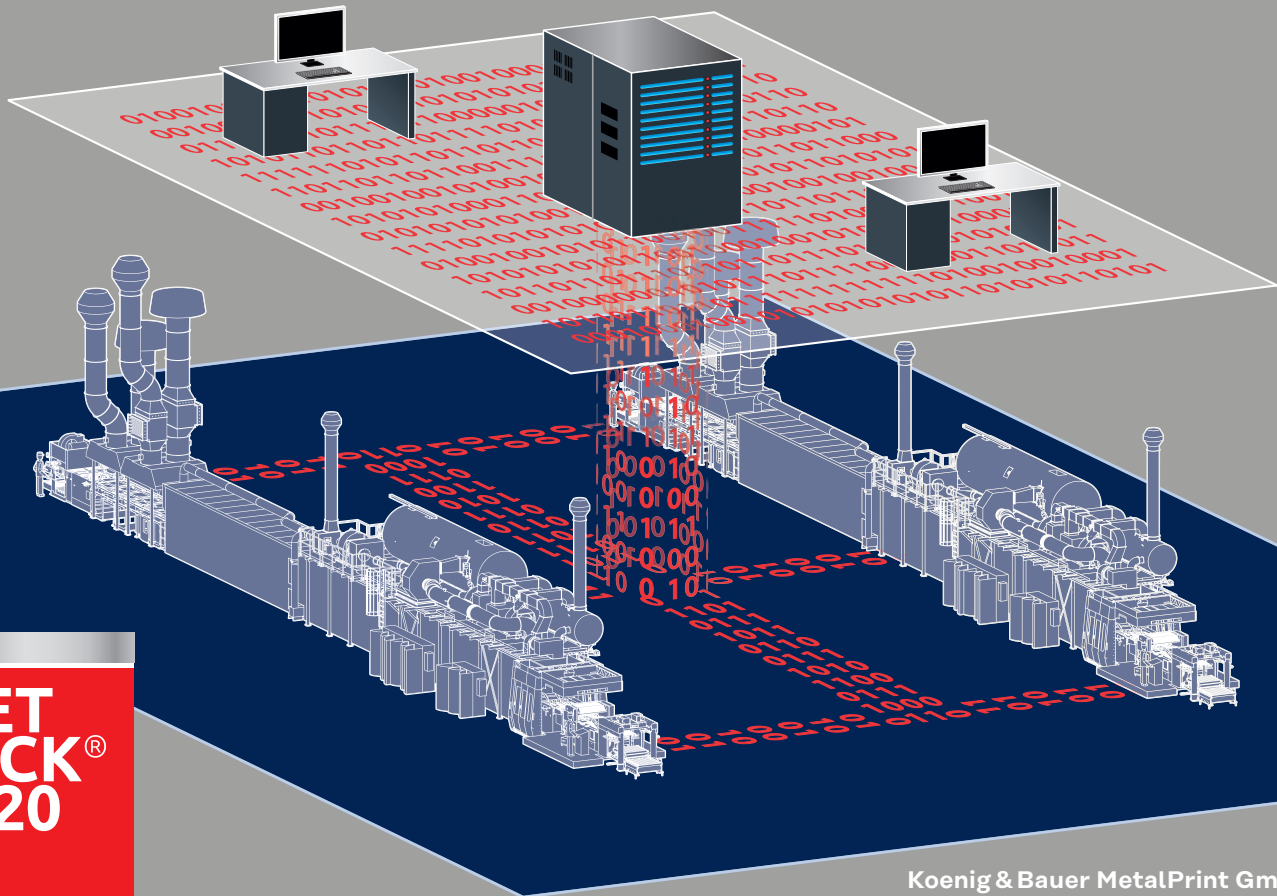
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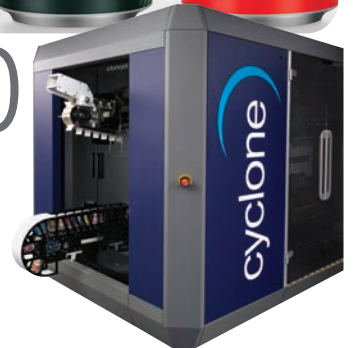
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# An Indian adventure

This issue comes hot on the heels of a successful CanTech The Grand Tour event in New Delhi, India. For the team, what struck us at the show was the immense passion for metal packaging in India from locals who attended the event.

The enthusiasm for growing the industry within India was very apparent from delegates out in New Delhi, and although we may be a few years off from truly penetrating the packaging market out there, it's certainly ripe for growth and it's a case of not if, but when.

We hope those of you who visited the show had a productive time, and we now look ahead to Vietnam for Asia CanTech this November. Registrations are starting to filter through, so please don't hesitate to get yourself booked up for the show. Our feedback indicated the industry's desire to take the show from Bangkok to Vietnam, so your wish is our command!

Our comprehensive review of the Grand Tour show will follow in our April edition, but for now, please visit page 27 to learn about our can award winners at the show.

Elsewhere, before we delve into new innovations courtesy of the Metpack trade show in May, this issue has a technical feel. We have a variety of technical features for you to enjoy, including content on UV Curing from Innosen and Miltec UV, and bearing performance from RBC Bearings. It's specialist material you'll struggle to find elsewhere, and this year we're certainly endeavouring to bring you a more technical/specialist focus to keep you one step ahead in the evolving world that is metal packaging.

If you have any technical papers to submit, be sure to get in touch with me via the usual channels.

I hope you enjoy the issue.

Alex Fordham,  
Editor, CanTech International



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## CanTech INTERNATIONAL

Editorial Director  
**Sarah McRitchie**  
sarah@bellpublishing.com

Editor  
**Alex Fordham**  
alex@bellpublishing.com

Art Editor  
**Sue Burke**  
prepress@bellpublishing.com

Digital Editor  
**Alex Rivers**  
arivers@bellpublishing.com

Group Sales Manager  
**Mark Neilson**  
mark@bellpublishing.com

Events Manager  
**Megan Freeman**  
megan@bellpublishing.com

Assistant Events Manager  
**Kyra O'Sheen**  
kyraosheen@bellpublishing.com

Accounts  
**Yee Yau**  
accounts@bellpublishing.com

Publisher  
**Neil McRitchie**  
neil@bellpublishing.com

Follow @Bell\_Publishing on Twitter or LinkedIn for regular snapshots from all of our magazines.



**Editorial & Sales Office:**  
57 Bath Street, Gravesend Kent DA11 0DF, UK  
Tel: +44 1474 532 202 Fax: +44 1474 532 203

Taiwan Sales Agent:  
Worldwide Services Co Ltd  
11F-B, No. 540, Wen Hsin Road, Section 1,  
Taichung, 40848, Taiwan.  
Tel: +886-4-2325-1784 Fax: +886-4-2325-2967  
Email: wilson@acw.com.tw  
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## Ball Corporation reports positive 2019 figures

Ball Corporation has reported on its 2019 net earnings, which were US\$861 million compared to \$775 million in 2018.

The report displays, on a US GAAP basis, full-year and fourth quarter earnings per diluted share of \$1.66 and 48 cents respectively, reflecting an increase of 29% and 9% year-over-year respectively. Ball's full-year and fourth quarter comparable earnings per diluted share were \$2.53 and 71 cents respectively, reflecting an increase of 15% and 29% year-over-year respectively.

The report also displayed that Ball's global beverage can volumes had increased by 5% in 2019. Results reflect the 2019 sale of the company's Argentine steel aerosol business and Chinese beverage can assets, as well as the 2018 sale of the company's US steel food and steel aerosol business.

"We finished 2019 on a strong note, with fourth quarter comparable operating earnings increasing 14%, comparable earnings per diluted share increasing 29% and stronger than expected cash flow generation being driven by working capital improvements across most of our businesses. Over the past year, our global beverage volumes increased 5%, our aerospace contracted backlog increased 14% and we were able to sell underperforming assets.

"With global customer and consumer demand for aluminium packaging solutions continuing to outpace existing supply, our previously announced aluminium beverage can and cup projects will add at least eight billion units of capacity by the end of 2021," said John A. Hayes, chairman, president and chief executive officer.



"Throughout 2020, our focus will be on execution through improving our operational excellence and customer service, amplifying the sustainability benefits of aluminium packaging, and executing beverage and aerospace investment projects. In the near- and long-term, our business portfolio is well positioned to deliver on our financial goals and increase shareholder returns for many more years."

### Outlook

Commenting on the overall outlook for Ball Corporation, Scott C. Morrison, senior vice president and chief financial officer, had this to say:

"In 2019, we met our goals of generating nearly \$1 billion in free cash flow and returning in excess of \$1 billion to shareholders, in addition to investing \$600 million to expand our capabilities and initiate multi-year plans to increase our global beverage can production. Our successful November 2019 euro-denominated bond issuance resulted in favourable rates and a larger than typical cash balance at year-end.

In January 2020, we redeemed the outstanding 3.5% and 4.375% 2020 senior notes. The company continues to operate from a position of strength with earnings growth and cash flow to support disciplined growth investments and consistent return of value to shareholders in the range of \$1 billion in 2020."

Hayes added: "We are building our future today. Managing the growth in our existing businesses, being the sustainability leader, enabling the go-to-market strategy for our new aluminium cups business, and executing our disciplined capital allocation strategy is an exciting way to embark on 2020 and beyond."

## Canpack focuses on renewable energy

The Canpack group is increasing the share of renewable electricity sources used in its operations.

In 2019, 70% of electricity in Canpack's plants located in Brzesko, Bydgoszcz, Debica, Tarnów, and Orzesze came from renewable energy sources.

The current agreement with the electricity supplier stipulates that in 2020 all electricity used in these plants will have guarantees of origin from renewable sources. A similar contract was signed for the Canpack Group's production plant in Scunthorpe, England. An increasing number of the Group's plants are becoming equipped with photovoltaic solutions which are installed,



among others, on factory roofs. "Sustainable development is key for the Canpack Group. We take responsibility for our impact on the environment. To minimise it, we are constantly improving

our systems and production processes," said Roberto Villaquirán, CEO of the Canpack Group.

"We have recently implemented a new sustainable development policy in the company, based on three pillars: care, sustain, recycle. One of its important elements is to limit our impact on climate change by, among other things, seeking to improve the efficiency of consumption of raw materials and energy or using renewable energy sources."

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## SURPRISING NUMBER OF PEOPLE IN THE UK NEVER RECYCLE

As part of its Environmental Innovations series, exploring how British businesses and consumers are becoming more environmentally friendly, innovation specialist MPA has explored the statistics behind the British public's perceptions of a plastic-free society.

Research conducted by MPA found that more than four in five (83%) British people support the plastic straw ban, the government initiative that will see plastic straws, drinks stirrers and cotton buds prohibited in England from April 2020.

A similar level (88%) say that they always make an effort to recycle, although 60% of respondents admit they need help to reduce the amount of plastic that they use. More than 3%, the equivalent of two million UK adults, admit to never recycling any plastic.

The top five most common personal efforts to reduce packaging include:

Trying to re-use disposable items (e.g. plastic bags) – 67%

Making an effort to buy fewer goods with packaging that cannot be recycled – 32%

Making an effort to buy more products made from recycled materials – 24%

Trying to avoid supermarkets and shops that do not use recyclable packaging – 8%

Paying extra for goods that with 100% recyclable packaging – 6%

Although the public were overwhelmingly in favour of the changes and are seemingly making an effort to reduce plastic waste, one in six (17%) don't think the plastic pledge will make a difference to the level of waste produced. A further one in ten (9%) believe there is no difference in plastic or paper bags in the context of the environment.

The knock-on effect of more consumers making a conscious decision to use more sustainable packaging also has implications for businesses – particularly ones that offer customers sustainable options.

Just 26% of Brits wouldn't pay more for products that are good for the environment, although a similar number (28%) say they do take into consideration whether or not a product is labelled as environmentally friendly before making a purchase.

However, this isn't the case for all consumer goods, with half of Brits admitting they would not wear eco-clothing that can be worn without the need for washing.

Stuart Bentley, delivery manager at MPA, said: "Packaging is a huge industry in the UK, accounting for annual sales of around £11



billion, and our research has found that consumers are shunning single use plastics and unsustainable packaging in a bid to reduce their carbon footprint.

"Although there is some way to go before we become a completely plastic-free society, government schemes such as the plastic straw ban and its investment into making the country a global leader in sustainable packaging will definitely play its part.

"Arguably, the packaging industry is the sector which has had the biggest overhaul in recent years, but several companies are continuing to innovate, and as a result, are playing a leading role in offering consumers the chance to make more sustainable choices."

## INX International to acquire RUCO Druckfarben

INX International Ink has announced it has entered into an agreement to acquire RUCO Druckfarben, a leading printing ink manufacturer in Eppstein, Germany.

The transaction is expected to be completed by the end of the first half of 2020.

"RUCO is an established and recognised ink supplier with considerable market experience and technical knowledge. Together with our global reach, product development and raw material sourcing capabilities, the new company will work to strengthen INX's presence in Europe," said Peter Lockley, president of INX Europe.

"Our integration will focus on combining the technologies of the two companies for the benefit of customers.

"With this investment, we plan to advance their portfolio and expand RUCO's lead position as a supplier to the toy, pharmaceutical and packaging industries. Customers will have greater access to the world-class technologies and best practices leveraged from the larger global presence of our parent company, Sakata INX."

"We are very pleased that we have found a partner with INX who shares our values and



wants to lead the RUCO Druckfarben brand into the future," said Heinz Walter Menke, owner and managing director. "The know-how of our employees in screen and pad printing optimally complements the portfolio of INX. Our customers can continue to rely on our commitment to combine best quality with excellent service."

Once the transaction is finalised, Moritz Hartmann will take over as sole managing director and will manage the company with the current leadership team. Hartmann has been a member of the RUCO Druckfarben management team since 2015. The company itself was founded in 1857 and today employs approximately 150 people, with representatives in more than 70 countries.

## Roeslein & Associates contributes to Fostering Futures

Roeslein & Associates' collected money last year to purchase holiday gifts for three brothers through Fostering Futures.

Fostering Futures is a non-profit organisation serving children and youth in foster care in St Louis and surrounding counties in Missouri.

Roeslein & Associates' procurement manager Madeline Hammel said: "Every year around the holidays we, as a company, try to find a way to give back to our local community. It's important to us to realise that there are others that are less fortunate, and what might not be a lot for us, could mean the world to someone else.

"This year, we were able to 'adopt' three brothers in foster care by fulfilling their entire Christmas wish list as well as providing them with some essentials. The turnout of donations from the Roeslein family was truly above and beyond what we expected. We went through the organisation Fostering Futures, which was able to help 209 local children and young adults feel the magic of Christmas.



## Ball and Bud Light presented aluminium cups at Super Bowl

Centerplate, Ball Corporation and Bud Light brought Ball's infinitely recyclable aluminium cups to guests at Hard Rock Stadium in Miami Gardens for Super Bowl LIV on 2 February 2020.

Centerplate, the exclusive catering partner for Hard Rock Stadium, adopted the cups as part of the company's Better Tomorrow 2025 goals and to help forward the venue's broader

mission to phase out 99.4% of single-use plastics this year.

As the NFL's official beer and the presenting sponsor of the Super Bowl LIV cups, Bud Light is also doing its part to make a Better World and support Anheuser-Busch's ambitious 2025 sustainability goals. As a result, the aluminium cups will help eliminate more than 500,000 plastic cups annually from Hard



## AkzoNobel earns five 'Top Employer' titles

Dutch paints and coatings company AkzoNobel has been recognised by the Top Employers Institute for its excellence in creating the best conditions for its employees in the key markets of Brazil, China, the UK, Netherlands and the US.

AkzoNobel continues to build on its strong track record of people-driven initiatives. This year saw the company gain its first Top Employer certifications in both the Netherlands and the US, with eight consecutive years in the UK, seven in China and four in Brazil.

Opportunities for growth and development, working environment, company culture and benefits are some of the topics considered

in the Top Employers Institute's review, which evaluates companies against best practices in human resources.

"We see treating our employees with respect, developing our talent and becoming a more inclusive and diverse company as vital to the business," said Marten Booisma, chief human resources officer at AkzoNobel.

"We all grow and succeed together. That's why our people are a major part of our People, Planet, Paint approach to sustainability.

"By creating a great place to work for our people around the world we are building a sustainable future and I'm very proud that the Top Employers Institute recognises our efforts."

Rock Stadium's supply chain.

"We're proud to team up with Centerplate and Bud Light to bring fans at Hard Rock Stadium improved, sustainable hospitality with our game-changing and infinitely recyclable aluminium cup," said John A. Hayes, Ball's chairman, president and chief executive officer. "We developed the aluminium cup to ensure it meets THE growing demand for more green products, and we're excited that our partnership will give this year's Super Bowl fans the opportunity to do better by the environment."

"We're excited to be working with like-minded partners to put sustainable solutions in the hands of football fans on this amazing stage," said Adam Warrington, vice president of Better World at Anheuser-Busch. "Bud Light has a storied history of celebrating NFL moments and we hope this will be the first of many occasions they can enjoy it from an infinitely recyclable cup."

During the Super Bowl, 50,000 of the 20oz cups available in the clubs, suites and general concourse areas of the stadium. After the game, the cups were available at Hard Rock Stadium throughout the year for Miami Dolphins games, University of Miami college football games, international soccer matches, concerts and all other events that take place at the global entertainment destination.

Hard Rock Stadium became the first professional football arena to feature the aluminium cups at scale when it debuted them during the Miami Dolphins' final home game of the season in December 2019.

"We are always striving to be leaders in providing innovative solutions for our clients and guests, especially in support of our mission, vision and values," added Centerplate chief executive officer Steve Pangburn. "This is another example of a forward-looking enhancement that will help us reduce our environmental impact in the months and years ahead, not only in Miami but in support of our global mission to make it better to be there in the communities which we serve."

## The effect of greener living on consumer habits

Climate change was arguably the biggest news topic of 2019, and environmental discussions continue into 2020.

Recent YouGov research has revealed that consumers are changing their shopping and eating habits in order to reduce carbon footprint, with 61% of Brits believing climate change to be the largest threat to civilisation.

MPA has conducted research through YouGov Profiles to understand the change in modern lifestyles, and to identify the businesses who are meeting the public demand for greener options.

Here are some of the research's findings:

- 49% of Brits try to only buy from socially and environmentally responsible companies
- 25% of consumers say they only buy products from companies whose ethics/values they agree with
- 45% agree that big companies are trying to improve and 'go green'
- 29% of the people surveyed were of the belief that people worry too much about the environment.

AS single-use plastic was highlighted as one of the key factors for ocean pollution, Plastic



straws, stirrers and cotton buds are all set to be banned in April this year as part of a new Government initiative.

The MPA research found that 83% of the people surveyed agreed with the government's plan to ban these plastics, with only 17% contesting that the ban won't make a difference to the amount of waste produced. With staggering consumer support behind environmentally-friendly initiatives, it's no surprise that so many large businesses are making changes to implement them.

Morrisons recently became the first supermarket to remove black plastic from all its own-brand food and drink packaging, with a wider view to make all its packaging recyclable, reusable or compostable by 2025.



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## BUNTING JOINS BMRA

Bunting has joined the British Metals Recycling Association (BMRA). The BMRA trade association represents the £7 billion UK metal recycling sector, which in turn represents over 250 organisations. BMRA members produce environmentally-friendly raw materials to metal manufacturers.

"We are proud of our strong association with UK metals recycling industry, which was the primary reason for joining the BMRA," explained Bunting's European managing director, Simon Ayling. Bunting's new membership reflects the importance of its Magnetic Separator and Eddy Current Separator technology for the separation and recovery of valuable metals.

Bunting has been supplying metal separation equipment to the metals recycling industry for many years now. Bunting first introduced its Eddy Current Separator in the early 1990s, and the separation technology of non-ferrous metals has since evolved, with three different models appearing which enable enhanced metal recovery of aluminium, copper and other non-ferrous metals. The most recent development is Bunting's ultra-high strength Stainless Steel Magnetic Separator, which separates fragmented stainless steel from non-magnetic metal mixes.



"The industry focus is both on maximising recovery and purity," said Ayling. "Waste materials destined for landfill need to be as metal-free as is practically possible. However, metals manufacturers are also keen to reduce waste and are demanding higher purity recycled metal feed. Our role is to provide the best separation technology."

Bunting joins the BMRA just two months after announcing its membership of the Polymer Machinery Manufacturers and Distributors Association.

"Membership of key industry associations enables us to meet and talk with key industry professionals on a regular basis," said Ayling.

"This allows us to better understand issues in the industry, which will drive our product development."

## Ball Corporation launches aluminium bottle line



Ball Corporation is launching a new impact extruded aluminium bottle line that provides a circular solution to plastic pollution – the Infinity Aluminium Bottle – that is designed to be made again.

Available in various shapes and sizes, this impact extruded aluminium bottle can be customised for numerous beauty, personal care, food and beverage products.

"Plastic waste that ends up in the natural environment has led to more public discussion about packaging, its lifecycle and recyclability," said Jason Galley, director of innovation and sustainability. "Consumers are demanding more environmentally friendly solutions for packaging their everyday products. We combined our product design and sustainable aluminium packaging expertise to develop another truly circular packaging solution – the Infinity Aluminium Bottle."

## Tesco scraps canned multi-packs from all of its UK stores

Tesco will become the first UK retailer to remove canned multipacks from all its stores and replace them with plastic-free multi-buys. This will see 67 million pieces of plastic eliminated.

All cans will be available individually, with no plastic wrap holding them together any more. They'll still be eligible for multi-buy deals, representing the same value for customers, just without plastic.

The change applies to both Tesco own brand products and branded products, like Heinz. It will help more than eight million households in the UK reduce the amount of plastic they use, and contributes to Tesco's commitment to remove one billion pieces of plastic from its own brand products by the end of 2020.

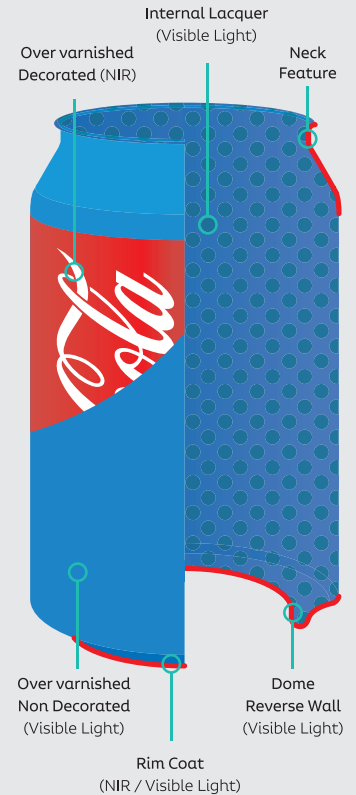
Tesco CEO, Dave Lewis, said: "We are removing all unnecessary and non-recyclable plastic from Tesco."

"As part of this work, removing plastic wrapped multipacks from every Tesco store in the UK will cut 350 tonnes of plastic from the environment every year and customers will still benefit from the same great value 'multipack' price."

"This is part of our plan to remove one billion pieces of plastic in 2020."

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As Roeslein celebrates its 30th anniversary, it is pleased to announce the opening of its new engineering and fabrication operation in the São Paulo region of Brazil.

The expansion into South America will allow Roeslein to foster deeper relationships with customers and provide world-class project execution where they need it most.

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## Domino to demonstrate 'Factory of the Future' solutions at Interpack



Domino Printing Sciences will appear at Interpack 2020 to demonstrate smart, connected factory solutions for producing customised, on-demand, innovative products, while ensuring that customer safety, compliance, and waste reduction remain top priorities.

Domino's event space will provide visitors the opportunity to meet with industry experts and explore topics such as: using automated coding solutions to reduce errors on product packaging, adopting late-stage label customisation to improve production efficiency and partnering with Domino to meet sustainable packaging targets.

### Error-free coding

Domino's coding automation software can be integrated with existing ERP and MES systems to handle product message change-over and work in unison with external vision systems for message validation.

Adem Kulauzovic, director of Coding Automation at Domino, said: "Having the

ability to transmit and share data between systems and software providers is essential for factories looking to maximise their efficiency. It's important to find a partner, like Domino, that has experience in integrating systems, and working together with other companies and integrators easily and efficiently." Domino will be giving demonstrations at Interpack of its coding automation software, QuickDesign.

### Late-stage customisation

Domino's options for late-stage customisation offer increased control over product identification and coding, allowing manufacturers to easily adapt to smaller batch sizes, tighter lead times, and changing packaging concepts.

"Our options for late-stage customisation allow manufacturers to meet more of their product identification and coding requirements within the factory walls," said Craig Stobie, director of Domino's Global Sector Business. "Shifting reliance from an external

packaging provider allows our customers to have more line agility to respond more easily to evolving consumer demands, while driving down costs and reducing packaging waste."

### Sustainability

Attendees of Interpack are invited to speak one-on-one with experts in materials science at Domino's central sustainability 'hub', to discuss how to mitigate some of the risks involved in sustainable packaging design.

Dr Susan Palmer, Domino's head of Global Pre-Sales, said: "It's important to remember that any change in packaging materials can have a significant impact on the reliability, durability, and legibility of codes.

"Domino's technical specialists work very closely with customers to source and test new and improved sustainable packaging materials, in order to determine the best coding and marking solution available."

## UTC Overseas releases statement concerning Coronavirus

Logistics specialist UTC Overseas has released a statement regarding the impact of the Coronavirus on its supply chain:

"The Novel Coronavirus is impacting many areas of China creating a disruption to the supply chain during a time when the country would normally rebound after the Lunar New Year.

"Manufacturing is ramping up but at a slower rate than usual, while cargo arriving and departing China is moving but not at the usual pace. Getting supply chains back to normal will be challenging and may not happen until the spring in some areas. Freight capacity, outbound especially, will be an issue when manufacturing resumes. Not knowing when the virus will peak is a variable that will affect the overall recovery.

"We have received notifications of blank sailings that are reducing available container volumes. Many passenger and cargo flights are cancelled, having a big impact on airfreight with some carriers not planning to resume full service until April. A reduced labour pool is affecting trucking and warehousing capacity. Rate increases are expected once China returns to normality.

"At this time, UTC personnel are safe with many working from home. Our offices are following all government precautions."

## Stolle to display technological advances at Metpack

Stolle Machinery will be displaying advances in can forming, decorating, end making and automated controls at Metpack 2020.

The main components of Stolle's Inkjector, which was first introduced at Metpack 2017, will be on display, including a simulated high speed 360-degree vision inspection camera and cylinder registration station. Print quality feedback from the camera allows the Inkjector to control both the plate cylinder registration and inker fountain keys in real time to maintain print quality while the decorator is in production.

Also on display will be a new bottom reformer module for the Stolle E-NCKR. This is Stolle's premier die necking, flanging and inspection system which was first introduced at Cannex 2018 in China. Another new system is the new Stolle EO6 six-out easy-open end conversion system that features

a new 140-ton press. Video and photos of the machine in operation will be on display at Metpack, as well a set of tab and lane dies.

Additionally, Stolle will have updates on its new Canceptor bodymaker, as well as a redesigned and upgraded redraw system for the Stolle Ragsdale Bodymaker. There will also be a demonstration of Stolle's

inSight plant-wide automation and intelligent control software, as well as new information on Stolle Global Systems, which will feature its successes around the world in designing and building can and end lines, as well as complete plants.

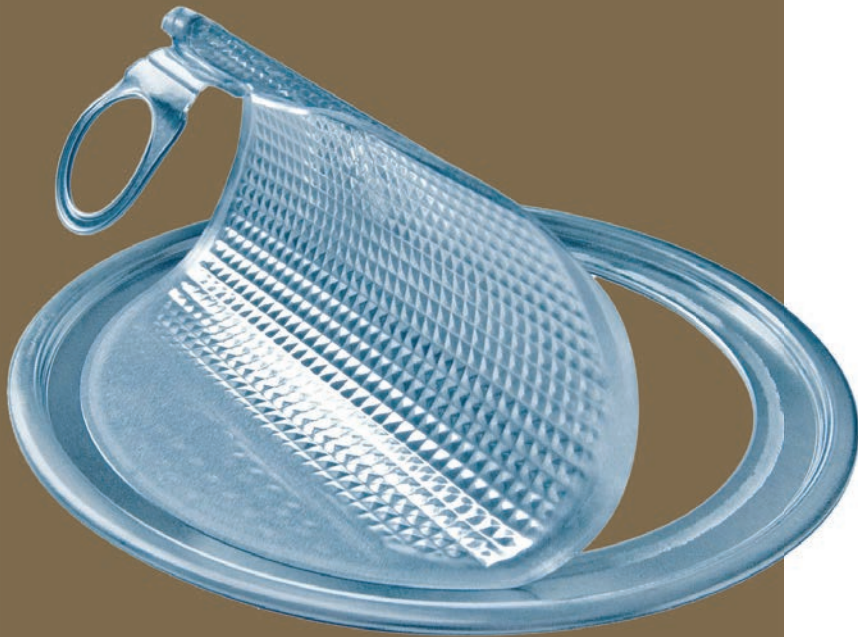
Toyo Seikan will also have a presence in the Stolle booth, providing information and demonstrations on new technologies, its TULC production line and its new bodymaker D&I tooling that only requires changing once a year.



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# The top can making trends of 2020

Market research specialists Acumence examine the trends set to hit the can making industry in 2020

There are four key trends set to hit the industry in 2020. This article examines them in turn:

## 1. Increasing demand for small batch sizes and frequent changeovers

Can filling companies are becoming more and more creative with branding and marketing. They are changing the designs on their cans more frequently (think personalised Coke cans or a video game advertisement on a Mountain Dew can).

To facilitate this, can manufacturers are beginning to replace their conventional lines that produce batch sizes of 300,000 cans with lines that are built for smaller batch sizes.

Additionally, can manufacturers are beginning to service an increasing variety of customers. Therefore, conventional lines are becoming a thing of the past, and lines that produce smaller batches are becoming more practical. All of this leads to an increase in changeover. Manufacturing facilities must be able to changeover more frequently and more quickly.

Unfortunately, changeover can negatively impact quality. But there is hope! Manufacturing business intelligence solutions allow can makers to track their changeover times in order to improve their operational efficiency. Not only are changeover times tracked, but quality is monitored before and after a changeover.

### **Our Advice:**

Use a business intelligence solution that can track changeover times and monitor quality before and after changeovers. This allows manufacturers to quickly identify problem areas and provides the insight to correct it.

## 2. Machine vendors and integrators look to the Internet of Things (IoT)

The big topic lately seems to be smart devices and machines (IoT). The majority of IoT solutions are point solutions that create silos of information.

Plant-wide strategies are becoming increasingly important, even with the increase of connected machines. As machine vendors develop their own distinct IoT solutions, efficient data collection can become more and more difficult.

### **Our Advice:**

Use an IoT solution that has complete plant-wide visibility, rather than separate silos of data. Selecting a manufacturing business intelligence solution with a contextual view of the entire plant is much more valuable than having separate IoT solutions implemented on machines across the plant.

## 3. Continued interest in global fulfilment

It's much easier to manage a global network of plants when they implement consistent strategies. Having the same solution across all plants in an enterprise yields increased efficiency and more effective decision making. Consistency aids in training opportunities, management, data analysis and efficiency.

### **Our Advice:**


Deploy your chosen solution across all plants to get a common view of your data, or one version of the truth.

## 4. Material costs continue to weigh on manufacturers

Materials are typically the largest expense in a manufacturing enterprise. You cannot get rid of this cost; however, you can control it with the right business intelligence solution. A solution that can track consumables, reduce scrap, and reduce opportunity cost is worth the investment.

### **Our Advice:**

Use a solution that is able to track consumables. If the solution indicates that you have defects or incorrect lengths of consumables, use this data to work with your supplier.

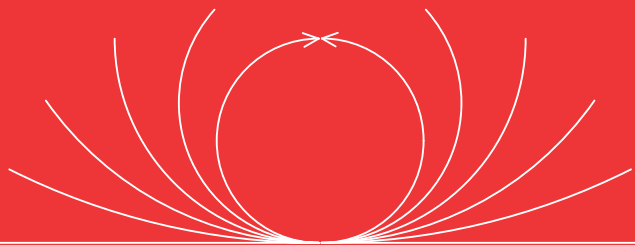
Look for a solution that will highlight problem areas and reveal opportunities to reduce scrap and opportunity cost. 

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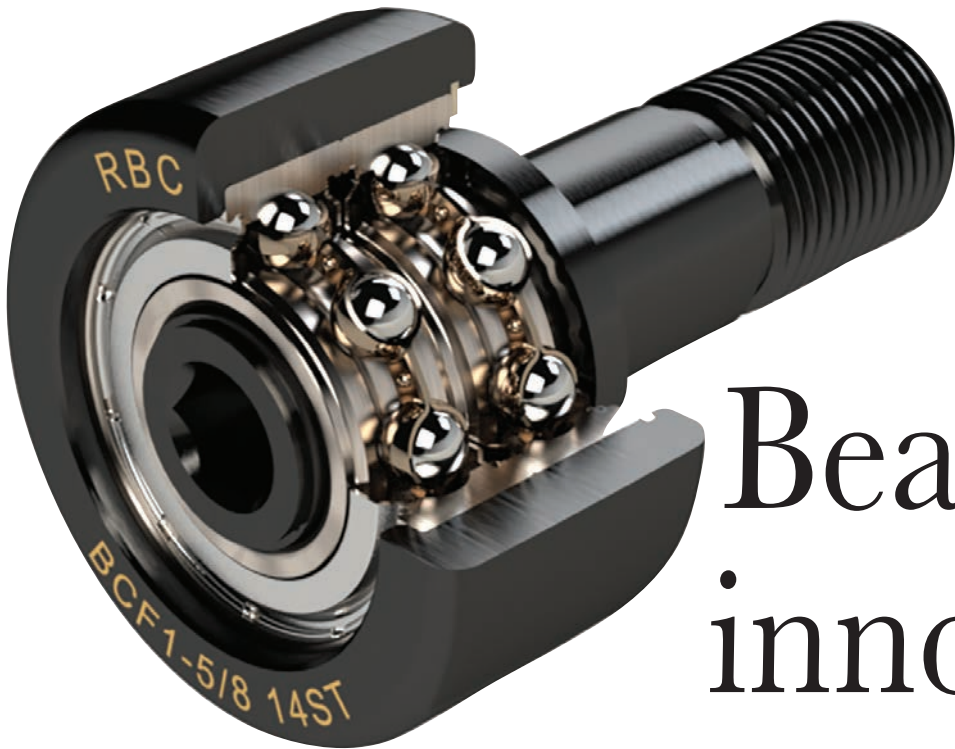
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RBC's "triple threat" of Solutions for Neckers. BCF15/814ST- Lubed-for-life double row ball bearing cam follower with steel outer ring



# Bearing innovations for maximum machine performance

**F**aster, Faster, Faster! As the industry is clamouring for more production with less down time, the production machinery is in dire need of components that are built for the new demands. As the machines are pushed to new limits, the metallic components, like bearings, experience different loading conditions, duty cycles and heat can be detrimental to the bearings' long-term performance. Elevated temperatures break down the lubrication's ability to develop the proper lube film between two metallic components.

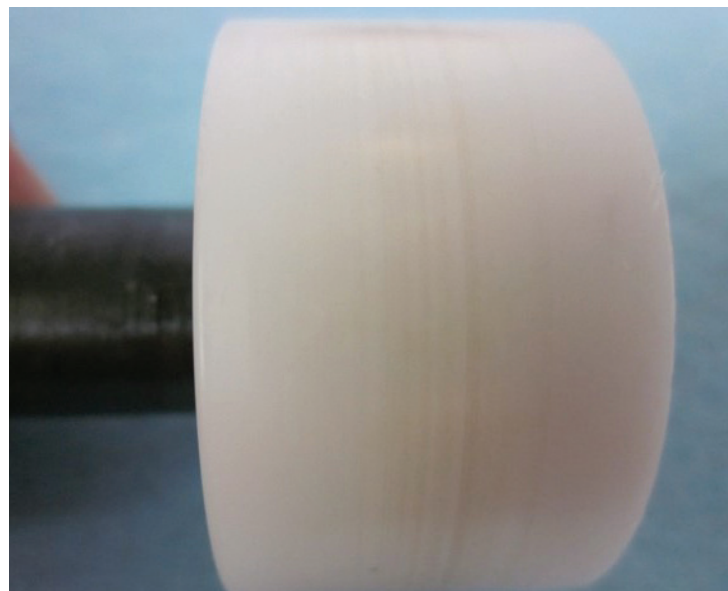
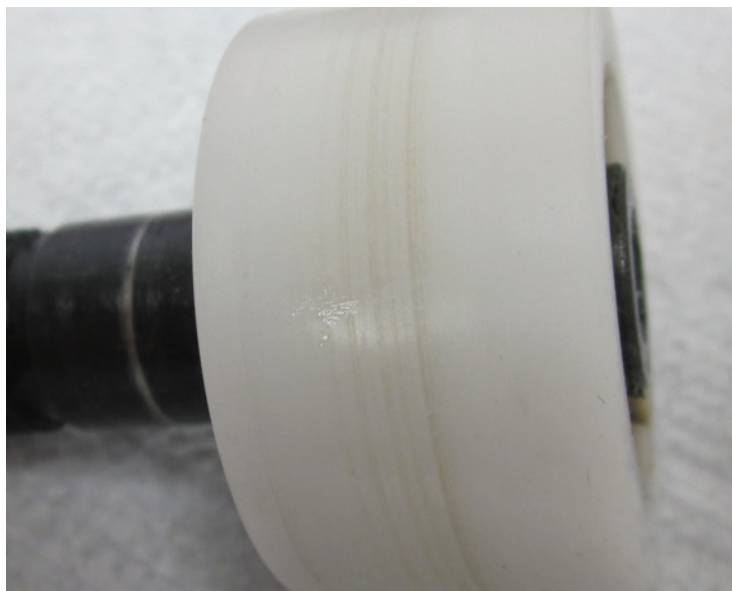
## BEARINGS SPECIALIST

RBC Bearings has committed itself to understanding the production demands and most troublesome applications in a can manufacturing production facility. While keeping in mind that every plant is striving to gain more production by running faster and longer, RBC designs products with just that in

RBC Bearings has a quest to improve bearing performance on neckers, while reducing machine maintenance and downtime. *CanTech* reports

mind. Knowing that the necker is one of the most important assets in the plant in meeting production goals, RBC Bearings has focused on the cam followers, developing solutions to maximise speed capability, reduce maintenance and extend life, station by station.

RBC engineers first began this work in the early 2000s by addressing many of the shortcomings of the needle bearing being used, the biggest of which was the inability to support thrust loads. These thrust loads are unavoidable in the necker due to its orbital motion, which causes a speed differential ▷



RBC can extend the life of bearings and master cams

across the outer ring.

To address this, RBC designed a double-row cylindrical bearing with a patented centre thrust ring. This centre thrust ring not only provides roller guidance, but also allows for optimal thrust load support with zero-gap design. Additionally, this new design uses larger rollers for longer life and load carrying capability and utilises a better seal, more suited for these high-speed applications. This bearing design was quickly adopted by can plants around the world and proved to be a great improvement by providing increased speeds, increased load capacity, and a longer, more reliable bearing life.

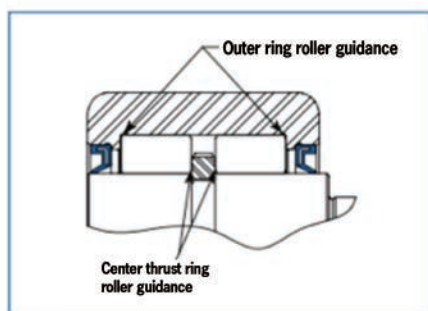
Around 2010, RBC engineers went to work

little to no wear of the cam. By moving away from the steel outer tire to a material that is more lubricious and softer than the cam itself, the cams should effectively last forever.

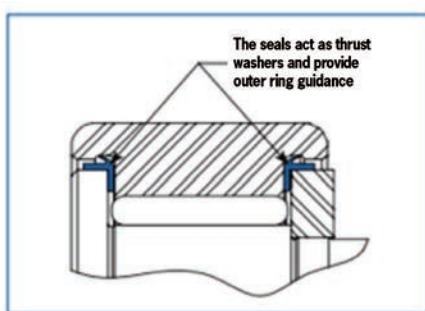
Building upon over 80 years of cam follower design experience, RBC was able to supply a new, patented, high performance cam follower for the necking stations. The development includes two light weight, maintenance-free ball bearings in place of the traditional needle rollers. These greased-for-life ball bearing cam followers, with a low friction, self-lubricating outer ring, have the added benefit of reduced weight and lower rolling resistance. When combined with the removal of the auto lube components there is a considerable reduction in rotational mass resulting in significant energy savings per line.

The outer ring material was carefully selected for optimal performance and durability. An extensive review of engineered polymers and a study of their mechanical properties resulted in the selection of the ideal material. RBC engineers defined the proper assembly method of two high-quality, greased-for-life ball bearings into the selected polymer outer ring to assure perfect fit and shape to effectively spread loading across the contact patch. The final result is a cam follower that is a drop-in replacement for the original all-steel roller cam follower that required constant re-greasing.

In-house testing was conducted at the RBC West Trenton, NJ facility. The newly developed cam followers were tested under rotational speeds and loads that simulated the average running conditions of the most popular necking units used in can plants around the world, and several rounds of testing demonstrated the new cam follower is up to the task. It also demonstrated that it outlasts similar competitor's products by a factor of two.



**Cylindrical Roller Cam Follower**



**Needle Roller Cam Follower**

with the objective to design a cam follower that would allow plants to remove the error-prone lubrication systems and protect expensive cams from metal-on-metal wear. It was important to eliminate the need for these annoying lube lines, as they are thin and delicate. With hundreds of lube points per machine, they can easily be bent, snap off or wax up from elevated heat. All these issues can result in starving the bearing of its vital grease flow. Also acknowledging the expense and time associated with cam replacement, we wanted to design a cam follower that would cause



Once the design was internally validated, the RBC team worked with the can plant back-end supervisors to intensively trial these new cam followers in actual field conditions to ensure they would pay dividends in the necking line.

In the field-testing program, the plants would outfit one complete necking station with the new maintenance-free cam followers and run at full production speed – between 2,150 and 3,400 cans per minute. Cam followers were pulled for evaluation after two months, four months, six months and 12 months of operation. These cam followers were returned to RBC and a thorough post-test examination was conducted to rate performance success and determine design improvements. A detailed report was written at each stage and reviewed with the can plant.

As the product demonstrated success, the good word spread, and the field test program expanded to include up to 20 can plants in North America and Europe. The entire programme spanned four years and resulted in can plants around the world converting their necking lines over to the new maintenance-free cam follower.


And plants found the value! Moving to lubed-for-life bearings enabled plants to remove those messy and unreliable lubrication lines while extending the life of bearings and master cams. Light weighting the system allowed for faster production speeds. Due to this success, can plants have estimated the savings these bearing provide to be as high as \$400,000 annually.

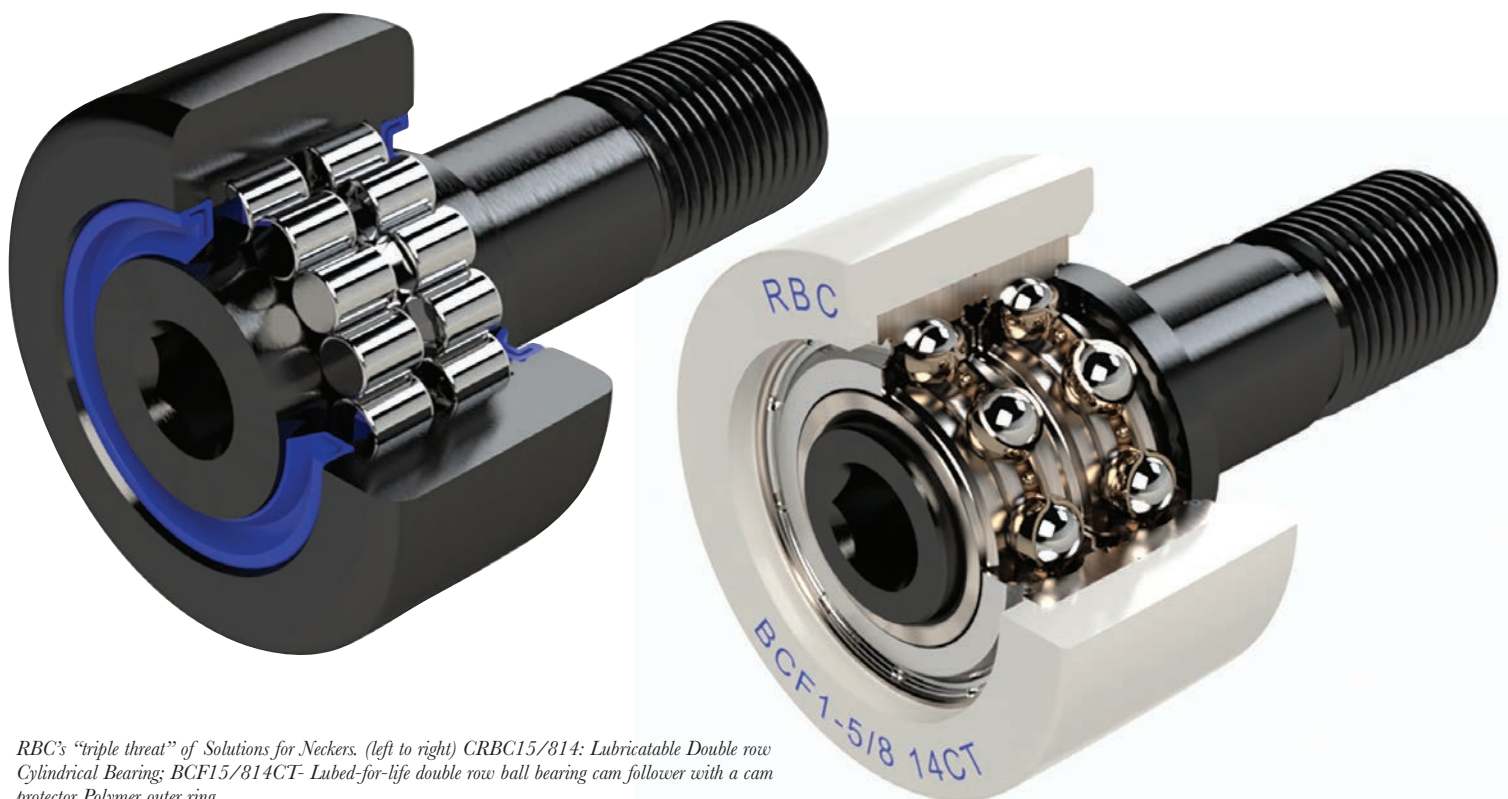
Can plants have claimed that they spend up

Moving to lubed-for-life bearings enabled plants to remove those messy and unreliable lubrication lines while extending the life of bearings and master cams. Light weighting the system allowed for faster production speeds.

to 30 man hours a month cleaning lubrication in and around the cams. This excess grease can cause contamination residue on the product and make for an unsafe and slippery work environment... not to mention being messy and costly! Using lubed-for-life bearings, the necker operates much cleaner and is easier to work on!

RBC has continued to expand our patented, maintenance-free technology to other applications in can plants. With the expansion of this product, we're able to take a tailored approach to selecting the right cam follower for any and every necker operation. Some plants (or even stations within the plant) run hotter. Some plants run faster. In others, cam surface condition is not as smooth and free of dents and debris.

For this reason, they have adopted a supply approach we call the “triple threat” of necker bearing offerings. Using the same internal sealed and lubed-for-life ball bearings for the rolling elements, we utilise a steel tyre material for maximum durability and protection from worn cams and other more demanding application conditions. This steel tyre outer with low friction ball bearings has allowed can plants to increase their production speed. 



RBC's “triple threat” of Solutions for Neckers. (left to right) CRBC15/814: Lubricatable Double row Cylindrical Bearing; BCF15/814CT- Lubed-for-life double row ball bearing cam follower with a cam protector Polymer outer ring

# The current status of coatings and inks



Evert van de Weg examines the current trends of coatings and inks for cans from some of the key players within the can making industry

The first can coatings were made of oleoresins, mixtures of oil and resin extracted from plants. These coatings are rather flexible and easy to apply, but they have a limited corrosion resistance and need long curing times. In the first half of the 20th century, the growing can makers in the west like Continental Can, Metal Box, American Can, Carnaud, PLM, Schmalbach, Thomassen & Drijver and others put huge efforts, together with professional coating suppliers, in the development of suitable can coatings.

In the 1950s, epoxy resins were introduced as coatings for steel and aluminium. Their stability, protective function and technical properties made them the most commonly used coating material. Most epoxy coatings are synthesised from bisphenol A and epichlorohydrin. Today, epoxy-based coatings have a market share of approximately 90 per cent.

## HEAVY ACCUSATIONS AGAINST BPA-CONTAINING COATINGS CHANGE THE PICTURE

For several years now, BPA has been negatively in the

spotlight. There were claims that BPA may exhibit so-called endocrine activity and may even be carcinogenic. The public fight in the press over admissible levels of BPA in coatings were very fierce but after some years of arguing, the common understanding was that the public discussion should end and that non-BPA containing coatings were a must.

All major coating suppliers had already started vast research efforts. Patent filings for dozens of substances witness how much R&D effort companies like PPG Industries, AkzoNobel and Valspar were putting resources into finding coating formulations that would get rid of BPA and be able to meet all the heavy requirements on can coatings. In the meantime, the pressure to ban BPA-containing can coatings has increased quickly.

In the EU, strict rules for the maximum amount of BPA that was permitted per package were introduced. The US and France completely banned BPA years ago in all food packaging and the debate in the press was so negative about BPA-containing packages that the only way was clearly a complete replacement of BPA in all food packaging. The worldwide suppliers of can coatings took



up the challenge and came up with appropriate solutions, all with their own specific formulations.

### CAN COATING SUPPLIERS TOOK UP THE CHALLENGE

In 2017 Dow Coating Materials presented its durable alternative to traditional epoxy-based can coatings by introducing its Cavera Polyolefin Dispersion system. The product won the 2017 Bronze Edison Award for Packaging, in addition to three awards in 2016, including 'Best Product Innovation 2016'. Jan Weernink, global marketing director from Dow Coating Materials, said: "Our award-winning Canera Technology offers a next generation approach to sustainable coatings that protect the contents of food and drink cans."

We asked Dominique Fort, global key account director of AkzoNobel for Industrial Coatings about their status with regards to BPA. For Fort, the BPA discussion has been prominently present in the can making business in the last few years.

"We introduced our Vitalure range some time ago. We are proud to provide our customers with a portfolio of products with a proven track record of performance, application robustness and regulatory compliance. This portfolio of leading technologies can address the specific needs of our customer from our trusted legacy epoxy coatings to our latest high performance BPAni coatings.

"Our customers are looking for consistently high-quality products delivered by a reliable partner – a partner that will bring value to their business through great product, technical knowledge, line side service, and the ability to innovate with them. It's our goal at AkzoNobel to continue to meet these needs and delight our customers."

In terms of can makers, Fort outlined how the manufacturers have reacted.

"If we take a look at trends in the packaging industry, we see a rapid adoption of our Aqualure G1 50 BPAni inside spray product in Europe and the US," he says. "The emerging need for this technology has resulted from evolving legislation in France and California. This is a high quality, well tested product line that has already proven its worth to our European and American customers – customers that trust our technology, services and, the value and efficiency they can bring to their production process.'



"The packaging industry is also highly influenced by brand owners – they demand different can shapes and sizes to enhance their brand identity. They are looking for unique external effects like matt overprint varnishes and coloured ends which have been a strong trend in Europe, and growing in Asia.

"The North American market is seeing a growing design trend towards aluminium bottle cans. In the last year, we were very proud to regain our leadership position in the US in the BPAni inside spray market with our ▷



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Aqualure G1 50 product. We have converted multiple customer lines, which demonstrates the trust our customers place in our products and services.”

To stress the importance of its new non-BPA coatings, Sherwin Williams, the other supplier of can coatings, distributed its White Paper “*Revival of the Metal Can*” in December 2019. In 2017, Sherwin Williams completed the takeover of can coating supplier Valspar. Valspar had been quite active in the development of non-BPA can coatings as well. In its White Paper, Sherwin Williams describes the benefits of cans as a widely accessible and affordable solution to our needs for safe, nutritious and quality food and beverages.

The White Paper illustrates how cans can contribute considerably in solving the global food waste problem and how they can play an important role in the circular society, even a more important role than they do today. The paper underpins this with clear evidence and many numerical data.

However, the centrepiece of the White Paper is the presentation of its Valpure V70 series of non-BPA coatings. The paper says: “It matches the performance benefits of BPA-based coatings, but valPure V70 is based on epoxy ingredients that don’t contain BPA. For producers of food and beverages sold in light metal packaging (and the can makers who supply the packaging) valPure V70 delivers the performance brands have relied on for decades from epoxy coatings.”

The paper cites external scientific sources that provide compelling evidence of the absence of estrogenic activity. Further on in the paper, the huge advantages of metal cans in comparison with other packaging materials when it comes to recyclability and sustainability are clearly highlighted. All this led to the title “*Revival of the Metal Can*” for this quite complete document.

### UPDATE ON PRINTING INKS BY INX

Very recently, INX International Ink Co, based in the US, acquired the German printing ink manufacturer RUCCO Druckfarben. From the US, Alex Folloso, INX International Ink Co manager of Metal Decorating R&D updates us on moves on the front of printing inks for cans.

He commented: “INX metal decorating inks are not affected by the BPA discussion. BPA is related to resin chemistry common in coatings but typically are not used in inks.”


In terms of sustainability, what is the position of printing inks for cans when it comes to CO<sub>2</sub> reduction and the goal of a circular society? Folloso comments: “At this time INX is not aware of directives to reduce CO<sub>2</sub> emissions originating from ink. A source of CO<sub>2</sub> in the can making industry is from RTO’s (Regenerative Thermal Oxidizers), which control VOC emissions from process exhaust streams.

INX two-piece inks are formulated with less than 10 per cent volatile organic compounds and are printed at less than two micrometers in thickness.”

What about CO<sub>2</sub> emissions from UV curable inks? “Any growth in UV is happening in flat sheet metal where printers are transitioning from thermal curable to UV or UV / LED curable technologies,” he notes. “UV curable technology in two-piece existed years ago in a few can plants. However, can makers have converted to thermal cure 100 per cent due to inefficiencies caused by the UV process.”



The packaging industry is also highly influenced by brand owners – they demand different can shapes and sizes to enhance their brand identity

The common goal in the can making industry is to contribute to a circular society. How is INX able to contribute to reach that goal? Folloso adds: “INX is actively working on metal two-piece inks that are designed for cradle-to-cradle certification on beverage cans. The ink system will be called AP EcoCan C2C and is the first metal decorating ink to be Cradle-to-Cradle EPEA Material Health Gold Certified. AP EcoCan C2C is manufactured using only materials that have been optimised and do not contain any X or Grey assessed materials/chemicals. It’s formulated low VOC, BPA-NI and offers excellent transfer, good mobility, low misting and abrasion resistant.” 

# A LUXURY TOUCH



Iconic London retailer Fortnum and Mason has enhanced its luxury hot chocolate promotion with bespoke short run of tins printed on Fujifilm's Acuity B1 inkjet press. Fortnum and Mason's can maker of choice, William Say & Co, turned to Fujifilm, and the Acuity B1 to produce a high quality short run of tins for an in-store display

**F**ortnum and Mason, one of London's most instantly recognisable retail brands and owner of the capital's most iconic food hall, boasts a long, proud heritage of over 300 years. For the purpose of a recent promotion in its flagship Piccadilly store, the company needed a bespoke short run of ultra-high, quality printed metal tins in which to present its range of luxury hot chocolate. William Say & Co – London's last remaining independent can maker, founded in 1920 – was tasked with the project.

In keeping with the Fortnum and Mason brand, matching the colour precisely and achieving an extremely high quality finish was vital, but the challenge William Say & Co faced was finding a way to do this over a very short run. The company spoke with a range of specialist metal decoration service providers, but as all used traditional offset printing processes, the high set up costs involved meant that none were able to offer the ultra-short run

of printed metal sheets William Say & Co required to create the tins.

Here the long-standing connection between William Say & Co and Fujifilm proved invaluable. For more than 40 years, P Wilkinson Containers, William Say's sister company, has provided cans and plastics tubs to Fujifilm for its inks. Using a demo Acuity B1 inkjet printer at Fujifilm's Broadstairs, UK facility, the team digitally printed the high-quality, short run of metal sheets required.

William Say & Co manufactured the tins using solar power at its Bermondsey factory, just a stone's throw away from the product's final retail destination. At Fortnum and Mason, the large promotional tins, with their colourful printed designs, created an impactful Christmas display.


Stuart Wilkinson, marketing and sales director at William Say & Co, commented: "We've had a long



running relationship with Fortnum and Mason spanning two decades, supplying them with tins for their luxury hot chocolate, among other products.

“With this project, we’ve combined both heritage and innovation as these large promotional tins, which stand at 50cm tall, are the first in the UK to utilise Fujifilm’s breakthrough digital printing technology. And to be able to create these within such a short time frame opens up a whole host of new creative possibilities for can makers.”

Kevin Jenner, business manager, commercial, Fujifilm Speciality Ink Systems added: “William Say & Co and Fortnum and Mason are both iconic London brands, rich in heritage. We’re delighted to be able to unite them with the aid of Fujifilm’s digital inkjet technology. Thanks to Fujifilm’s extensive R&D and nearly two decades of pioneering inkjet technology in the graphic arts industry, Fujifilm is in an unrivalled position to offer can makers and metal decoration printers the means to stay ahead of market trends towards bespoke short runs of high end work.

“The Acuity B1 provides the enabling technology for metal decoration printers to add tremendous value to their clients’ businesses as well as enhancing their own credibility and reputation. Moreover, this partnership demonstrates the commercial benefits and value that digital print can offer the can making industry and how companies within the sector can stay competitive.” 

#### TECH SPEC

Maximum print speed - Up to 200 sheets/hr

Maximum media size - 1,050mm x 750mm

Maximum media thickness - 0.1mm up to 10mm

Inks - Uvijet KX and KH series (5kg bag-in-box)

Colour configuration - eight channels - (four and six colour CMYK or four and six colour CMYK x 2)

Printheads - Fujifilm Dimatix QFR7 (7 pl)

Dimensions (W x D x H) - 9,500mm x 3,100mm x 1,800mm





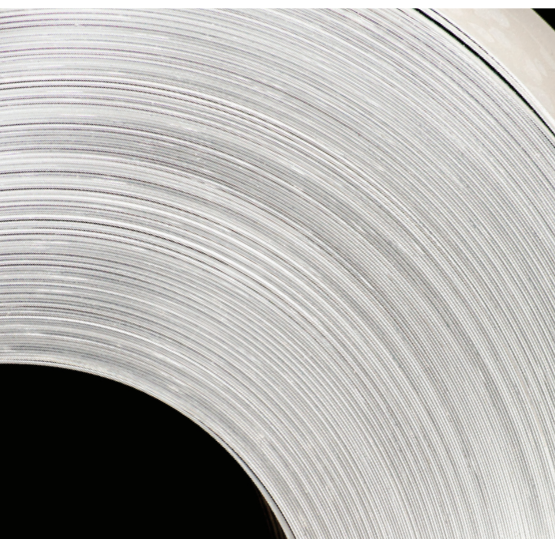


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# CanPack shares the spoils at CanTech The Grand Tour

CanPack India were the recipients of the Supreme Cup at the inaugural can making trade show in India

The event, which took place in Novotel Aerocity Hotel in New Delhi from 17-19 February, attracted global suppliers to India, to explore the potential growth of metal packaging within the territory.

The Grand Tour judging panel decided that, Canpack India's can in question, dedicated to the 'Share a Coke' campaign, was a worthy winner of the Supreme Cup.

This can in question was launched by Coca-Cola with its Share a Coke campaign, and the replacement of the logo with relationships such as Mom, Dad, Mentor etc.

In terms of the design, there were 24 variants of designs that were made during one production run; the technology enabled the can maker to execute bespoke promotions including the aforementioned 'Share a Coke'. The requirements were completed in just one production run overall.

In addition, a number of local makers scooped prizes, including Hindustan Tin Works in the aerosol category, and Maharashtra Metal Works in the decorative category.

The event was formally opened by Sanjay Bhatia, managing director, Hindustan Tin Corporation, and president, Metal Container Manufacturers Association of India. In his presentation, Bhatia outlined the growing potential of the metal packaging association in India.

The full review of the show is to follow in the April edition of *CanTech International*. [CT](#)



## The list of winners were as follows:

**Aerosol:** Hindustan Tin Works for its Baygon aerosol can

**Beverage two-piece:** Crown Packaging, with its Baladin POP can

**Innovation two-piece:** Canpack India with Share a Coke campaign

**Decorative:** Crown Aerosols and Promotional Packaging, for its Nicolas Feuillatte Champagne – World Heritage Limited Edition

**Speciality:** Maharashtra Metal Works with its Hershey's India Rectangular Tin

**Bottle can:** Ball Packaging with its BEB03

**Supreme winner:** CanPack India with its Share a Coke campaign



# Focusing on the metal industry in ADF/PCD Paris

Dominique Huret reviews the latest in can making developments at the recent ADF in Paris, France



Porte de Versailles, south of Paris, was the place to be for all concerned within the metal packaging industry. ADF/PCD fair attracted 650 exhibitors and more than 10,000 visitors over two days. In addition to 140 new exhibitors, the event brought together innovative packaging suppliers, influential packaging designers, buyers and specifiers in a carefully curated environment.

Global conferences are often a good place to catch up with regulatory context and as such ADF/PCD Paris was no different. Alain d’Haeze, secretary general at FEA, took the floor to insist on the importance of the full mobilisation of the industry to achieve a climate neutral and a circular economy to be ready in 2050.

“Decision and actions must be taken over the next five years,” he said. “Specifically relevant to our sectors from the European Green Deal is the creation of a toxic-free environment. For that, the Commission will present a chemicals strategy for sustainability in the summer this year.

“2021 should see the adoption of a zero pollution action plan for air, water and soil. The commission will propose the tighten air quality standards, while also reviewing the tightening of EU measures to address pollution from large industrial installations. The need to work together as an industry is greater than ever,” he concludes.

Alexis Van Maercke, secretary general at APEAL focused on the importance of “real” recycling. He opened his talk: “Since 2015 the packaging landscape has changed dramatically, from a linear to a circular economy. The Circular Economy Package has been reviewed with primary legislation adopted in May 2018. The secondary legislation on the measurement point of recycling and new reporting obligations are to be adopted by the Commission and validated by the Member States over the next few years.

“In the new reporting obligations applicable as from now, there are no extra reporting obligations for any steel packaging, including aerosols. This is good news. We can see that Circular Economy



legislation is provoking a shift towards real recycling. Indeed, when packaging is marketed as “can be recycled” is it really? Is it recyclable in a few places or widespread, how easy is to separate part? Is it entirely or partly recyclable? Is it possible to recycle once, twice or indefinitely? And what about economically viable or are subsidies needed? Real recycling requires all this conditions. But steel is and remain a model of circularity that works.”

## NEW INNOVATIONS

On the exhibition floor, among the metal packaging manufacturers, the atmosphere was rather positive. Ball Corporation had just announced the launch of a new impact extruded aluminium bottle line, the Infinity Aluminium Bottle.

Jason Galley, director of innovation and sustainability, Ball Corporation, commented: “Consumers are demanding more environmentally friendly solutions for packaging their everyday products. We combined our product design and sustainable aluminium packaging expertise to develop another truly circular packaging solution – the Infinity Aluminium Bottle.”

Available in various shapes and sizes, this impact extruded aluminium bottle can be customised for numerous beauty, personal care, food and beverage products. The bottles are available with a re-closable threaded cap that allows consumers to twist the top on and off.

Tubex was also ensuring a good visibility at the fair, with a strong presence in the awards competition. Their efforts have paid off, with two winning awards in the aerosol packaging sustainable technology category. Right up front is Tubex Aluminium Rise & Shine can, nicknamed the shiny “Glam-Can”. For the first time, a metallisation layer is applied to an aluminium can. This new decoration technique is a joint innovation of Tubex Germany and Brazil. The Glam-Can is suitable for aerosol content as well as foundation, perfumes, and lotions.

The second Tubex award was granted to Unilever Dove Men & Care aerosol can. Due to the use of a patented alloy (Neucan 3.1) the can is nearly 20 per cent lighter than the previous standard can. The alloy allows the integration of 25 per cent or higher levels of PCR content, depending on the composition and quality of the PCR material. This important weight reduction was achieved by slightly changing the shape of the shoulder but also reducing the wall thickness. But the reduction of wall thickness makes the cans more sensitive to denting during packing and transport. To minimise the risk of dents Tubex invested considerably in a new packaging technology, named “layer wide packaging”.


Leo Werdich, managing director, explained:

“The cans are transported on pallets, rather than packed in bundles. The advantage of this packing is that fifteen per cent more cans fit onto the pallet and fifteen per cent more pallets fit onto a truck. This also means fifteen per cent less warehouse space/pallets are needed.”

Among the personal care category, Toyo Aerosol Industry was also granted an award for its Kao Cape Hair Spray, developed with Toyo Seikoan and Daiwa Can. This Hair spray has a new push button that works as a lever to reduce the force needed to deliver the product by 40 per cent. The can itself has a recess for easy hold optimised for the specific spray button.

Toyo Spaoxy Dualgel is using what it claims is the first dual-product aerosol. This face pack from Japanese brand Dr Medion combines sodium bicarbonate gel and citric acid gel, which together create carbon dioxide intended to improve blood flow and activate the metabolism of skins cells. The Dual aluminium can by Toyo features two aluminium pouches surrounded by nitrogen gas. It also possesses two individual stems to deliver each formula separately.

Lindal Group joined efforts with Nussbaum and Elysée Cosmétiques for the O’Lyssée aerosol. The Enhanced Mist Technology was insert for the launch of this Brume d’Eau Pure product. The patent-pending technology aims to improve issues with traditional aerosol actuators, notably a change in spray performance trough pack life. The product also uses a BPA non-intent aluminium can.

Direct printer on tube Hinterkopf was presenting the third generation of its equipment, with extended flexibility and an impressive quality of print. 



Crown round innovation shelf



Infinity Aluminium Bottle from Ball

# Setting the tone for the future of the beverage industry

With shifts in attitude towards the way we package products, an increasing need for creative and customisable solutions and pressure to react quickly to market trends and demands, the beverage industry is experiencing significant changes.

*CanTech* speaks with Tonejet CEO, Rob Day, to find out more



Rob Day

## Can you tell us a bit about the Tonejet journey to date?

Tonejet began as a technology project within TTP Group, one of Europe's leading technology and product development companies, before becoming a wholly owned independent subsidiary some years ago. Working out of our production facility, we now manufacture the Cyclone almost entirely in-house. We produce printheads in our own clean rooms, carry out system assembly, full testing and commissioning all on-site. We

consider the business very self-sufficient and vertically integrated, ensuring tighter quality control and a better flow and management of information across the supply chain, which is vital in such a specialised field.

Now, everything is UK-based, but at least half of the demand for our products is coming from the US.

## Since the company was established, what's changed in the beverage packaging sector? How would you describe the industry today?

The commercial reality of the industry in 2020 is large manufacturers using technology, and not least digital printing technology, to convert a small number of base products into myriad variants in response to customer orders and fulfilling those orders within hours or days. You cannot do that if your product packaging has to be produced using printing plates and labels.

Of course, the same technology that enables global brands to do this can be used by start-ups who rarely manufacture anything in runs longer than a few tens of thousands. Craft beer is a perfect example. In the US, overall beer sales are flat, but the \$27bn craft beer market is seeing growth closer to 10 per cent; that's around 7,000 breweries all wanting to make seasonal specials and short runs for sports or cultural events in addition to their core products, which are themselves niche and low volume.

And it's not just beer; new beverage categories like hard seltzers are seeing 200 per cent growth, as a younger demographic looks for low alcohol,





relatively healthy drinks, which are sugar-free. With plastic packaging being demonised because of its environmental impact, water is increasingly being packaged in 100 per cent recyclable, lightweight aluminium cans too. Wine and coffee are also growing categories.

### So how does the Cyclone compare with traditional technologies and meet the challenges of this changing market?

Brands who want to buy printed cans from can makers have a number of issues to deal with including large volumes. This tends to be a major stumbling block for smaller craft brewers, who will need to work through (and pay) an intermediary distributor. Additionally, traditional can printing requires the production of printing plates which cost thousands of pounds and take months to procure, leading to a minimum order volume of around 100,000 units. This leaves larger brands suffering from a lack of agility and procurement delays while smaller, independent brands would struggle to even get started. This is where Tonejet fits – our customers are specialists providing services to smaller breweries and larger brands wanting to run promotional specials, create limited edition beverages or use unique barcodes for track and trace.

### What level of market opportunity do you believe this technology represents to the market/customers?

It's an enormous opportunity. The Cyclone cuts short-run packaging costs when compared to labels or sleeves by around two thirds. The real value of digital, however, is in the new functionality and supply chain dynamic it enables. Mass-customised products are in their infancy but have been so successful that they will become the norm once supply chains are remodelled to fit this new way of doing things. Sales increase and premium pricing is achievable when packaging is targeted at specific consumer niches who will really identify with the product. Then there is the brand activation that is possible through web or social media-driven promotional messaging, perhaps triggered by a unique VR or other code on a pack. The list goes on – we are just entering the age of mass-customised product.

### Do you feel that the opportunities and advantages delivered by the Tonejet Cyclone are fully recognised by designers and brand owners?

Designers and brand owners are only just getting a feel for all the possibilities that targeted digital packaging can bring with it. Big brand campaigns



like 'Share A Coke', which created a seven per cent increase in sales, are leading the way and flying the flag for digital. It takes a while for the industry to understand and appreciate that with digital, every single can could be produced with a different image, creating virtually limitless design possibilities.

Every brand owner we've met is excited by this prospect and the additional benefits the Tonejet Cyclone offers, and we cannot wait to get more systems on the market to serve them.

### How much will environmental responsibility drive adoption of a digitally printed can versus a bottle? What's the story?

When it comes to bottles the facts are stark with less than 10 per cent of plastic bottles being recycled compared to 50 per cent when we look at aluminium cans – a figure set to increase as domestic recycling becomes more efficient. Cans are 100 per cent recyclable so are more environmentally friendly – in fact, most new beverage cans today are made from recycled aluminium. Cans also stack up well against the heavy and fragile glass bottle, eliminating the need for any secondary packaging materials.

The demand for beverage cans, which has been growing steadily at around three per cent per annum in the last five years, will increase further as brands switch from both plastic and glass to aluminium.

### Is the Tonejet Cyclone commercially available? Can I order one today and how much does it cost?

Beta testing is underway with a customer in Canada. We have plans for a second beta to be live at our base in Cambridge in the UK later this year, handling short run can decoration for a large global beverage brand, as well as several smaller local craft brewers. [C](#)



# Still the gold standard for CAN SEAMERS

Evert van de Weg examines the latest from seaming specialists,  
Angelus

If you visit production lines in a can making plant or a filling line for cans in a food plant, beverage plant, or brewery anywhere in the world, there is a good chance that you will see an Angelus can seamer doing its job. Since being founded in 1910, the company has sold more than 16,000 seamers in 132 countries.

The introduction of reliable closing machines with their typical two-stage operation in a curling process, referred to as the first and the second seaming operation, was a real breakthrough after the slow and not very reliable closing method of soldering.

In the second half of the 19th century, the number of filled food cans quickly increased in the US, and the number of processing plants grew from less than 100 in 1870 to nearly 1,800 at the turn of the century.

## RAPID GROWTH OF ANGELUS

In the wake of the exploding market for food and beverage cans in the US and, later, in Europe and other parts of the world, Angelus grew accordingly. This has certainly also had to do with the solid reputation for quality Angelus earned for its seamers, and Angelus became a global organisation.

Patrick Dheere, managing director, saw the development of the can market and the development of Angelus from within. He takes up the story: “Here in Belgium, we took part in the development of the can market, in particular the beverage can market. The acquisition of Angelus by Pneumatic Scale Corporation in 2007 had a large impact on us.

“Forging ahead as Pneumatic Scale Angelus, we became part of the Barry Wehmiller family of companies, and ultimately part of BW Packaging, which is able to provide a broad range of packaging solutions across a wide range of industries.

“It is important to point out, that years before, in 1995, Barry-Wehmiller purchased Figgie Packaging Systems, which included a line of can seamers called Closetech, formerly owned by Continental Can Company, with its tremendous and decades-long double-seaming experience, so our experience in this technology is second to none.”

The Angelus location in Deurne is a sales and services office, like most of the other Angelus locations across the globe. These offices sell spare parts for seamers in the field in addition to new machines, and they supply



service in the broadest sense of the word. The manufacturing locations for the Angelus seamers are in Stow and Cuyahoga Falls in Ohio, US, and also in Parma, Italy since 2017.

According to Dheere: “For many decades, we have been producing a wide range of traditional seamers, all very reliable and performing up to very high speeds. We now call these seamers our Legacy Series Can Seamers, but they are still quite relevant in today’s market, also because they have often been refurbished.

“It’s important to point out that we’re able to supply all spare parts if necessary, even if the seamers date back to the 1960s or even before.”

### DEVELOPMENT OF THE ANGELUS V-SERIES SEAMER PRODUCT LINE

In view of various developments in the can market, in 2015 Angelus started to design a new generation of seamers: the V-Series seamers.

“We really wanted to take the changing demands, also from the brand owners side, into account,” Dheere says. “We stuck to the robustness and stability of our seamers, but we now use 304 stainless steel in all product contact areas, so that the sanitary design seamer is now fully foam and chemical-cleaning compatible. Moreover, the V-series seamer contains 25 per cent fewer components and we wanted the new seamer to match seamlessly with today’s modern fillers.

“The new V-series seamer can be used for atmospheric, under cover gassing, steam vacuum and liquid Nitrogen dosing applications. We tested the new V-seamers heavily under severe conditions and started supplying them shortly thereafter.”

Some Angelus V-Series seamers are laid out specifically for food cans, some specifically for beverage cans, but most importantly, can handle both food and beverage cans. Depending on the model, the V-Series seamers have speeds from 10 cans per minute up to 2,500 cans per minute.

Angelus works closely with all the various suppliers of filling and packaging equipment like KHS, Sidel, Kronos and others. The range of products to be packed and sealed with Angelus seamers is very broad.

“Our seamers are being used for wet foods, including pet foods, but also for dry foods like milk powder, infant formula and snack foods. Beverages are also an ever-growing market for our seamers,” Dheere notes. “If customers prefer a turn-key solution, we are accustomed to working together with many different partners; we are really open to working with anyone who provides a complementary capability or solution to our own.”

### CRAFT BREWERIES, A NEW GAP IN THE MARKET

Craft beer is getting very popular in all parts of the world. In the US, there are now more than 7,500 craft breweries, varying considerably in size from the microbrewery up to the regional breweries.

However, in the US and elsewhere, craft brewers often start filling their beer into glass bottles, and then shift to cans later on because of the superior protection against light and oxygen and the efficiency in logistics because of the weight of cans, the

stackability, and the unique sustainability of cans. However, the shift from glass bottles to cans is not a very easy one for brewers who do not have much expertise about canning beer and who want to keep supplying a high quality product.

According to Dheere: “Making a good seam on a beer can is much more difficult than closing a crown cork on a bottle. You just pull down the crown cork on the bottle finish and there you are, but making the correct seam is much more critical.

“This growing demand gave way to a new category of small seamer manufacturers that focused on low cost rather than quality. The fact that these newcomers to seamer manufacturing didn’t really understand the complexities of double seaming and what a seamer must be capable of performing compounded confusion in the marketplace.”

Angelus decided to design suitable seamers for this new market segment, with the same stability and reliability as the big seamers of the Legacy or V-series seamers.

“We took our 100 plus years of experience and the same robust technology of our high speed machines and scaled them for this craft market, introducing two new models of fillers/seamers – the CB50 and the CB100, with maximum speeds of 50cpm and 100cpm respectively.

“I can assure you many craft brewers are already quite happy with these new introductions. We have already sold more than 100 of these machines in the US and have begun penetrating the European market as well. It shows again that we, as a company, are up to new challenges.”





A vibrant nighttime cityscape featuring a prominent skyscraper with a unique, curved top, illuminated in blue. The sky is filled with numerous large, colorful fireworks in shades of orange, yellow, green, and red. The city lights and fireworks are reflected in the water in the foreground.

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A vibrant nighttime cityscape of Ho Chi Minh City, Vietnam, featuring illuminated skyscrapers and a large display of colorful fireworks in the dark sky. The scene is reflected in the water in the foreground.

# Asia CanTech 2020

**9 -11 November**  
**Ho Chi Minh City, Vietnam**



# Five things you need to know about sheet misalignment

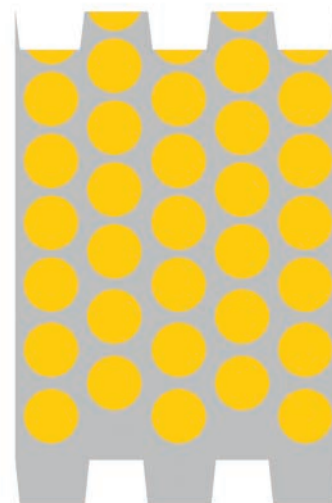
Innosen's Niña Muñoz outlines the five most frequently asked questions about sheet misalignment



Skewed



Translated



Off-registered

Sheet coating/lacquering is one of the most important processes in can making. A lot of horrific defects can happen to your cans if lacquer or coating is applied on the wrong place. Some of the problems include poor quality welds, corrosion (due to missing lacquer) and weld wire breakage, which is why proper sheet positioning should always be observed.



In order to ensure that sheets entering the coater are in their right placement, it should be clear as to why sheets misalign and what the possible effects are if it goes undetected. We have listed five of the most frequently asked questions about sheet misalignment to help you eliminate coating problems now:

## 1. WHY DO SHEETS MISALIGN?

Sheet misalignment occurs due to a wide range of reasons. Basically, when you run sheets through high-speed moving lines, there is a huge possibility that the sheet's position will change at one point, causing problems further along the way. Usually, misaligned sheets result in problems in the coating process.

No matter how you control the process, one in every 2000 sheets will skew or misalign badly as it goes through the rollers.

## 2. WHAT ARE THE KINDS OF SHEET MISALIGNMENT THAT CAN HAPPEN? AND WHERE DOES IT OCCUR?

There are several kinds of misalignment of sheets that could happen during the production process. The most common would be what we call 'skewing' or slight rotation of the sheets. This happens in the rollers as sheets go through the roll. On the other hand, 'translation' occurs in the coater. This happens when sheets miss the side



guides when entering the rollers and drift sideways.

### 3. WHAT ARE THE PROBLEMS CAUSED BY SHEET MISALIGNMENT?

Misaligned sheets usually cause problems in the coating process. It causes poor coating placement that leads to weld wire breakage, damage to weld rollers or poor quality welds. This further results in spoilage, downtime and customer complaints due to poor quality products.

### 4. WHAT CAN I DO TO PREVENT SHEETS FROM MISALIGNING?

You will need a device or system that allows you to monitor the accuracy of the alignment of your sheets as they go through the rollers.

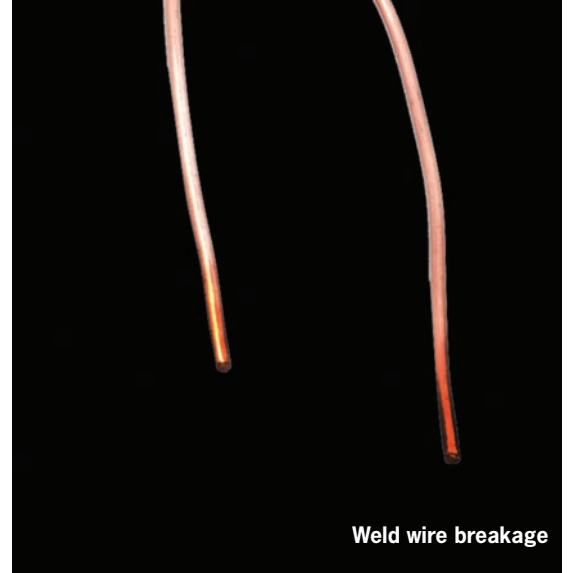
The Skew Measurement System is a system from Innosen that detects skewed or rotated sheets, giving immediate feedback as the sheets go through the coater.

### 5. HOW CAN I APPLY MAXIMUM PROCESS CONTROL?

For a complete system for improving coating process,



Spoilage



Weld wire breakage

get the Sheet Translation Measurement which works with the Skew Measurement System, detecting not only skewed sheets but even 'translated' sheets. Get the Sheet Registration Measurement add-on to protect against poor sheet registration by detecting sheet misfeeds at the coater. [ct](#)

**Author:**  
Niña Muñoz, marketing executive for Innosen



# imeta

Strada Burla 279/A - 43122 Parma - Italy  
ph. +39 0521 1688811 - fax +39 0521 1688819  
www.imetasrl.com - e.mail info@imeta.it

## THE SCIENCE OF SEAMING

Imeta Srl has been designing and producing chucks & rolls, up-grading kits and spare parts for seamers since 1963. The company has an operating structure that brings together the passion for detail, typical and emblematic of artisan culture, and the technological element of an industrial concern.

The production range includes:

- Seaming chucks and rolls made from a wide range of base materials and coatings;
- Change Parts and Spare Parts for any can seamer;
- Special Cover Feeders for Easy Open ends, Rings, aerosol Tops and Bottoms;
- Can-making tools: Curling Disks & Sectors, Beading Sectors and Rollers, spin-flangers, dies for Open Top ends;
- Overhauling and sales of second-hand seamers and can-making machines;
- Seamer upgrading kits: Gear Driven Lower Lifter Kit, Inverter Drive, Lid Gapper, Central Lube, CE marked safety enclosures, and much more.





# Maintaining a healthy UV curing system

Miltec UV's Bob Malone and John Phillips advise on the five main ingredients that make up a healthy UV system

## COOLING AND AIRFLOW

More advanced UV lamp systems require a cooling system that not only maintains the lamp stability in that range, but also protects the integrity of the metal structure.

The most common method to cool a UV lamp is with air flowing through its housing and across the UV bulb and reflector. However, there are several things that are important to consider.

UV lamps do have a 'cooling window' when it comes to proper air cooling. To make it a bit more complicated, the required amount of air cooling that is to be delivered past the UV bulb will depend on the power level you operate the UV lamp. Most modern UV lamp systems are powered by variable power ballasts, which can deliver a power range from 20 per cent to 100 per cent power to the lamp.

Such a wide power adjustment range will allow the lamp to be changed from about 130 Watts/inch up to about 650 Watts/inch. For some UV systems, the power setting is adjusted by the front panel controls, but for other more sophisticated UV systems, the lamp power is automatically adjusted as a function of line speed via a 0-10 VDC or 4-20 milli-amp signal provided by the customer.

Conversely, as the lamp power is reduced, the cooling air must be reduced to ensure the lamp is not over-cooled.

Consequently, to avoid lamp cooling problems, it is essential that the cooling system must adjust automatically to match the lamp power and heat load to maintain stability of the lamp and ensure that it operates within its proper temperature range. Lamps that operate in an "over-heated" condition will result in shortened lamp life and possible lamp swelling or warping, which adversely affects the UV output.

Lamps that operate in an "over-cooled" condition will suffer from shortened lamp life and low UV output as well. When a lamp is over-cooling, it cannot develop the correct voltage and the current (amps) remain high, putting adverse wear on the electrodes over time. In most cases when the lamp is over-cooled, the mercury plasma will begin to become unstable and the lamp will inadvertently extinguish.

Only when a lamp is operating within the correct cooling parameters consistently will maximum lifespan of the UV bulb be realised, as well as consistent UV output from the UV bulb be achieved.

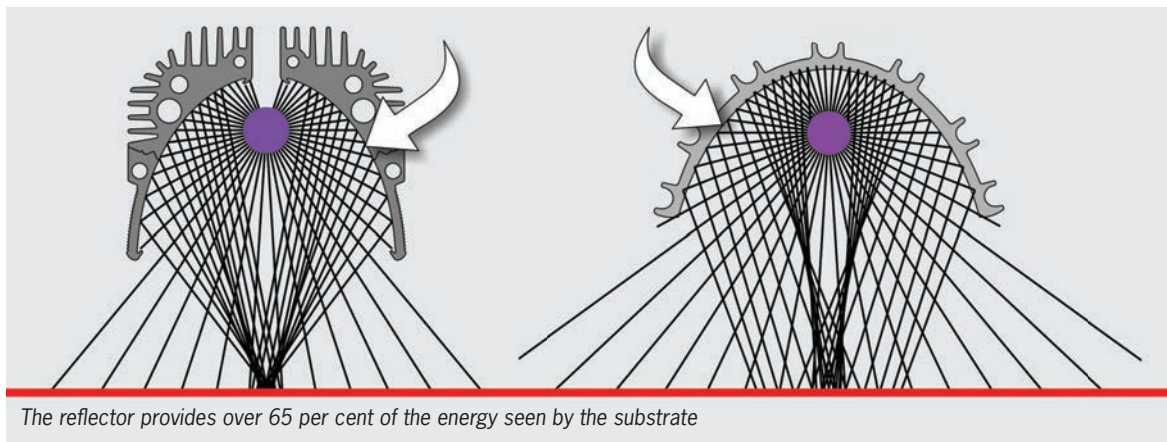
## REFLECTOR CONDITION

The Lamp reflectors are an important part of the UV lamp system because they are typically responsible for reflecting about 65 per cent of the UV energy emitted from the UV bulb to the customer's product. When the reflectors are not cooled properly, they can warp and



Overheated Lamp





The reflector provides over 65 per cent of the energy seen by the substrate

wrinkle as a result of thermal expansion. The photo above shows what an overheated reflector looks like. Reflectors that lose their nice curved shape will cause the light ray pattern that reflects from the reflector toward the customer's product to become scattered or diffused, which will negatively impact its ability to cure. The graphic above shows two conventional light ray patterns that are used in most UV curing systems. Therefore, it is essential that the curved shape of the reflector does not change during lamp operation in order to maintain these UV light ray patterns.

The curved shape of the reflectors are typically designed to concentrate (or focus) the light rays to a very small area creating extremely high UV peak irradiance at the customer's product, which is one of the keys to UV curing.

Routine maintenance to the reflector is also extremely important. When the reflectors become dirty, contaminated, or dulled over a period of usage, the % reflectivity will reduce significantly, which will reduce the UV energy and intensity that is delivered to the customer's product. Poor reflector conditions will result in customers producing un-cured product. The reflector is considered a consumable part for all UV systems, and is considered a component that requires attention and maintenance (or periodic cleaning) to help ensure good consistent UV

output from the UV lamp system. Some UV systems use replaceable reflector liners, which are normally a thin polished aluminium material with a protective coating (which looks much like a conventional mirror finish) and typically pre-curved and cut to fit into a reflector holder inside the lamp housing.

Other more sophisticated UV lamps use "cold mirror" reflectors, which are also thin, pre-curved and cut aluminium or glass reflectors that are held in a holder of some type inside the lamp housing. Cold mirror reflectors have special coatings applied to the reflective side of the reflector substrate that are designed to efficiently reflect UV light but absorb the IR energy (heat) emitted by a UV bulb. Cold mirror reflectors will reduce the heat load on the customer's product as it travels under the UV lamps.

Other less sophisticated UV systems use a polished aluminium extrusion as the reflector, which is curved around the UV bulb and acts as a reflector and a lamp shutter. Regardless of the reflector type, it is important that the reflector condition is maintained to be a clean with a shiny appearance.

If the reflector begins to look dull or dirty, that's an indication that it needs to be either cleaned or replaced. Reflectors can be cleaned using a lint free cloth and isopropyl alcohol or a surface cleaner that does not leave



a film. Cleaners that contain ammonia are not recommended.

If after cleaning, the reflector still appears to be dull or dirty, then it should be replaced.

Measuring your UV output will also help diagnose a poor performing reflector. The best device that is available to measure UV output is a “puck” style radiometer that measures UV light energy in all 4 UV ranges: UVA, UVB, UVC, and UVV. The puck style radiometer is placed on the conveyor belt and run under the UV lamp at some pre-defined constant speed, and it will measure the total UV energy delivered by the lamp. When the UV energy reduces to a point where you are in danger of not achieving proper cure, then it is most likely time to clean and/or replace the lamp reflector.

### LAMP MAINTENANCE

Most UV lamps operate in industrial environments, which are typically less than ideal conditions. It is important to try to keep the lamp as clean as possible to help ensure consistent UV output and prolong its useful life. Neglected lamps will age and fail prematurely, as well as suffer from low UV output. The simplest way to keep your UV bulbs clean is by cleaning them with a designated UV glass bulb cleaner and a lint free cloth. Some UV bulbs need to be cleaned often and some less often.

The frequency of needing to clean the UV bulbs will vary depending on the environment in which they are operating. Dirty and contaminated UV bulbs that operate for prolonged periods of time are more prone to overheating, and then swelling or warping. If a UV bulb swells or warps, this will negatively impact the UV peak irradiance output of the lamp and curing performance of the UV lamp system.

Once a UV bulb appears swollen or warped, this is a sign that the UV bulb should be replaced. If air filters are used to help keep the lamp cooling air clean (which

is common for microwave powered UV lamp systems), then it is important to change these filters on a periodic basis to help ensure the lamp cooling air delivered into the lamp housing and passed the UV bulb (& reflector) is clean.

Maintaining clean air filters will also help ensure that the volume of air delivered to the lamp is maintained within the required specification. Operating a UV lamp system with dirty & clogged air filters will almost always result in over-heated UV bulbs and a significant reduction in UV bulb life, and this will cause you to change UV bulbs much more frequently.

### POWER SUPPLY MAINTENANCE IS IMPORTANT TOO

The heart of any UV system is the expensive power supply which drives the UV lamp. Whether a conventional iron core ballast or a solid-state power unit is used, the proper volume of filtered cooling airflow delivered to the ballast is critical to the health and life expectancy of any ballast and other electrical components inside the ballast enclosure. Power supplies operating in a dirty or over-heated environment will deteriorate or fail prematurely, resulting in low UV output or lost production.

Making sure you maintain a clean air filter and the proper amount of air flow to the ballast will ensure your ballasts are properly cooled and kept clean. Air filters should be replaced as often as needed, depending on the environment.

In the event the ballast and other internal power supply components (such as capacitors) become coated with dirt or dust, you should:

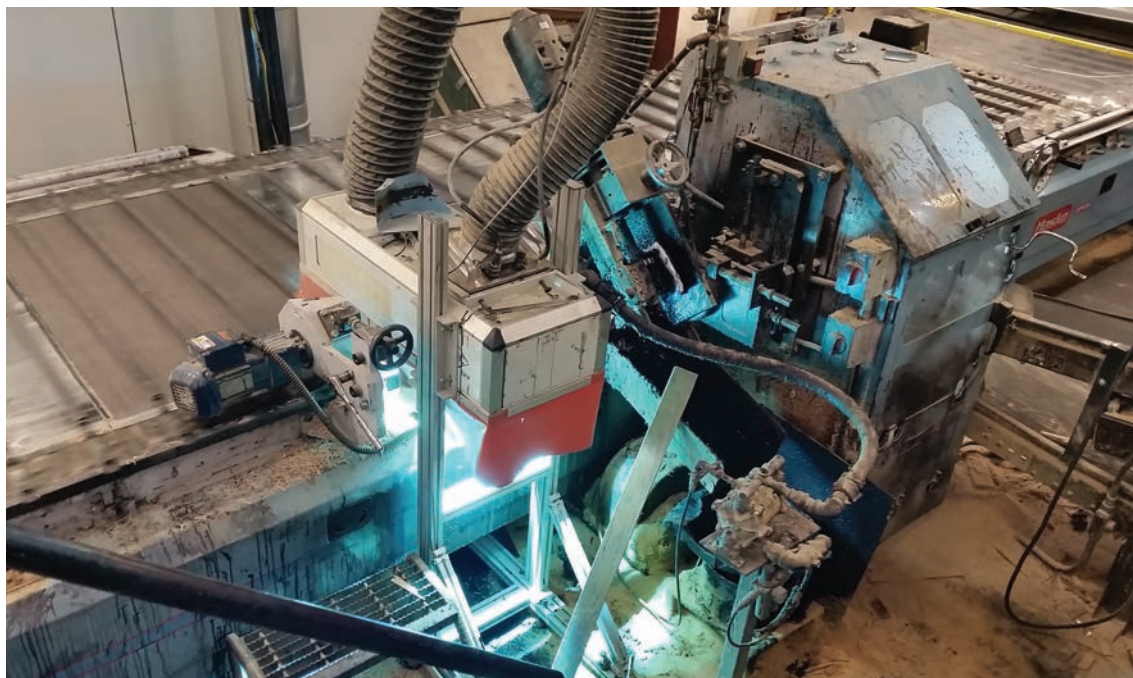
1. Check the air filter and replace it if needed.
2. Blow out the ballast and all other internal components with clean dry compressed air, and then vacuum out the settled dust.



*Dirty, overheated power supplies*



Poor Light Shielding



## LIGHT SHIELDING

Good light shielding in and around the UV lamp housing will protect the lamp module components and the production machine to which it mounts. A properly designed light shield will prevent any machine hardware near the UV lamp from reaching unsafe temperatures or deterioration from direct UV exposure.

The secondary function of the light shield is to support the UV lamp housing in a manner in which it will efficiently cure the customer's product. If the light shielding gets removed from the machine for maintenance to the production equipment, it is critical to install the light shielding in the same position and location on the machine to ensure the lamp is positioned in the correct location and orientation with respect to the customer's product that is being cured.

The third function of the light shield is its contribution toward good air cooling. Some light shields may have air intake vents or air louvers to allow for air to enter the inside the light shield for lamp cooling, substrate cooling, and/or light shield cooling.

If the air intake vents become clogged with dust or dirt, this can cause an increase in temperature of the UV lamp, light shield, and the customer's substrate. The result can be poor lamp performance, short bulb life, or overheating the customer's substrate. Therefore, part of the routine preventive maintenance schedule should be to periodically clean out these air intake vents (or louvers).

## ABOUT

Miltec UV of Stevensville Maryland, a family operated business specialising in UV curing systems, is celebrating 30 years in business in 2020.

The company has changed dramatically over the years from being a distributor of industrial UV (ultra-


violet) curing systems to becoming a global equipment manufacturer.

The company manufactures UV curing equipment and spare parts to over 30 markets globally. The company is unique in that its combined portfolio consists of microwave, arc, and led lamp technologies which allow better choices for its customers.

Over the past 30 years, Miltec UV has developed comprehensive capabilities and a staff of technical experts that provide consulting, training, and technical support. In addition, we have an impressive customer applications laboratory open to customers and formulators to work alongside our PhD chemists, engineers, and UV experts towards new breakthroughs in testing new processes, cost reduction, and process improvements.

By products that are made by manufacturers using the UV curing equipment vary from medical equipment, prefinished hardwood floors, LVT flooring, kitchen cabinets, automotive headlights, cell phones screens, printed metal aerosol cans, printed products, fertiliser and dog food bags, and optical fiber used for telecommunication cables as well as many others. The company recently worked with the department of Energy and Department of Defence to develop a manufacturing process, utilising UV curing technology for lithium-ion batteries.

This UV technology will be used in vehicles and multiple other applications such as power tools, cell phones and other applications that use lithium-ion batteries. This process is a revolutionary advancement in the production of lithium-ion batteries.

Miltec UV is involved in supporting the community through various organizations and the four principal owners are as well through various volunteer roles. The owners include Marilyn Blandford, CEO, Bob Blandford, president, Joe Blandford, vice president, and Charles Blandford executive vice president. 



# TINPLATE – the perfect material for multi-recycling

Nicole Korb, communications and market development manager at Thyssenkrupp, examines the growing importance of tinplate as a packaging material in the multi-recycling age in which we now live

**H**ave you ever thought about how often you come into contact with an object made of steel during the day? You probably can't count how many times this has happened today on one hand, because products made of steel are an integral part of our everyday lives. These products are used in almost all areas of our lives, whether in the bathroom, at breakfast, on the way to work or while eating.

Cutlery, door handles, bicycles, cars and food and beverage cans exemplify products comprising steel.

As crude steel always contains a certain amount of scrap steel, each of these items is likely to contain steel that has already been recycled multiple times.

Tinplate, also known as packaging steel, is a permanent material in a closed cycle. It is virtually 100 per cent recyclable – practically infinitely often and without downcycling, ie with no decrease in quality, as its inherent properties are retained. As a result, tinplate is the perfect material for multi-recycling. In practice, this means that material that has already been recycled can be utilised in a subsequent step.



Due to its magnetic properties, packaging steel is the easiest packaging material to collect and recycle. Dr. Peter Biele, CEO of Thyssenkrupp Rasselstein, Germany's only tinplate manufacturer, explains: "With a view to sustainability, packaging steel has great potential for the future as the most recycled packaging material. For more than 10 years, packaging steel in Germany has been consistently outperforming the recycling quotas required by the new German Packaging Act (VerpackG).

"With a current recycling rate of 91 per cent in Germany and 80.5 per cent in Europe, tinplate is the leader among all packaging materials. In Germany alone, so much tinplate was recycled in 2017 that the steel produced from it could be used to build 27 Eiffel Towers."

Multi-recycling has two key advantages – conservation of resources and improvement of the environmental footprint thanks to many successive cycles of use and recycling. An example, after seven recycling cycles, 4.6 tons of steel products were produced from just one original ton of steel. By using steel and tinplate scrap in crude steel production, substantial reductions in CO<sub>2</sub> emissions are also achieved.

Even though packaging steel is already sustainable due to its virtual 100 per cent recyclability, the parent company, thyssenkrupp Steel Europe, which produces the precursor hot-rolled strip for the production of packaging steel, is working on a major step: a future with virtually climate-neutral steel production. For packaging steel, this means that in the future it will also be possible to process climate-neutral steel into tinplate in Andernach. What exactly does thyssenkrupp's climate initiative look like? For one, in the future, thyssenkrupp Steel will be using hydrogen instead of carbon as a reducing agent in the blast furnace process. This releases water vapour instead of CO<sub>2</sub>. At the same time, the company is converting existing greenhouse gases into valuable chemical products such as methanol and ammonia. The goal is to make steel production CO<sub>2</sub>-neutral by 2050.

The issue of sustainability is increasingly becoming the focus of consumer attention and is why it plays an important role in purchasing decisions. The sustainability of packaging is already a priority for 85 per cent of consumers – with an upward trend. With the purchasing decisions they make at the supermarket, consumers can exert a great deal of influence on which packaging will be commercially available in the future and whether it will be sustainable. But by returning cans in an organised take-back system, consumers also affect the functioning of the material cycle. Proper waste sorting at home is the key. In the EU, the recycling rate is currently at 80.5 per cent.

"All stakeholders, ranging from manufacturers to retailers and dual systems to the recycling industry,


need to educate the public much better in order to put even more cans into separated collection systems and to reduce the number of recyclable materials that are thrown in the wrong container," says Andreas Knein, managing director of DWR - Deutsche Gesellschaft für Weißblechrecycling, a subsidiary of thyssenkrupp Rasselstein. "After all, recycling can't get any easier than with the magnetic and practically 100 per cent recyclable packaging material tinplate."

The topic of food waste is also more relevant than ever before. Tinplate cans ensure that food can be kept for a very long time without refrigeration, since it is protected from light and air in the can. This means that food waste is not an issue when it comes to steel packaging. The decision in favour of each can also has an enormous positive influence on how much avoidable CO<sub>2</sub> is produced at this level.

With a current recycling rate of 91 per cent in Germany and 80.5 per cent in Europe, tinplate is the leader among all packaging materials



As a result, consumers, manufacturers and retailers in the packaging sector can contribute to protecting the environment and lowering CO<sub>2</sub> emissions by choosing a packaging material that is synonymous with a closed material cycle, multi-recycling and safe protection of its contents. Each recycled can helps to conserve scarce primary resources and lower CO<sub>2</sub> emissions.

Finally, Thyssenkrupp Rasselstein actively contributes to closing the material cycle by ensuring the recycling of packaging steel in Germany through its own recycling systems, DWR - Deutsche Gesellschaft für Weißblechrecycling for the private sector and Kreislaufsystem Blechverpackungen Stahl for the commercial/industrial sector. 

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## Koenig & Bauer to introduce new colour controller at Metpack

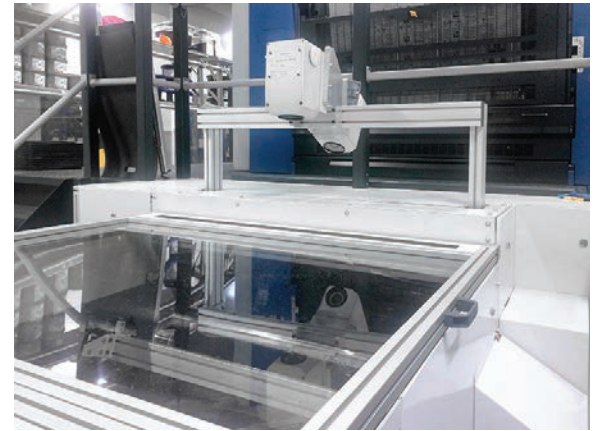
Koenig & Bauer will present its new colour controller, MetalControl, at Metpack in May 2020.

MetalControl reduces colour setup times down to a minimum with 100% measurement and ensures guaranteed colour consistency during the whole production run through its analysis of every sheet.

MetalControl is integrated into the MetalStar 3 and the high resolution camera scans every sheet and measures the ink density within the print control strip. This information is continually evaluated and corrects the ink keys automatically. The colour controller responds to any out of tolerance reading to maintain the standard set for each colour. For example, certain special ink mixes are known

to have slower reaction to change and MetalControl will automatically compensate for this. The benefit is a 100% closed loop colour control, which guarantees highest colour stability and consistency independent from the operator.

The conventional set up of a press can take up to 45 minutes or longer to reach the target density but with MetalControl it just needs one pull using a sandwich setup which is a prepared mix between waste and good sheets. Based on the camera image, the software will automatically distinguish between good and bad sheets and measures (inline) only the colour on the good



sheets. This feature allows MetalControl to achieve target densities for a new job in less than five minutes, with minimal waste.

## NEW PRODUCTS AT METPACK FROM STOLLE

Stolle is excited to offer new product innovations at Metpack 2020. Advances in can forming, decorating, end making, automated controls and more will be on display.

First introduced at the last Metpack in 2017, the Stolle Inkjector is evolving into a complete closed-loop decorator quality control system. The main components of this system will be on display, including a simulated high speed 360-degree vision inspection camera and cylinder registration station. Print quality feedback from the camera allows the Inkjector to control both the plate cylinder registration and inker fountain keys in real time to maintain print quality while the decorator is in production.

Also on display will be a new bottom reformer module for the Stolle E-NCKR. This is Stolle's premier die necking, flanging and inspection system that was first introduced at Cannex 2018 in China.



Another new system is the new Stolle E06 six-out easy-open end conversion system that features a new 140-ton press. Video and photos of the machine in operation, as well as a set of tab and lane dies, will be on display.

Additionally, Stolle will have updates on its new Canceptor bodymaker, as well as a redesigned and upgraded redraw system for the Stolle Ragsdale Bodymaker. There will also be a demonstration of Stolle's inSight plant-wide automation and intelligent control

software, as well as new information on Stolle Global Systems that will feature their successes in designing and building can and end lines, as well as complete plants, around the world.

Toyo Seikan will also have a presence in the Stolle booth as well, providing information and demonstrations on new technologies, itsTULC production line, as well as revolutionary new bodymaker D&I tooling, which only requires changing once a year.

## Solucan showcase digital printing solutions

Solucan, provider of digital print solutions for the canned beverage industry, has opened its state-of-the-art, purpose-built facility in Trois-Rivières, Canada to demonstrate the capabilities of its Tonejet Cyclone direct-to-pack digital beverage can printer.

On 14 February 2020, Solucan hosted an official press conference for guests including local media and even provincial and federal representatives including Jean Boulet, minister of Labour, Employment and Social solidarity; Anthony Housefather, parliamentary secretary to the minister of Labour and Jean Lamarche, mayor of Trois-Rivières, to announce a revolution in beverage can production. Solucan displayed successful implementation of its Tonejet Cyclone to guests, demonstrating its new business model to offer an alternative to shrink sleeved cans and pressure sensitive labels, a complete digital printing solution with flexible quantities at a lower cost per can.

Since installation in December last year, the



Cyclone has produced hundreds of thousands of cans in batches ranging from 48 cans up to 165,000, showcasing the versatility of its end-to-end system. The cans produced on the Tonejet system are environmentally friendly, being 100% recyclable, and address governmental pressures in Canada for an improvement in packaging sustainability. With the Cyclone, Solucan is providing local beverage providers with a solution which anticipates changes to the regulations around packaging. Food quality inks further minimise the environmental impact of these digitally produced cans and produce impressive results.

## Technical Sales Engineer

We are looking for a person that has good technical knowledge of forming cans from the aluminum sheet to the exit of the washer.

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The person would travel. Qualifications include applicable two-piece can making experience, good oral and written communication skills and proficiency in English.



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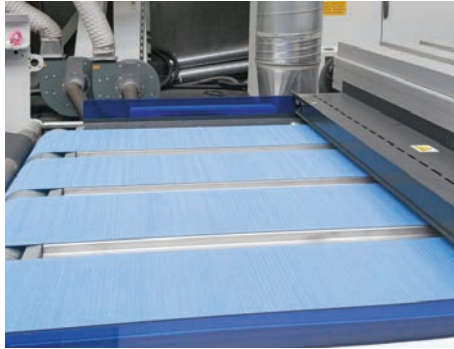
## New feature for Koenig & Bauer MetalPrint's drying systems

Koenig & Bauer MetalPrint has launched a new wide belt conveyor for UV drying systems. The conveyor system is equipped with a new belt technology. The belts are FDA compliant and do not contain silicones or PTFE. The pollution of the machine and the contamination of the printed sheets with dust particles is prevented, as the belts are abrasion-free.

Each belt is pneumatically tensioned by a new designed rocker arm which allows an adjustment of the tension of each belt individually to guarantee a stable transport of the sheet.

The assembly of the belts is done via a plastic thread, which means the belts do not have to be glued which reduces the change time significant and also provides always a good quality of the splice.

By design, the conveyor is equipped with fans which are used to cool the belts in order to extend the lifetimes of them and also to gently generate a vacuum effect for a safe transport of the sheets and with no risk of



slipping.

The belt conveyor is equipped with four wide belts, each 250mm width. Due to the arrangement of the belts, no format adjustments are necessary as the minimum and maximum format of the MetalStar 3 and Mailänder 280 is covered by the outer belts.

The new conveying system can be equipped with UV drying systems from Koenig & Bauer MetalPrint and also with drying systems from other suppliers.

With the modular data exchange system

ModEX by Koenig & Bauer MetalPrint, conventional drying ovens are taking a step towards modern technology. It is the answer for actual market demands for automation, process stability and operator relief.

ModEX is equipped with a recipe management system, which can contain up to 100 recipes for the oven settings for various parameters, eg temperature and fan frequencies for each heating zone or wicket pre-heating settings. The settings for each recipe are made either by oven specialist from Koenig & Bauer MetalPrint or by oven specialists at the customer.

Job information are transferred to the coating line via the customer system, such as an Management Information System (MIS) or Production Planning System (PPS). As the job data such as material, used coating and correspondent recipe are known to the oven, the operator does not have to adjust the oven according to the next job. The oven adjusts itself to the correct setting for the next job being coated.

## Videojet launches new fiber laser marking systems

Videojet Technologies has launched a new 7340 and 7440 fiber laser marking systems, the first to feature Lightfoot, said to be the world's smallest laser marking head.

The 7340 (20-Watt) and 7440 (30-Watt) fiber lasers build on 30 years of Videojet experience in the laser market and have been developed to improve ease-of-use and feature new technologies to ensure ease of integration.

The compact design addresses the needs of manufacturers working within small spaces and are an ideal solution for contract packagers and OEMs in the consumer packaged goods, parts-marking and pharmaceutical industries, which has space limitations, are looking for simple integrations, or do frequent rapid changeovers. The Lightfoot fiber laser marking head is one of a kind. It is the smallest in the industry both in size and weight and designed specifically to meet the strict IP69k requirements, so it is suitable for

use in washdown and harsh environments, without the need for any additional protective equipment.

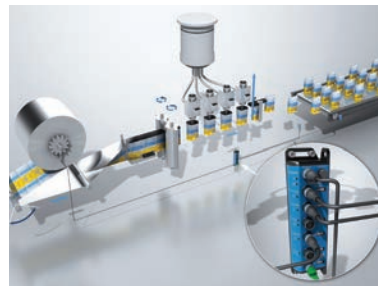


## SICK's SIG200 is an IO-Link Master and control system in one

SICK has unveiled its SIG200 Profinet Sensor Integration Gateway, the first in a family of intelligent Industry 4.0 gateways designed to work as both IO-Link Masters and small, distributed control systems in one. It makes light work of configuring localised sensor applications as part end of line packaging machinery, while unlocking access to process and performance data from the sensors to enterprise-level and cloud-based systems.

SICK's SIG200 Sensor Integration Gateway is an IO-Link Master with an on-board web server that collects, converts and transmits signals from IO-Link devices from any manufacturer. SICK's innovative DualTalk technology means the SIG200 needs only one cable to communicate simultaneously via the fieldbus with the machine controller and with higher-level automation or web-based systems. Data can be integrated transparently into both common PLC environments and higher-level systems.

The SIG200's built-in logic and remote intelligence make it quick and easy to solve simple packaging application tasks, even independently of the PLC. Where



previously, data from I/O sensors at the 'edge' of machine applications has remained inaccessible to higher level systems for example, code read-rates or print alignment trends, sensor signal status or machine performance, deploying IO-Link devices

with the SICK SIG200 unlocks all the Industry 4.0 benefits of simplified installation, application flexibility, diagnostics and securing future-proof technology

David Hannaby, SICK's UK product manager for Presence Detection, explained: "The beauty of the SIG200 is that it offers all the benefits of setting up a system using an IO-Link Master, PLC and sensors. Alternatively, it opens a second route, where you can by-pass the PLC and create your own data gathering system linking straight up to the cloud.

"Engineers will find it easy to configure and visualise an automation solution with the SICK SIG200. The logic editor has a great drag and drop function so you can visualise all the connected sensor and actuator signals and measured values without the need for special software knowledge. It saves a huge amount of programming time, effort and cost."

## New drinks sector opens up in the UK – thanks to the launch of ZAG



The London-based I'm Still Standing Brewing Co is driving interest in the alcohol-free beer alternatives category with ZAG, a drink crafted from a blend of natural ingredients.

ZAG, which has its own distinctive flavour, is aimed at people who like the idea of alcohol-free beer but not the taste. It has classic beer drinking characteristics – a long refreshing drink that's not too sweet and can be drunk in quantity – but it does not attempt

to mimic the taste of beer.

Alcohol-free beer is the fastest-growing drinks sector in Britain; sales rocketed by 28% in the year until February 2019, but many people do not like the taste of beer with the alcohol removed.

ZAG is being merchandised next to alcohol-free beer brands, which is increasingly overcrowded, and it's an alternative for those consumers who want different options.

The vegan-friendly, zesty, carbonated drink is a crafted blend of kombucha, matcha green tea and botanicals, including lemon, lime, mint and cucumber, with no added sugars or artificial sweeteners, and only 54 calories per can.

Jerry Goldberg and Fraser Duncan, co-founders of I'm Still Standing Brewing Co, who both have extensive experience in the drinks and hospitality industries, said: "ZAG is the UK's first alcohol-free beer alternative – it sits in a new drinks category that satisfies

current consumer trends but is not currently served by existing drinks suppliers.

"It is targeted at drinkers who enjoy socialising, but want to cut down their alcohol intake. These consumers are demanding more choice from the alcohol-free sector as they are dissatisfied with alcohol-free beer and reject conventional soft drinks."

The pair added: "We are creating a new drinks category that sits in between alcohol-free beer and conventional soft drinks – and ZAG is the first entrant. Nowadays, one quarter of pub visits don't include alcohol and as a result, there are key opportunities to improve the range of non-alcoholic drinks."

ZAG has two flavour themes – there is a grassy, floral theme from the kombucha, matcha and hemp components that blends with a citrusy theme from the lemon, lime and mint, providing a balanced drink with a subtle sweetness and enhanced with a light carbonation.

## 21st Amendment Brewery and Peet's Coffee announce limited edition 1966 Coffee IPA

The first-time collaboration between two San Francisco Bay beverage purveyors celebrates San Francisco's rich innovation and cultural history.

The 1966 Coffee IPA is handcrafted with Peet's Ethiopian Super Natural Coffee, which is incorporated in several ways, one of them being by 'dry-hopping' with whole coffee beans.

The IPA pours a pale gold with tight white bubbles and has aromas of blueberries and citrus notes from Columbus, Citra, Amarillo and Centennial hops, combined with accents of rich coffee and balanced with malt structure and bitterness. Shaun O'Sullivan, co-founder and brewmaster at 21st Amendment, said: "Rather than the traditional dark beer with coffee, we wanted to have fun with the melding of hops and coffee, paying attention to the coffee varietal and manipulating the roast level to nudge the subtle flavours from the bean for an incredibly unique IPA.

"Working closely with Peet's Roastmaster, Doug Welsh, we settled in on Peet's Ethiopian Super Natural with its lemon, bergamot, and blueberry characteristics perfectly complementing the hop flavours."

"Don't expect dark roast," said Doug Welsh, roastmaster at Peet's Coffee. "We iterated every roast style imaginable, with

a target profile of maltness – matching the beer – a kaleidoscope of floral aromatics and the piquant acidity and glacé citron of exceptional Ethiopia. Hops, meet your coffee cousin."

Part of 21st Amendment's "Insurrection Series", the IPA celebrates the hive of activity in the San Francisco Bay Area in 1966, the heart of the experimental music scene and psychedelic rock poster art, as well as being where Alfred Peet first opened his coffee bar at the corner of Walnut and Vine in Berkeley.

The limited edition IPA is being released

in the US across 28 states (from 1 February 2020) and comes in 12oz cans.



## Minor Figures launches Nitro Chai Latte

The East London-based coffee company, Minor Figures, is launching its first ready to drink non-coffee – a chai latte.

Minor Figures is known as a pioneer of nitro cold brew; the company was first to market with a read to drink, cold brew coffee, combining speciality grade coffee with barista oat milk.

The new chai latte is a nitro infused spiced black tea, slow brewed at Minor Figures' microbrewery and then combined with its signature oat milk. Like all Minor Figures products, the chai latte is plant-based and dairy-free, so suitable



for vegans, and contains no refined sugar.

Co-founder Stuart Forsyth commented on the product launch: "Minor Figures' focus is on quality, innovation and sustainability. As baristas we know that chai can be poor in quality and taste and packed with sugar. Our nitro chai latte is refined sugar free and brewed to our own special recipe, so quality control is in safe hands. The result is an innovative and high quality drink to enjoy on the go."



## Bombay Sapphire has announced the launch of its ready-to-drink Bombay Sapphire & Tonic

Recent studies have shown that last year, 'Ready-to-Drink' became the fastest growing category in the total UK alcohol market, driven by demands from consumers who are living busier and more hectic lifestyles and seek drink options to reflect that.

The new product, which boasts no artificial flavours or colours, combines the brand's iconic vapour-infused London Dry Gin with tonic water, so fans will be able to enjoy a bar-quality taste on-the-go.

Victoria Morris, vice president at Bombay Sapphire, commented: "As a category leader

in premium gin, we are frequently asked at Bombay Sapphire when we plan to enter the ready-to-drink category. So, I am delighted to announce our latest addition to our growing portfolio.

"The development of Bombay Sapphire & Tonic took time for good reason, as we know our consumers expect only the very best from us and we are extremely proud to say that we've created a ready-to-drink befitting to the Bombay Sapphire name in terms of taste, quality, craft and ingredients. We look forward to shaking up the ready-to-drink category with

an option that our fans will love, and that promises to be unrivalled when it comes to taste."

The matte packaging used for Bombay Sapphire & Tonic has been designed to help protect the liquid from sunlight in order to keep the G&T colder and fresher for longer. Additionally, the can is 100% recyclable.



## CANPACK UNVEILS QUADROMIX TECHNOLOGY



Can manufacturer Canpack is employing its Quadromix technology to work with brands across the globe to celebrate their special moments and anniversaries.

Recently, Bavaria beer partnered with Canpack to print three limited edition cans that marked the company's 300th anniversary. Canpack's Quadromix technology enables brands like Bavaria to print, in one production series, up to four different designs.

"Canpack is proud to work with companies around the globe to celebrate their special

moments with unique, limited-edition cans," said Stephen McAneny, chief compliance officer of the Canpack Group. "Our Quadromix technology is the perfect solution for brands to tell their stories through their products' packaging."

"Recently, Bavaria beer partnered with Canpack to celebrate the brand's 300th anniversary, and through the Quadromix technology, Bavaria could honour its history and connection with the Netherlands with three limited-edition cans.

"As brands seek to mark milestones and important product releases, we look forward to working with them and utilising our Quadromix technology to provide multiple eye-catching designs in one production batch."

"When we marked our 300th Anniversary, we decided to use our packaging, which is our first physical point of contact with

our consumers, as our brand's storytelling tool. With this limited edition we wanted to enhance consumer engagement and celebrate our great milestone," said Roberta Gambino, head of marketing Italy of Swinkels Family Brewers (Bavaria).

"Canpack's Quadromix technology ensured that we could bring a number of different anniversary cans' designs to store shelves in the same production batch, which would be more eye-catching for the consumers and help build excitement for this historic moment."

## Cafe Agave Spiked Cold Brew expands distribution

The original canned coffee cocktail brand has expanded its distribution to 25 markets within the US.

Following the company's successful launch in Nevada and Arizona, Cafe Agave expanded to CA, WA, OR, CO, TX, NY, IN and IA in late 2019, with an additional 15 states planned for Q1 and Q2 2020.

Cafe Agave is a premium blend of 100% Arabica, Colombian cold brewed coffee, wine, agave sweetener, real dairy cream and other natural flavours. Each single-serve can is equivalent to half a cup of brewed coffee and one glass of wine.

"As craft is becoming the new norm among millennials and the like, Cafe Agave appeals to and serves an emerging audience of consumers who demand quality ingredients that they believe in," said Mark Scialdone, founder of Cafe Agave.

"We saw the industry's changing environment as an opportunity to create a product that meets and exceeds customers' expectations of flavour and quality."

Cafe Agave Spiked Cold Brew is available in sleek 6.3oz cans, sold in both singles and four-packs. As opposed to spirit-based RTD beverages, Cafe Agave can be sold anywhere beer and wine are sold. The four available flavours are:

Espresso Shot – blended espresso brew made from premium dark roast Arabica coffee, real dairy cream and agave sweetener

Caffe Mocha – flavours of mocha and pure cocoa blended with premium dark roast Arabica coffee

Salted Caramel – classic flavours of natural sea salt and caramel blended with premium dark roast Arabica coffee

Vanilla Cinnamon – vanilla and toasted cinnamon blended with premium dark roast Arabica coffee.

Co-founder of Cafe Agave, Ami-Lynn Bakshi, commented: "Cafe Agave is a ready to drink coffee cocktail for all occasions. And unlike the emerging lower abv coffee-beer segment, our spiked coffee is great by itself or mixed. At 12.5% abv, it can be served straight up, as an espresso martini or as the base of many great cocktails."



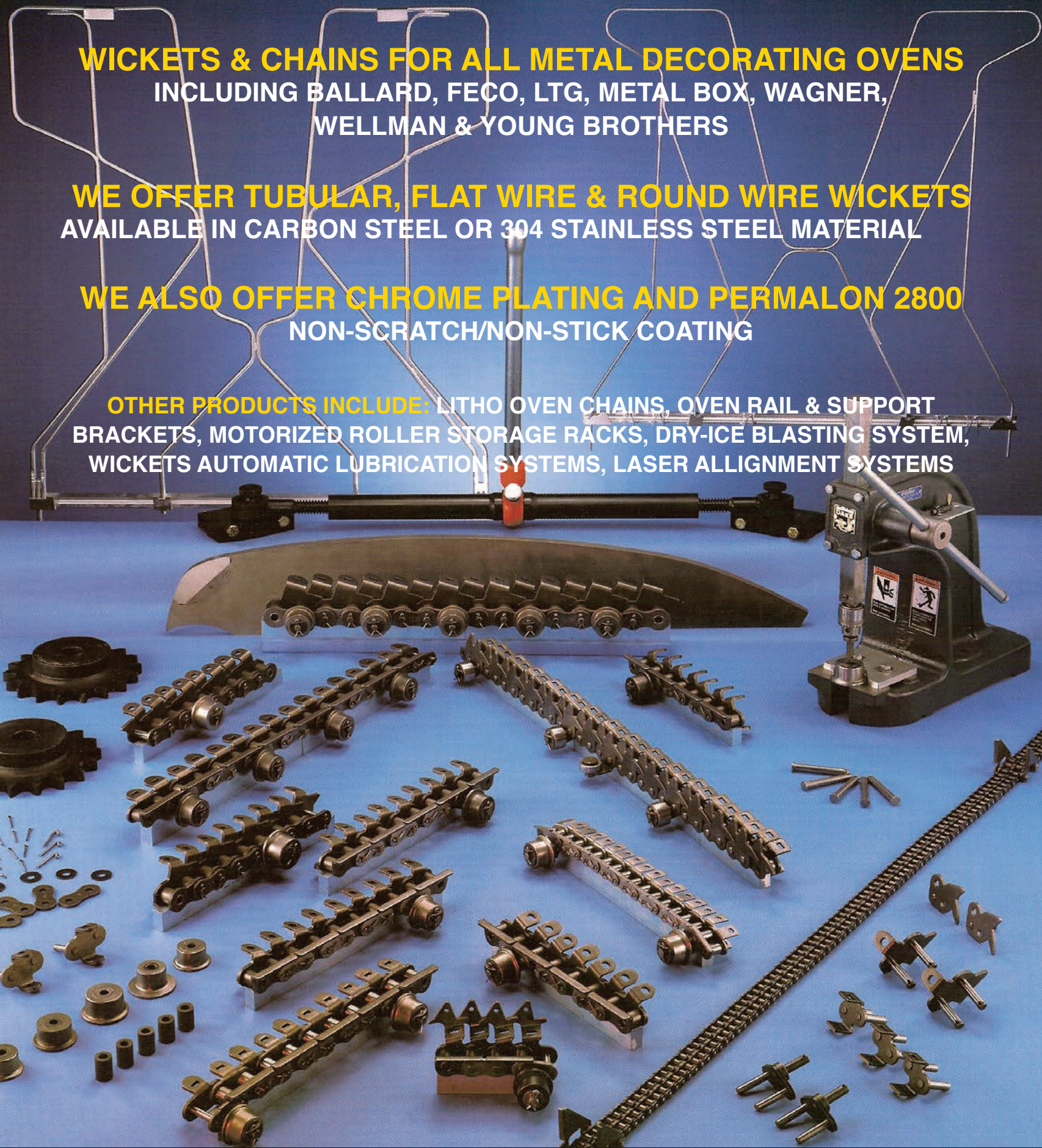


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West Yorkshire BD17 7AY, UK  
Tel: +44 1274 846 200  
Fax: +44 1274 846 201  
Web: www.cmbecanmaking.com



**Germann + Frei AG**  
Martinsbruggstrasse 92  
CH-9016 St. Gallen  
Switzerland  
Tel: +41 71 282 16 40  
Fax: +41 71 282 16 50  
Email: info@germannfrei.ch  
Web: www.germannfrei.ch

## BEVERAGE / SANITARY END-MAKING SYSTEMS



**Suzhou SLAC Precision Equipment Co, Ltd**

**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**SLAC Precision Equipment Corp North and South America**  
2045 Lyons Road,  
Miamisburg, Ohio 45342, USA.

Tel: +1 937 296 9226  
Web: www.slacdayton.com  
Email: administrator@slacdayton.com

**Corima International Machinery Srl EMEA**

Via F Fellini 11/a  
40051 Altedo di Malalbergo  
Bologna, Italy  
Tel: +39 0532 55345  
Fax: +39 0532 54504  
Web: www.corima.org  
Email: info@corima.org



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**BODYMAKER COOLANT FILTRATION SYSTEMS**



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**BODYMAKERS**



**Suzhou SLAC Precision Equipment Co Ltd**

**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**OKL Engineering Inc**  
11235 Sebring Drive, Cincinnati,  
Ohio 45240, USA  
Tel: +1 513 825 1655  
Web: www.oklcan.com  
Email: sales@oklcan.com

**BODYMAKERS D+I**



**Belvac Production Machinery Inc**

237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com



**CarnaudMetalbox Engineering plc**

Dockfield Road, Shipley  
W Yorkshire BD17 7AY, UK  
Tel: +44 1274 846 200  
Fax: +44 1274 846 201  
Email: marc.hoche@eur.crowncork.com  
Web: www.cmbecanmaking.com



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**BODYMAKER SPARE PARTS**



**Suzhou SLAC Precision Equipment Co Ltd**

**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**OKL Engineering Inc**  
11235 Sebring Drive, Cincinnati,  
Ohio 45240, USA  
Tel: +1 513 825 1655  
Web: www.oklcan.com  
Email: sales@oklcan.com

**Intercan Group Ltd EMEA**  
38 Burners Lane, Kiln Farm  
Milton Keynes MK11 3HB, UK  
Tel: +44 1908 566015  
Web: www.intercan.co.uk  
Email: sales@intercan.co.uk

**BODYMAKER TOOLING**

**WALLRAM GROUP SOLUTIONS IN HARD MATERIALS**

**LPT Lieb Precision Tool Inc**  
1819 S. Murray Blvd, Colorado Springs  
CO 80916 USA  
Tel: +1 719 355 2600  
Fax: +1 719 596 3019  
Email: sales@liebpt.com  
Web: www.liebpt.com

**WALLRAM GmbH**  
Schuermannstrasse 40, 45136 Essen  
Germany  
Tel: +49 201 89636 0  
Fax: + 49 201 89636 30  
Email: sales@wallram.com  
Web: www.wallram.com

**BOTTLE CAN MANUFACTURING EQUIPMENT**



**Belvac Production Machinery Inc**

237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com

**BURNER, OVEN & GAS CONTROL SPARES**

**HEATING & OVEN TECHNOLOGY LTD**

**Heating & Oven Technology**  
Cranleigh, Surrey  
GU6 7JX, UK  
Tel: +44 7803 888331  
Email: enquiries@heating-and-oven-technology.co.uk  
Web: www.heating-and-oven-technology.co.uk

**CAN CONVEYORS/ CONVEYING**



**Canline NL**  
Meerheide 216  
5521 DW Eersel, The Netherlands  
Tel: +31 497 53 11 00  
Fax: +31 497 53 11 09  
Email: info@canline.nl  
Web: www.canline.com

**Canline Systems USA**  
1807 Murry Rd SW, Suite P  
Roanoke, VA 24018, USA  
Tel: +31 497 53 11 00  
Fax: +31 497 53 11 09  
Email: info@canline.nl  
Web: www.canline.com



**Proline Engineering**  
29 Shield Drive  
Wardley Industrial Estate, Worsley,  
Manchester M28 2QB, UK  
Tel: +44 161 794 2738  
Fax: +44 161 794 6189  
Email: mail@proline-eng.co.uk  
Web: www.proline-eng.co.uk

**CAN DECORATING EQUIPMENT**



**Belvac Production Machinery Inc**

237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**CAN & DOUBLE SEAM TESTING EQUIPMENT**



**Canned Instrument Group Ltd**

Tel: +86 758 2788469  
Fax: +86 758 2782729  
Email: info@canneed.com  
Web: www.canneed.com



**METOP AB**  
Flygledaregatan 5  
212 39 Malmö, Sweden  
Tel: +46 40 16 32 35  
Email: info@metop.se  
Web: www.metop.se

**CAN END DIES**



**-AMADOR VARAS SA-**  
**Amador Varas SA**  
c/Montalegre 32  
08915 Badalona, Barcelona, Spain  
Tel: +34 933 952 954  
Fax: +34 933 954 904  
Email: varas@amador-varas.com  
Web: www.amador-varas.com



**CAN LINE CONTROL SYSTEMS**



**Roeslein & Associates Inc**  
9200 Watson Road, Suite 200  
St Louis, MO 63126-1528, USA  
Tel: +1 314 729 0055  
Fax: +1 314 729 0070  
Email: sales@roeslein.com  
Web: www.roeslein.com

**CAN MAKING MACHINES AND COMPLETE LINES**

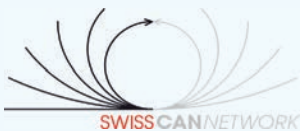


**Gebrüder Leonhardt GMBH & CO KG Blema Kircheis**  
Erdmann-Kircheis-Strasse 13-15  
D-08280 Aue, Germany  
Tel: +49 3771 278 227  
Fax: +49 3771 278 241  
Email: blema@blema-kircheis.de  
Web: www.blema.de

**CAN MAKING MACHINES AND COMPLETE LINES**



**Shin-I Machinery Works Co Ltd**  
No 43 Chung Cheng St  
Chingshui, Taichung, Taiwan ROC  
Tel: +886 4 2623 8181  
Fax: +886 4 2623 2129  
Email: contact@shinican.com.tw  
Web: www.shinican.com



**SWISSCAN Network**  
Muelisacker 221  
CH-5705 Hallwil, Switzerland  
Tel: +41 62 777 44 40  
Fax: +41 62 777 44 41  
Email: box@swisscan.net  
Web: www.swisscan.net

**CAN TESTING EQUIPMENT**



**BA.SCO srl**  
Via Borgognone 9  
10090 Trana (Torino), Italy  
Tel: +39 0119 33620  
Fax: +39 0119 355 763  
Email: sales@basco-testers.com  
Web: www.basco-testers.com



**Caneed Instrument Group Ltd**  
Tel: +86 758 2788469  
Fax: +86 758 2782729  
Email: info@canneed.com  
Web: www.canneed.com



**InnoScan A/S**  
Sødalsparken 11  
8220 Brabrand, Denmark  
Tel: +45 86 26 5677  
Fax: +45 86 26 5678  
Email: innoscan@innoscan.dk  
Web: www.innoscan.dk



**METOP AB**  
Flygledaregatan 5, 212 39 Malmö, Sweden  
Tel: +46 40 16 32 35  
Email: info@metop.se  
Web: www.metop.se



**Sencon**  
**North, Central & South America**  
Sencon Incorporated  
6385 W 74th Street  
Bedford Park, IL 60638, USA  
Tel: +1 708 496 3100  
Fax: +1 708 496 3105  
Email: info@sencon.com  
**Europe, Middle East, Asia, Africa, Australasia**  
Sencon (UK) Ltd  
Pointon Way  
Stonebridge Cross Business Park  
Droitwich WR9 0LW, UK  
Tel: +44 1905 827800  
Fax: +44 1905 795876  
Email: info@sencon.co.uk  
**China, Hong Kong, South East Asia**  
Sencon (HK) Ltd  
Unit 202, 2/F, Building 12W  
No 12 Science Park West Avenue  
Phase 3 Hong Kong Science Park  
Pak Shek Kok, NT, Hong Kong  
Tel: +852 397 33860  
Fax: +852 302 06140  
Email: info@sencon.hk  
**Web: www.sencon.com**



**Sensory Analytics**  
The Sensory Building  
4413 West Market Street  
Greensboro, NC 27407, USA  
Tel: +1 336 315 6090  
Fax: +1 336 315 6030  
Email: info@specmetrix.com  
Web: www.specmetrix.com



**Bonfiglioli Engineering Srl**  
Via Amerigo Vespucci, 20  
44124 Ferrara, Italy  
Tel: +39 0532 715631  
Fax: +39 0532 715625  
Email: marketing@bonfiglioliengineering.com  
Web: www.bonfiglioliengineering.com



**Torus Measurement Systems**  
Nedge Hill Science Park  
Telford TF3 3AJ, UK  
Tel: +44 1952 210020  
Fax: +44 1952 299804  
Email: tms.sales@torus-group.com  
Web: www.torus-group.com

**CAN TOOLING**



**Belvac Production Machinery Inc**  
237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com



**LPT Lieb Precision Tool Inc**  
1819 S. Murray Blvd, Colorado Springs  
CO 80916 USA  
Tel: +1 719 355 2600  
Fax: +1 719 596 3019  
Email: sales@liebpt.com  
Web: www.liebpt.com  
**WALLRAM GmbH**  
Schuermannstrasse 40, 45136 Essen  
Germany  
Tel: +49 201 89636 0  
Fax: +49 201 89636 30  
Email: sales@wallram.com  
Web: www.wallram.com

**CAN TRIMMERS**



**Belvac Production Machinery Inc**  
237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com



**Suzhou SLAC Precision Equipment Co, Ltd**  
**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn  
**SLAC Precision Equipment Corp**  
**North and South America**  
2045 Lyons Road,  
Miamisburg, Ohio 45342, USA.  
Tel: +1 937 296 9226  
Web: www.slacdayton.com  
Email: administrator@slacdayton.com



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**CAN WASHERS/OVENS**



**VMI Holland BV**  
Gelriaweg 16  
8161 RK Epe  
The Netherlands  
Tel: +31 578 679 111  
Fax: +31 578 621 317  
Email: sales@vmi-group.com  
Web: www.vmi-group.com

**CAP MAKING MACHINES**



**Gebrüder Leonhardt  
GMBH & CO KG Blema Kircheis**  
Erdmann-Kircheis-Strasse 13-15  
D-08280 Aue, Germany  
Tel: +49 3771 278 227  
Fax: +49 3771 278 241  
Email: blema@blema-kircheis.de  
Web: www.blema.de



**Rainer Naroska Engineering GmbH**  
Im Hengstfeld 19  
32657 Lemgo, Germany  
Tel: +49 5261 6606 0  
Fax: +49 5261 6606 30  
Email: sales@naroska.com  
Web: www.naroska.com

**CAPPING MACHINES**



**Sommetrade SL**  
Parque Tecnológico de Zamudio -  
Edificio 301  
48170 Zamudio (Vizcaya), Spain  
Tel: +34 94 431 8611  
Fax: +34 94 431 8200  
Email: j.vivanco@sommetrade.com  
Web: www.sommetrade.com

**CLUTCH PARTS**



**Applied Power Solutions**  
1718 W, Armitage Court  
Addison, IL 60101, USA  
Tel: +1 630 599 3000  
Tel: +1 888 277 9901  
Email: sales@apscorp.com  
Web: www.apscorp.com

**COATER LITHO PRESS PARTS & SERVICES**



**Perm Machine & Tool Co**  
PO Box 660, 9660 Industrial Drive  
St John, Indiana 46373, USA  
Tel: +1 219 365 5000  
Fax: +1 219 365 4847  
Email: perm@permmachine.com  
Skype: perm\_machine  
Web: www.permmachine.com

**COATER PARTS**



**Perm Machine & Tool Co**  
PO Box 660, 9660 Industrial Drive  
St John, Indiana 46373, USA  
Tel: +1 219 365 5000  
Fax: +1 219 365 4847  
Email: perm@permmachine.com  
Skype: perm\_machine  
Web: www.permmachine.com

**COATING MACHINES**



**Fuji Kikai Kogyo Co Ltd**  
2-7-1 lida, Hachihonmatsu,  
Higashihiroshima-shi  
Hiroshima Pref 739-0146, Japan  
Metal Decorating Machinery Div  
Metal Decorating Sales Dept  
Tel: +81 82 428 2455  
Fax: +81 82 428 8912  
Email: primex@fujikikai.co.jp  
Web: www.fujikikai.co.jp



**Inghor, S.A (Ingeniería y Hornos, S.A.)**  
Edificio Albia  
C/ San Vicente 8, Planta 9  
48001 Bilbao,  
SPAIN  
Tel: +34 944 411 012 / 313  
Fax: +34 944 411 066  
Email: inghor@inghor.es  
Web: www.inghor.es

**KOENIG & BAUER**

**Koenig & Bauer MetalPrint GmbH**  
Wernerstr. 119-129  
D-70435 Stuttgart, Germany  
Tel: +49 711 69971-0  
Fax: +49 711 69971-670  
E-mail: info-metalprint@koenig-bauer.com  
Web: metalprint.koenig-bauer.com



**Miotto Este spa**  
Via Talamoni, 4  
I-20861 Brugherio (MB), Italy  
Tel: +39 0392 878 284  
Fax: +39 0398 84 594  
Email: info@miottoeste.it  
Web: www.miottoeste.it



**Perm Machine & Tool Co**  
PO Box 660, 9660 Industrial Drive  
St John, Indiana 46373, USA  
Tel: +1 219 365 5000  
Fax: +1 219 365 4847  
Email: perm@permmachine.com  
Skype: perm\_machine  
Web: www.permmachine.com



**TEC Technology GmbH**  
Service for the metal decorating industry  
**TEC Technology GmbH**  
Carl-Benz-Str.12  
D-74366 Kirchheim am Neckar, Germany  
Tel: +49 7143 9617280  
Fax: +49 7143 9617281  
E-mail: info@tec-technology.de  
Web: www.tec-technology.de

**COATING MACHINES  
BOTTOM RIM**



**Belvac Production Machinery Inc**  
237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com

**COIL HANDLING SYSTEMS**



**Hengli CNC Technology Co, Ltd**  
265 Yixian Road, Wukang Town  
Deqing County, Zhejiang Province  
313200, China  
Tel: +86 572 8832016  
+86 572 8832000  
Fax: +86 572 8832222  
Email: sales@zjhlcnc.com  
Web: www.zjhlcnc.com



**Suzhou SLAC Precision Equipment  
Co Ltd**  
**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**COIL HANDLING SYSTEMS**



**Nidec Minster Corporation**  
240 West Fifth Street  
Minster, OH 45865-0120 U.S.A.  
Tel: +1 419 628 2331  
Fax: +1 419 628 4224  
Email: sales@minster.com  
Web: www.minster.com



**Perfecto Industries, Inc**  
1729 W. High Street  
Piqua, OH 45356, USA  
Tel: +1 937 778 1900  
Fax: +1 937 773 7332  
Email: sales@perfectoindustries.com  
Web: www.perfectoindustries.com

**COMPLETE CAN LINES  
(THREE-PIECE)**



**Shin-I Machinery Works Co Ltd**  
No 43 Chung Cheng St  
Chingshui, Taichung, Taiwan ROC  
Tel: +886 4 2623 8181  
Fax: +886 4 2623 2129  
Email: contact@shinican.com.tw  
Web: www.shinican.com



**COMPLETE CAN LINES  
(THREE-PIECE)**



**SWISSCAN Network**  
Muelisacker 221  
CH-5705 Hallwil, Switzerland  
Tel: +41 62 777 44 40  
Fax: +41 62 777 44 41  
Email: box@swisscan.net  
Web: www.swisscan.net

**COMPLETE CAN LINES  
(TWO-PIECE)**



**Rainer Naroska Engineering GmbH**  
Im Hengstfeld 19  
32657 Lemgo, Germany  
Tel: +49 5261 6606 0  
Fax: +49 5261 6606 30  
Email: sales@naroska.com  
Web: www.naroska.com



**Roeslein & Associates Inc**  
9200 Watson Road, Suite 200  
St Louis, MO 63126-1528, USA  
Tel: +1 314 729 0055  
Fax: +1 314 729 0070  
Email: sales@roeslein.com  
Web: www.roeslein.com

**COMPLETE END-MAKING  
LINES**



**Gebrüder Leonhardt  
GMBH & CO KG Blema Kircheis**  
Erdmann-Kircheis-Strasse 13-15  
D-08280 Aue, Germany  
Tel: +49 3771 278 227  
Fax: +49 3771 278 241  
Email: blema@blema-kircheis.de  
Web: www.blema.de



**Rainer Naroska Engineering GmbH**  
Im Hengstfeld 19  
32657 Lemgo  
Germany  
Tel: +49 5261 6606 0  
Fax: +49 5261 6606 30  
Email: sales@naroska.com  
Web: www.naroska.com



**Shin-I Machinery Works Co Ltd**  
No 43 Chung Cheng St  
Chingshui, Taichung, Taiwan ROC  
Tel: +886 4 2623 8181  
Fax: +886 4 2623 2129  
Email: contact@shinican.com.tw  
Web: www.shinican.com

**COMPOUND LINING  
EQUIPMENT**



**STOLLE MACHINERY**  
**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**CONTAINER PRESSES**



**Ing Yu Precision Industries Co, Ltd**  
43-11 Sha-Tien Road, Sha-Lu District,  
Taichung, Taiwan ROC  
Tel: +886 4 2635 8569  
Fax: +886 4 2635 3068  
E-mail: info@ingyu.com  
Web: www.ingyu.com



**Nidec Minster Corporation**  
240 West Fifth Street  
Minster, OH 45865-0120, USA  
Tel: +1 419 628 2331  
Fax: +1 419 628 4224  
Email: sales@minster.com  
Web: www.minster.com

**CONVEYOR BELTS FOR  
CAN WASHERS**



**Ashworth Bros, Inc**  
450 Armour Dale  
Winchester, VA 22601, USA  
Tel: +1 540 662 3494  
Fax: +1 540 662 3150  
Email: ashworth@ashworth.com  
Web: www.ashworth.com

**CONVEYOR COMPONENTS**



**Pride Conveyance Systems:**  
**A Roeslein Company**  
9200 Watson Road, Suite 200 St Louis,  
MO 63126-1528, USA  
Tel: +1 314 729 0055  
Fax: +1 314 729 0070  
Email: sales@roeslein.com  
Web: www.roeslein.com

**CONVEYORS: MAGNETIC**



**Bunting-Newton**  
500 S Spencer Avenue  
PO Box 468, Newton  
KS 67114-0468, USA  
Tel: +1 316 284 2020  
Fax: +1 316 283 4975  
Email: bmc@buntingmagnetics.com  
Web: www.buntingmagnetics.com



**Canline NL**  
Meerheide 216  
5521 DW Eersel, The Netherlands  
Tel: +31 497 53 11 00  
Fax: +31 497 53 11 09  
Email: info@canline.nl  
Web: www.canline.com

**Canline Systems USA**  
1807 Murry Rd SW, Suite P  
Roanoke, VA 24018, USA  
Tel: +31 497 53 11 00  
Fax: +31 497 53 11 09  
Web: www.canline.com  
Email: info@canline.nl

**CUPPING PRESS SYSTEMS**



**Belvac Production Machinery Inc**  
237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com



**Suzhou SLAC Precision Equipment Co, Ltd**  
**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn  
**SLAC Precision Equipment Corp**  
**North and South America**  
2045 Lyons Road,  
Miamisburg, Ohio 45342, USA.  
Tel: +1 937 296 9226  
Web: www.slacdayton.com  
Email: administrator@slacdayton.com



**STOLLE MACHINERY**  
**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**CUPPING/SHELL DIES**



**Suzhou SLAC Precision Equipment Co, Ltd**  
**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**DECORATORS & BASECOATER FOR TWO-PIECE CANS**



**Suzhou SLAC Precision Equipment Co, Ltd**

**Asia and ROW**

1028 Sunwu Road, Wuzhong District, Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**Intercan Group Ltd EMEA**

38 Burners Lane, Kiln Farm Milton Keynes, MK11 3HB United Kingdom  
Tel: +44 1908 566015  
Fax: +44 1908 560638  
Web: www.intercan.co.uk  
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Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**Intercan Group Ltd EMEA**

38 Burners Lane, Kiln Farm Milton Keynes, MK11 3HB United Kingdom  
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Email: blema@blema-kircheis.de  
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Web: www.pridecan.com

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Dockfield Road Shipley, West Yorkshire BD17 7AY, UK  
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Fax: +44 1274 846 201  
Email: marc.hoche@eur.crowncork.com  
Web: www.cmbecanmaking.com

**DOUBLE SHEET DETECTION**



**Prime Controls, Inc.**

**World Headquarters:**  
4528 Gateway Circle Dayton, OH 45440-1712, USA  
Tel: +1 937 435 8659  
Fax: +1 937 435 2091  
Email: vip@primecontrols.com  
Web: www.primecontrols.com

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**Rainer Naroska Engineering GmbH**

Im Hengstfeld 19 32657 Lemgo, Germany  
Tel: +49 5261 6606 0  
Fax: +49 5261 6606 30  
Email: sales@naroska.com  
Web: www.naroska.com



**Shin-I Machinery Works Co Ltd**

No 43 Chung Cheng St Chingshui, Taichung, Taiwan ROC  
Tel: +886 4 2623 8181  
Fax: +886 4 2623 2129  
Email: contact@shinican.com.tw  
Web: www.shinican.com



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**

6949 S. Potomac Street Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

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Web: www.penalver.com



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Edificio Albia C/ San Vicente 8, Planta 9 48001 Bilbao, SPAIN  
Tel: +34 944 411 012 / 313  
Fax: +34 944 411 066  
Email: inghor@inghor.es  
Web: www.inghor.es

**KOENIG & BAUER**

**Koenig & Bauer MetalPrint GmbH**

Wernerstr. 119-129 D-70435 Stuttgart, Germany  
Tel: +49 711 69971-0  
Fax: +49 711 69971-670  
Email: info-metalprint@koenig-bauer.com  
Web: www.metalprint.koenig-bauer.com



**Miotto Este spa**

Via Talamoni, 4 I-20861 Brugherio (MB), Italy  
Tel: +39 0392 878 284  
Fax: +39 0398 84594  
Email: info@miottoeste.it  
Web: www.miottoeste.it



**sellacan Industrieofen GmbH**

Daimlerstr 12, D-32791 Lagr, Germany  
Tel: +49 5232 69900  
Fax: +49 5232 699028  
Email: info@sellacan.de  
Web: www.sellacan.de



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**

6949 S. Potomac Street Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

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Carl-Benz-Str.12 D-74366 Kirchheim am Neckar, Germany  
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**GM Technologies**

Headquarters: Via Molinelle 113, 80045 Pompei (NA), Italy  
Factory: Zona PIP – via Orto di Cioglia 83045 Calitri (AV), Italy  
Tel: +39 081 850 34 14  
+39 081 388 30 893  
Fax: +39 081 365 24 73  
Email : info@gmtechs.it  
Web: www.gmtechs.it





**Rainer Naroska Engineering GmbH**  
Im Hengstfeld 19  
32657 Lemgo, Germany  
Tel: +49 5261 6606 0  
Fax: +49 5261 6606 30  
Email: sales@naroska.com  
Web: www.naroska.com



**Suzhou SLAC Precision Equipment Co, Ltd**

**Asia and ROW**

1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**SLAC Precision Equipment Corp  
North and South America**

2045 Lyons Road,  
Miamisburg, Ohio 45342, USA  
Tel: +1 937 296 9226

Web: www.slacdayton.com

Email: administrator@slacdayton.com

**Corima International Machinery Srl  
EMEA**

Via F Fellini 11/a  
40051 Altedo di Malalbergo  
Bologna, Italy

Tel: +39 0532 55345

Fax: +39 0532 54504

Web: www.corima.org

Email: info@corima.org



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**

6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044

Fax: +1 303 708 9045

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Fax: +34 968 38 90 19

Email: info@penalver.com

Web: www.penalver.com



**sellacan Industrieofen GmbH**

Daimlerstr 12, D-32791 Lage, Germany  
Tel: +49 5232 69900

Fax: +49 5232 699028

Email: info@sellacan.de

Web: www.sellacan.de



**Suzhou SLAC Precision Equipment Co, Ltd**

**Asia and ROW**

1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China

Tel: +86 512 6693 9207

Fax: +86 512 6624 8543

Web: www.slac.com.cn

E-mail: slac@slac.com.cn

**Corima International Machinery Srl  
EMEA**

Via F Fellini 11/a

40051 Altedo di Malalbergo

Bologna, Italy

Tel: +39 0532 55345

Fax: +39 0532 54504

Web: www.corima.org

Email: info@corima.org

**EASY OPEN END TESTING  
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**InnoScan A/S**

Sødalsparken 11  
8220 Brabrand, Denmark

Tel +45 86 26 5677

Fax +45 86 26 5678

Email: innoscan@innoscan.dk

Web: www.innoscan.dk



**Bonfiglioli Engineering Srl**

Via Amerigo Vespucci, 20  
44124 Ferrara, Italy

Tel: +39 0532 715631

Fax: +39 0532 715625

Email: marketing@bonfiglioliengineering.com

Web: www.bonfiglioliengineering.com

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Cervantes House, 5-9 Headstone Road  
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Tel: +44 20 8861 3505

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**END COMPOUND LINERS**



**CarnaudMetalbox Engineering plc**

Dockfield Road, Shipley  
W Yorkshire BD17 7AY, UK

Tel: +44 1274 846 200

Fax: +44 1274 846 201

Email: marc.hoche@eur.crown Cork.com

Web: www.cmbcanmaking.com

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**DRT Mfg. Co.**

618 Greenmount Blvd  
Dayton, OH 45419, USA

Tel: +1 937 298 7391

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Web: www.drmtfco.com



**DRT GmbH & Co KG**

Hansestrasse 49  
D-38112 Braunschweig, Germany

Tel: +49 531 231 620

Fax: +49 531 231 6244

Email: info@drt-europe.de

Web: www.drt-europe.de

**END TESTING EQUIPMENT**



**Canned Instrument Group Ltd**

Tel: +86 758 2788469

Fax: +86 758 2782729

Email: info@canneed.com

Web: www.canneed.com



**InnoScan A/S**

Sødalsparken 11

8220 Brabrand, Denmark

Tel +45 86 26 5677

Fax +45 86 26 5678

Email: innoscan@innoscan.dk

Web: www.innoscan.dk



**METOP AB**

Flygledaregatan 5

212 39 Malmö, Sweden

Tel: +46 40 16 32 35

Email: info@metop.se

Web: www.metop.se



**Mühlbauer AG**

Josef-Mühlbauer-Platz 1

93426 Roding, Germany

Tel: +49 9461 952 - 0

Fax: +49 9461 952 - 1101

Email: temavision@muehlbauer.de

Web: www.muehlbauer.de



**Sencon**

**North, Central & South America**

Sencon Incorporated

6385 W 74th Street

Bedford Park, IL 60638, USA

Tel: +1 708 496 3100

Fax: +1 708 496 3105

Email: info@sencon.com

**Europe, Middle East, Asia, Africa,  
Australasia**

Sencon (UK) Ltd

Pointon Way, Stonebridge Cross Business Park  
Droitwich WR9 0LW, UK

Tel: +44 1905 827800

Fax: +44 1905 795876

**China, Hong Kong, South East Asia**

Sencon (HK) Ltd

Unit 202, 2/F, Building 12W

No 12 Science Park West Avenue

Phase 3 Hong Kong Science Park

Pak Shek Kok, NT, Hong Kong

Tel: +852 397 33860

Fax: +852 302 06140

Email: info@sencon.hk

Web: www.sencon.com

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Technology by SENSORY ANALYTICS

Sensory Analytics

The Sensory Building  
4413 West Market Street  
Greensboro, NC 27407, USA  
Tel: +1 336 315 6090  
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Email: info@specmetrix.com  
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STOLLE MACHINERY

Stolle Europe

33 Peterfield Rd  
Kingstown Industrial Estate  
Carlisle, Cumbria CA3 0EY, UK  
Tel: +44 1228 818 125  
Fax: +44 1228 514 720  
Email:  
marcel.schoumacker@stolleeurope.com  
Web: www.stollemachinery.com

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Tel: +86 758 2788469  
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North, Central & South America

Sencon Incorporated  
6385 W 74th Street  
Bedford Park, IL 60638, USA  
Tel: +1 708 496 3100  
Fax: +1 708 496 3105  
Email: info@sencon.com

Europe, Middle East, Asia, Africa, Australasia

Sencon (UK) Ltd  
Pointon Way, Stonebridge Cross Business  
Park, Droitwich WR9 0LW, UK  
Tel: +44 1905 827800  
Fax: +44 1905 795876  
Email: info@sencon.co.uk

China, Hong Kong, South East Asia

Sencon (HK) Ltd  
Unit 202, 2/F, Building 12W  
No 12 Science Park West Avenue  
Phase 3 Hong Kong Science Park  
Pak Shek Kok, NT, Hong Kong  
Tel: +852 397 33860  
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Email: info@sencon.hk  
Web: www.sencon.com



Technology by SENSORY ANALYTICS

Sensory Analytics

The Sensory Building  
4413 West Market Street  
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Web: www.canman.ch  
Member of SWISSCAN Network  
Web: www.swisscan.net



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Henriettenstraße 90  
73230 Kirchheim/Teck, Germany  
Tel: +49 7021 579-0  
Fax: +49 7021 579 - 48 238  
Email: info@sprimag.de  
Web: www.sprimag.de

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38 Burners Lane, Kiln Farm  
Milton Keynes, MK11 3HB  
United Kingdom  
Tel: +44 1908 566015  
Web: www.intercan.co.uk  
Email: sales@intercan.co.uk

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Sensory Analytics

The Sensory Building  
4413 West Market Street  
Greensboro, NC 27407, USA  
Tel: +1 336 315 6090  
Fax: +1 336 315 6030  
Email: info@specmetrix.com  
Web: www.specmetrix.com

INSIDE SPRAY EQUIPMENT



Suzhou SLAC Precision Equipment Co, Ltd

Asia and ROW

1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
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Corima International Machinery Srl EMEA

Via F Fellini 11/a  
40051 Altedo di Malalbergo  
Bologna, Italy  
Tel: +39 0532 55345  
Fax: +39 0532 54504  
Web: www.corima.org  
Email: info@corima.org



STOLLE MACHINERY

Stolle Machinery Company, LLC

6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

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CarnaudMetalbox Engineering plc

Dockfield Road, Shipley  
West Yorkshire BD17 7AY, UK  
Tel: +44 1274 846 200  
Fax: +44 1274 846 201  
Email: marc.hoche@eur.crown Cork.com  
Web: www.cmbcanmaking.com



Sprimag Spritzmaschinenbau GmbH & Co. KG

Henriettenstraße 90  
73230 Kirchheim/Teck, Germany  
Tel: +49 7021 579-0  
Fax: +49 7021 579 - 48 238  
Email: info@sprimag.de  
Web: www.sprimag.de



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**Environmental Services & Technologies Inc**

**Midwest Office**

4941 41st Street Court  
Moline, IL 61265, USA  
Tel: +1 309 762 9551  
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1155 South Milliken Avenue  
Ontario, CA 91761, USA  
Tel: +1 909 295 6255  
Fax: +1 909 295 5531  
Email: info@envsvr.com  
Web: www.envsvr.com

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St John, Indiana 46373, USA  
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Fax: +1 219 365 4847  
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Skype: perm\_machine  
Web: www.permmachine.com

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PO Box 1128, Torrington  
CT 06790, USA  
Tel: +1 860 482 7628  
Fax: +1 860 496 0255  
Email: tech@altekcompany.com  
Web: www.altekcompany.com



**Applied Vision Corporation**

2020 Vision Lane,  
Akron, OH 44223, USA  
Tel: +1 330 926 2222  
Fax: +1 330 926 2250  
Email: sales@appliedvision.com  
Web: www.appliedvision.com



**Belvac Production Machinery Inc**

237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com



**Canned Instrument Group Ltd**

Tel: +86 758 2788469  
Fax: +86 758 2782729  
Email: info@canned.com  
Web: www.canned.com



**InnoScan A/S**

Sødalsparken 11  
8220 Brabrand, Denmark  
Tel +45 86 26 5677  
Fax +45 86 26 5678  
Email: innoscan@innoscan.dk  
Web: www.innoscan.dk



**ISRA Vision AG**

Industriestrasse 14  
64297 Darmstadt, Germany  
Tel: +49 6151 948 0  
Fax: +49 6151 948 140  
Email: info@isravision.com  
Web: www.isravision.com



**METOP AB**

Flygledaregatan 5  
212 39 Malmö, Sweden  
Tel: +46 40 16 32 35  
Email: info@metop.se  
Web: www.metop.se



**Mühlbauer AG**

Josef-Mühlbauer-Platz 1  
93426 Roding, Germany  
Tel: +49 9461 952 - 0  
Fax: +49 9461 952 - 1  
Email: temavision@muehlbauer.de  
Web: www.muehlbauer.de



**Pressco Technology Inc**

29200 Aurora Road  
Cleveland, OH 44139, USA  
Tel: +1 440 498 2600  
Fax: +1 440 498 2615  
Email: sales@pressco.com  
Web: www.pressco.com



**Prime Controls, Inc.**

**World Headquarters:**

4528 Gateway Circle  
Dayton, OH 45440-1712, USA  
Tel: +1 937 435 8659  
Fax: +1 937 435 2091  
Email: vip@primecontrols.com  
Web: www.primcontrols.com



**Sencon**

**North, Central & South America**

Sencon Incorporated  
6385 W 74th Street  
Bedford Park, IL 60638, USA  
Tel: +1 708 496 3100  
Fax: +1 708 496 3105  
Email: info@sencon.com

**Europe, Middle East, Asia, Africa, Australasia**

Sencon (UK) Ltd  
Pointon Way  
Stonebridge Cross Business Park  
Droitwich WR9 0LW, UK  
Tel: +44 1905 827800  
Fax: +44 1905 795876  
Email: info@sencon.co.uk

**China, Hong Kong, South East Asia**

Sencon (HK) Ltd  
Unit 202, 2/F, Building 12W  
No 12 Science Park West Avenue  
Phase 3 Hong Kong Science Park  
Pak Shek Kok, NT, Hong Kong  
Tel: +852 397 33860  
Fax: +852 302 06140  
Email: info@sencon.hk  
Web: www.sencon.com



Technology by SENSORY ANALYTICS

**Sensory Analytics**

The Sensory Building  
4413 West Market Street  
Greensboro, NC 27407, USA  
Tel: +1 336 315 6090  
Fax: +1 336 315 6030  
Email: info@specmetrix.com  
Web: www.specmetrix.com



**Suzhou SLAC Precision Equipment Co, Ltd**

**Asia and ROW**

1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**Corima International Machinery Srl EMEA**

Via F Fellini 11/a  
40051 Altedo di Malalbergo  
Bologna, Italy  
Tel: +39 0532 55345  
Fax: +39 0532 54504  
Web: www.corima.org  
Email: info@corima.org

**LEAK DETECTION**



**BA.SCO srl**

Via Borgognone 9  
10090 Trana (Torino), Italy  
Tel: +39 0119 33620  
Fax: +39 0119 355 763  
Email: sales@basco-testers.com  
Web: www.basco-testers.com



**InnoScan A/S**

Sødalsparken 11  
8220 Brabrand, Denmark  
Tel: +45 86 26 5677  
Fax: +45 86 26 5678  
Email: innoscan@innoscan.dk  
Web: www.innoscan.dk



**Prime Controls, Inc.**

**World Headquarters:**

4528 Gateway Circle, Dayton,  
Ohio 45440-1712, USA  
Tel: +1 937 435 8659  
Fax: +1 937 435 2091  
Email: vip@primecontrols.com  
Web: www.primcontrols.com



**Shantou Xinqing Cannery Machinery Co, Ltd**

B7 Jinxing Road, Jinyan Industrial Area,  
Shantou, China  
Tel: +86-754-82122088/82123088  
Fax: +86-754-82124088  
Email: xq@canning-machinery.cn  
Web: www.canning-machinery.cn

LEAK DETECTION



**Bonfiglioli Engineering Srl**  
Via Amerigo Vespucci, 20  
44124 Ferrara, Italy  
Tel: +39 0532 715631  
Fax: +39 0532 715625  
Email: marketing@bonfiglioliengineering.com  
Web: www.bonfiglioliengineering.com

LEAK TESTERS



**InnoScan A/S**  
Sødalsparken 11, 8220 Brabrand  
Denmark  
Tel: +45 86 26 5677  
Fax: +45 86 26 5678  
Email: innoscan@innoscan.dk  
Web: www.innoscan.dk

LIGHT TESTERS



**InnoScan A/S**  
Sødalsparken 11  
8220 Brabrand, Denmark  
Tel: +45 86 26 5677  
Fax: +45 86 26 5678  
Email: innoscan@innoscan.dk  
Web: www.innoscan.dk



**Sencon**  
**North, Central & South America**  
Sencon Incorporated  
6385 W 74th Street  
Bedford Park, IL 60638, USA  
Tel: +1 708 496 3100  
Fax: +1 708 496 3105  
Email: info@sencon.com  
**Europe, Middle East, Asia, Africa, Australasia**  
Sencon (UK) Ltd  
Pointon Way  
Stonebridge Cross Business Park  
Droitwich WR9 0LW, UK  
Tel: +44 1905 827800  
Fax: +44 1905 795876  
Email: info@sencon.co.uk  
**China, Hong Kong, South East Asia**  
Sencon (HK) Ltd  
Unit 202, 2/F, Building 12W  
No 12 Science Park West Avenue  
Phase 3 Hong Kong Science Park  
Pak Shek Kok, NT, Hong Kong  
Tel: +852 397 33860  
Fax: +852 302 06140  
Email: info@sencon.hk  
**Web: www.sencon.com**



**STOLLE MACHINERY**  
**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

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**Roeslein & Associates Inc**  
9200 Watson Road, Suite 200  
St Louis, MO 63126-1528, USA  
Tel: +1 314 729 0055  
Fax: +1 314 729 0070  
Email: sales@roeslein.com  
Web: www.roeslein.com

LINERS FOR NON-ROUND ENDS



**Industrias Peñalver SL**  
Pol. Industrial El Tapiado  
C/ Albaricoque s/n, Molina de Segura  
30500 Murcia, Spain  
Tel: +34 968 38 90 88  
Fax: +34 968 38 90 19  
Email: info@penalver.com  
Web: www.penalver.com

LUG CAP MANUFACTURING LINES



**Rainer Naroska Engineering GmbH**  
Im Hengstfeld 19  
32657 Lemgo, Germany  
Tel: +49 5261 6606 0  
Fax: +49 5261 6606 30  
Email: sales@naroska.com  
Web: www.naroska.com



**Shin-I Machinery Works Co Ltd**  
No 43 Chung Cheng St  
Chingshui, Taichung, Taiwan ROC  
Tel: +886 4 2623 8181  
Fax: +886 4 2623 2129  
Email: contact@shinican.com.tw  
Web: www.shinican.com

MAGNETIC DECORATOR CYLINDERS



**Bunting-Newton**  
500 S Spencer Avenue  
PO Box 468, Newton  
KS 67114-0468, USA  
Tel: +1 316 284 2020  
Fax: +1 316 283 4975  
Email: bmc@buntingmagnetics.com  
Web: www.buntingmagnetics.com



**T. D. Wright Inc**  
292 Walnut Street  
St Paul, MN 55102, USA  
Tel: +1 651 227 1302  
Fax: +1 651 227 4465  
Email: office@tdwinc.com  
Web: www.tdwright.com

METAL DECORATING EQUIPMENT



**CarnaudMetalbox Engineering plc**  
Dockfield Road, Shipley  
West Yorkshire BD17 7AY, UK  
Tel: +44 1274 846 200  
Fax: +44 1274 846 201  
Email: marc.hoche@eur.crown Cork.com  
Web: www.cmbecanmaking.com



**Fuji Kikai Kogyo Co Ltd**  
2-7-1 Iida, Hachihonmatsu,  
Higashihiroshima-shi  
Hiroshima Pref 739-0146, Japan  
Metal Decorating Machinery Div  
Metal Decorating Sales Dept  
Tel: +81 82 428 2455  
Fax: +81 82 428 8912  
Email: primex@fujikikai.co.jp  
Web: www.fujikikai.co.jp



**Hebenstreit Metal Decorating GmbH**  
Gottlieb-Daimler-Strasse 15/2  
74385 Pleidelsheim, Germany  
Tel: +49 7144 88980-0  
Fax: +49 7144 88980-50  
Email: info@hebenstreit-gmbh.de  
Web: www.hebenstreit-gmbh.de

KOENIG & BAUER

**Koenig & Bauer MetalPrint GmbH**  
Wernerstr. 119-129  
D-70435 Stuttgart, Germany  
Tel: +49 711 69971-0  
Fax: +49 711 69971-670  
Email: info-metalprint@koenig-bauer.com  
Web: www.metalprint.koenig-bauer.com



**Miotto Este spa**  
Via Talamoni, 4  
I-20861 Brugherio (MB), Italy  
Tel: +39 0392 878 284  
Fax: +39 0398 84 594  
Email: info@miottoeste.it  
Web: www.miottoeste.it



**Suzhou SLAC Precision Equipment Co, Ltd**  
**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn  
**Intercan Group Ltd**  
**EMEA**  
38 Burners Lane, Kiln Farm  
Milton Keynes, MK11 3HB  
United Kingdom  
Tel: +44 1908 566015  
Fax: +44 1908 560638  
Web: www.intercan.co.uk  
Email: sales@intercan.co.uk



**TEC Technology GmbH**  
Carl-Benz-Str.12  
D-74366 Kirchheim am Neckar, Germany  
Tel: +49 7143 9617280  
Fax: +49 7143 9617281  
E-mail: info@tec-technology.de  
Web: www.tec-technology.de



**METAL DECORATING EQUIPMENT (HOE PRINTING PRESS)**



**Perm Machine & Tool Co**  
PO Box 660, 9660 Industrial Drive  
St John, Indiana 46373, USA  
Tel: +1 219 365 5000  
Fax: +1 219 365 4847  
Email: perm@permmachine.com  
Skype: perm\_machine  
Web: www.permmachine.com

**METAL DECORATING INKS & COATINGS**



**INX International Ink Co.**  
10820 Withers Cove Park Drive  
Charlotte, NC 28278, USA  
Tel: +1 704 372 2080  
Fax: +1 704 372 2087  
Email: inxmetal@inxintl.com  
Web: www.inxinternational.com

**NECKER TOOLING**



**Belvac Production Machinery Inc**  
237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com

**WALLRAM GROUP SOLUTIONS IN HARD MATERIALS**

**LPT Lieb Precision Tool Inc**  
1819 S. Murray Blvd, Colorado Springs  
CO 80916 USA  
Tel: +1 719 355 2600  
Fax: +1 719 596 3019  
Email: sales@liebpt.com  
Web: www.liebpt.com

**WALLRAM GmbH**  
Schuermannstrasse 40, 45136 Essen  
Germany  
Tel: +49 201 89636 0  
Fax: +49 201 89636 30  
Email: sales@wallram.com  
Web: www.wallram.com

**NECKING MACHINES**



**Belvac Production Machinery Inc**  
237 Graves Mill Road  
Lynchburg, VA 24502-4203, USA  
Tel: +1 434 239 0358  
Fax: +1 434 239 1964  
Email: info@belvac.com  
Web: www.belvac.com



**CarnaudMetalbox Engineering plc**  
Dockfield Road  
Shipley, W Yorkshire BD17 7AY, UK  
Tel: +44 1274 846 200  
Fax: +44 1274 846 201  
Email: marc.hoche@eur.crowncork.com  
Web: www.cmbecanmaking.com



**Germann + Frei AG**  
Martinsbruggstrasse 92  
CH-9016 St. Gallen, Switzerland  
Tel: +41 71 282 16 40  
Fax: +41 71 282 16 50  
Email: info@germannfrei.ch  
Web: www.germannfrei.ch



**Suzhou SLAC Precision Equipment Co, Ltd**  
**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn



**STOLLE MACHINERY**  
**Stolle Machinery Company, LLC**  
6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**OVEN ALIGNMENT**



**Environmental Services & Technologies Inc**  
**Midwest Office**  
4941 41st Street Court  
Moline, IL 61265, USA  
Tel: +1 309 762 9551  
Fax: +1 309 762 9561

**West Coast Office**  
1155 South Milliken Avenue  
Ontario, CA 91761, USA  
Tel: +1 909 295 6255  
Fax: +1 909 295 5531  
Email: info@envsrv.com  
Web: www.envsrv.com



**Perm Machine & Tool Co**  
PO Box 660, 9660 Industrial Drive  
St John, Indiana 46373, USA  
Tel: +1 219 365 5000  
Fax: +1 219 365 4847  
Email: perm@permmachine.com  
Skype: perm\_machine  
Web: www.permmachine.com

**OVEN/BURNER SERVICE ENGINEERS (GAS CERTIFIED)**

**HEATING & OVEN TECHNOLOGY LTD**  
**Heating & Oven Technology**  
Cranleigh, Surrey, GU6 7JX, UK  
Tel: +44 780 3888331  
Email: enquiries@heating-and-oven-technology.co.uk  
Web: www.heating-and-oven-technology.co.uk

**OVEN LOGGERS**



**Sencon**  
**North, Central & South America**  
Sencon Incorporated  
6385 W 74th Street  
Bedford Park, IL 60638, USA  
Tel: +1 708 496 3100  
Fax: +1 708 496 3105  
Email: info@sencon.com

**Europe, Middle East, Asia, Africa, Australasia**

**Sencon (UK) Ltd**  
Pointon Way  
Stonebridge Cross Business Park  
Droitwich WR9 0LW, UK  
Tel: +44 1905 827800  
Fax: +44 1905 795876  
Email: info@sencon.co.uk

**China, Hong Kong, South East Asia**  
**Sencon (HK) Ltd**  
Unit 202, 2/F, Building 12W  
No 12 Science Park West Avenue  
Phase 3 Hong Kong Science Park  
Pak Shek Kok, NT, Hong Kong  
Tel: +852 397 33860  
Fax: +852 302 06140  
Email: info@sencon.hk  
**Web: www.sencon.com**

**OVEN SERVICES & BALANCE**



**Environmental Services & Technologies Inc**  
**Midwest Office**  
4941 41st Street Court  
Moline, IL 61265, USA  
Tel: +1 309 762 9551  
Fax: +1 309 762 9561

**West Coast Office**  
1155 South Milliken Avenue  
Ontario, CA 91761, USA  
Tel: +1 909 295 6255  
Fax: +1 909 295 5531  
Email: info@envsrv.com  
Web: www.envsrv.com



**Perm Machine & Tool Co**  
PO Box 660, 9660 Industrial Drive  
St John, Indiana 46373, USA  
Tel: +1 219 365 5000  
Fax: +1 219 365 4847  
Email: perm@permmachine.com  
Skype: perm\_machine  
Web: www.permmachine.com

**OXIDIZER PARTS & SERVICES**



**Environmental Services & Technologies Inc**  
**Midwest Office**  
4941 41st Street Court  
Moline, IL 61265, USA  
Tel: +1 309 762 9551  
Fax: +1 309 762 9561

**West Coast Office**

1155 South Milliken Avenue  
Ontario, CA 91761, USA  
Tel: +1 909 295 6255  
Fax: +1 909 295 5531  
Email: info@envsrv.com  
Web: www.envsrv.com

**PARTING MACHINES**



**Germann + Frei AG**  
Martinsbruggstrasse 92  
CH-9016 St. Gallen  
Switzerland  
Tel: +41 71 282 16 40  
Fax: +41 71 282 16 50  
Email: info@germannfrei.ch  
Web: www.germannfrei.ch

**PEELABLE MEMBRANE  
ENDS MACHINERY**



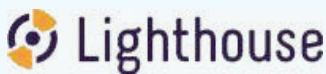
**Rainer Naroska Engineering GmbH**  
Im Hengstfeld 19  
32657 Lemgo, Germany  
Tel: +49 5261 6606 0  
Fax: +49 5261 6606 30  
Email: sales@naroska.com  
Web: www.naroska.com

**POWDER SEAM COATING  
SYSTEMS**



**Frei AG**  
Hofenstrasse 18  
CH-9300 Wittenbach  
Switzerland  
Tel: +41 71 292 3434  
Fax: +41 71 292 3400  
Email: sales@frei-ag.com  
Web: www.frei-ag.com

**QUALITY CONTROL SYSTEMS**



**Lighthouse Systems**  
UK – USA – Singapore – France – Poland  
Tel: +44 1293 605 300  
Email: info@lighthouseystems.com  
Web: www.lighthouseystems.com

**RAW MATERIALS FOR  
CAN MAKING**



**Jiangsu GuoLian New Material Co., Ltd.**  
Luoyang Industrial Zone, Wujin District,  
Changzhou, Jiangsu, P.R. China.  
Tel: +86 519 8852 1850  
Fax: +86 519 8879 0908  
Email: info@guolian-steel.com  
Web: www.guolian-steel.com

**RDR CANMAKING SYSTEMS**



**Suzhou SLAC Precision Equipment  
Co, Ltd**  
**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**REFURBISHED EQUIPMENT**



**-AMADOR VARAS SA-**  
**Amador Varas SA**  
c/Montalegre 32  
08915 Badalona, Barcelona, Spain  
Tel: +34 933 952 954  
Fax: +34 933 954 904  
Email: varas@amador-varas.com  
Web: www.amador-varas.com

**RTO THERMAL CATALYTIC  
OXIDIZER PARTS & SERVICES**



**Environmental Services &  
Technologies Inc**  
**Midwest Office**  
4941 41st Street Court  
Moline, IL 61265, USA  
Tel: +1 309 762 9551  
Fax: +1 309 762 9561  
**West Coast Office**  
1155 South Milliken Avenue  
Ontario, CA 91761, USA  
Tel: +1 909 295 6255  
Fax: +1 909 295 5531  
Email: info@envsrv.com  
Web: www.envsrv.com

**SCROLL DIES**



**Hengli CNC Technology Co, Ltd**  
265 Yixian Road, Wukang Town  
Deqing County, Zhejiang Province  
313200, China  
Tel: +86 572 8832016  
+86 572 8832000  
Fax: +86 572 8832222  
Email: sales@zjhlcnc.com  
Web: www.zjhlcnc.com

**SEALING COMPOUNDS**



**ACTEGA Artistica**  
**Headquarters:**  
P.E. A Granxa, Rua F,  
36475 Porrino, Spain.  
Tel: +34 986 231606  
Fax: +34 986 210774  
**North America:**  
1050 Taylors Lane  
Cinnaminson NJ, USA  
Tel: +1 856 735 2403  
Fax: +1 856 829 6940  
E-mail: info.ACTEGA.artistica@altana.com

**SEAMING CHUCKS & ROLLS**



**CarnaudMetalbox Engineering plc**  
Dockfield Road  
ShIPLEY, West Yorkshire BD17 7AY, UK  
Tel: +44 1274 846 200  
Fax: +44 1274 846 201  
Email: marc.hoche@eur.crowncoke.com  
Web: www.cmbcanmaking.com

**imeta**

**IMETA srl**  
Strada Burla 279A  
43122 Parma, Italy  
Tel: +39 0521 1688811  
Fax: +39 0521 1688819  
Email: info@imeta.it  
Web: www.imetasrl.com



**Montajes Conserveros de Galicia (MCG)**  
Pl. A Granxa C/Ons Parcela 107-108  
36475 O Porriño (Pontevedra), Spain  
Tel: +34 986 48 83 47  
Fax: +34 986 48 71 35  
Email: mcg@mcg.com.es  
Web: www.mcg.com.es

**SEAMING MACHINES**



**Germann + Frei AG**  
Martinsbruggstrasse 92  
CH-9016 St. Gallen, Switzerland  
Tel: +41 71 282 16 40  
Fax: +41 71 282 16 50  
Email: info@germannfrei.ch  
Web: www.germannfrei.ch

**MONTAJES CONSERVEROS DE GALICIA**



**Montajes Conserveros de Galicia (MCG)**  
Pl. A Granxa C/Ons Parcela 107-108  
36475 O Porriño (Pontevedra), Spain  
Tel: +34 986 48 83 47  
Fax: +34 986 48 71 35  
Email: mcg@mcg.com.es  
Web: www.mcg.com.es



**Sommetrade SL**  
Parque Tecnológico de Zamudio -  
Edificio 301  
48170 Zamudio (Vizcaya), Spain  
Tel: +34 94 431 8611  
Fax: +34 94 431 8200  
Email: j.vivanco@sommetrade.com  
Web: www.sommetrade.com

**SENSOR TECHNOLOGY**



**Prime Controls, Inc.**  
**World Headquarters:**  
4528 Gateway Circle  
Dayton, OH 45440-1712, USA  
Tel: +1 937 435 8659  
Fax: +1 937 435 2091  
Email: vip@primecontrols.com  
Web: www.primecontrols.com



**Sensory Analytics**  
The Sensory Building  
4413 West Market Street  
Greensboro, NC 27407, USA  
Tel: +1 336 315 6090  
Fax: +1 336 315 6030  
Email: info@specmetrix.com  
Web: www.specmetrix.com



**SHEET COATING CONTROL**

**SENCON**

**Sencon**

**North, Central & South America**

Sencon Incorporated  
6385 W 74th Street  
Bedford Park, IL 60638, USA  
Tel: +1 708 496 3100  
Fax: +1 708 496 3105  
Email: info@sencon.com

**Europe, Middle East, Asia, Africa,**

**Australasia**

Sencon (UK) Ltd  
Pointon Way, Stonebridge Cross Business  
Park, Droitwich WR9 0LW, UK  
Tel: +44 1905 827800  
Fax: +44 1905 795876  
Email: info@sencon.co.uk

**China, Hong Kong, South East Asia**

Sencon (HK) Ltd  
Unit 202, 2/F, Building 12W  
No 12 Science Park West Avenue  
Phase 3 Hong Kong Science Park  
Pak Shek Kok, NT, Hong Kong  
Tel: +852 397 33860  
Fax: +852 302 06140  
Email: info@sencon.hk  
**Web: www.sencon.com**



Technology by SENSORY ANALYTICS

**Sensory Analytics**

The Sensory Building  
4413 West Market Street  
Greensboro, NC 27407, USA  
Tel: +1 336 315 6090  
Fax: +1 336 315 6030  
Email: info@specmetrix.com  
Web: www.specmetrix.com

**SHEET FEED PRESSES**



**Rainer Naroska Engineering GmbH**

Im Hengstfeld 19  
32657 Lemgo, Germany  
Tel: +49 5261 6606 0  
Fax: +49 5261 6606 30  
Email: sales@naroska.com  
Web: www.naroska.com



新益

**Shin-I Machinery Works Co Ltd**

No 43 Chung Cheng St  
Chingshui, Taichung, Taiwan ROC  
Tel: +886 4 2623 8181  
Fax: +886 4 2623 2129  
Email: contact@shinican.com.tw  
Web: www.shinican.com

**SHEET HANDLING**



**TEC Technology GmbH**

Carl-Benz-Str.12  
D-74366 Kirchheim am Neckar, Germany  
Tel: +49 7143 9617280  
Fax: +49 7143 9617281  
E-mail: info@tec-technology.de  
Web: www.tec-technology.de

**SHEETING LINES**



**Hengli CNC Technology Co, Ltd**

265 Yixian Road, Wukang Town  
Deqing County, Zhejiang Province  
313200, China  
Tel: +86 572 8832016  
+86 572 8832000  
Fax: +86 572 8832222  
Email: sales@zjhlcnc.com  
Web: www.zjhlcnc.com

**SHELL DIES**



**Suzhou SLAC Precision Equipment Co, Ltd**

**Asia and ROW**  
1028 Sunwu Road, Wuzhong District,  
Suzhou, Jiangsu, China  
Tel: +86 512 6693 9207  
Fax: +86 512 6624 8543  
Web: www.slac.com.cn  
E-mail: slac@slac.com.cn

**SHELL SYSTEMS**



**STOLLE MACHINERY**

**Stolle Machinery Company, LLC**

6949 S. Potomac Street  
Centennial, CO 80112, USA  
Tel: +1 303 708 9044  
Fax: +1 303 708 9045  
Email: sales@stollemachinery.com  
Web: www.stollemachinery.com

**SLITTER EQUIPMENT**



**Can Man Aktiengesellschaft**

Mülisacker 221  
CH-5705 Hallwil, Switzerland  
Tel: +41 62 777 4440  
Fax: +41 62 777 4441  
Email: sales@canman.ch  
Web: www.canman.ch  
Member of SWISSCAN Network  
Web: www.swisscan.net



**Hengli CNC Technology Co, Ltd**

265 Yixian Road, Wukang Town  
Deqing County, Zhejiang Province  
313200, China  
Tel: +86 572 8832016  
+86 572 8832000  
Fax: +86 572 8832222  
Email: sales@zjhlcnc.com  
Web: www.zjhlcnc.com

**STACKER BOXES**



**TEC Technology GmbH**

Carl-Benz-Str.12  
D-74366 Kirchheim am Neckar, Germany  
Tel: +49 7143 9617280  
Fax: +49 7143 9617281  
E-mail: info@tec-technology.de  
Web: www.tec-technology.de

**THERMAL OXIDIZERS**



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C/ San Vincente 8, Planta 9  
48001 Bilbao,  
SPAIN  
Tel: +34 944 411 012 / 313  
Fax: +34 944 411 066  
Email: inghor@inghor.es  
Web: www.inghor.es

**KOENIG & BAUER**

**Koenig & Bauer MetalPrint GmbH**

Wernerstr. 119-129  
D-70435 Stuttgart, Germany  
Tel: +49 711 69971-0  
Fax: +49 711 69971-670  
Email: info-metalprint@koenig-bauer.com  
Web: www.metalprint.koenig-bauer.com

**TURNKEY CAN MAKING LINES**



ENGINEERS • FABRICATORS • CONSTRUCTORS

**Roeslein & Associates Inc**

9200 Watson Road, Suite 200  
St Louis, MO 63126-1528, USA  
Tel: +1 314 729 0055  
Fax: +1 314 729 0070  
Email: sales@roeslein.com  
Web: www.roeslein.com



**SWISSCAN Network**

Muelisacker 221  
CH-5705 Hallwil, Switzerland  
Tel: +41 62 777 44 40  
Fax: +41 62 777 44 41  
Email: box@swisscan.net  
Web: www.swisscan.net

**USED/REFURBISHED EQUIPMENT**



**Lacueva Can Making Machinery SL.**

Pol.industrial El Roturo  
Parcela 1, 26511 El Villar De Arnedo  
La Rioja, Spain  
Tel: +34 941 130918  
Fax: +34 941 135113  
Email: lacueva@maquinarialacueva.com  
Web: www.maquinarialacueva.com

**USED/REFURBISHED METAL DECORATING EQUIPMENT**



**Brodie System, Inc**

1539 West Elizabeth Ave  
Linden, NJ 07036, USA  
Tel: +1 908 862 8620  
Fax: +1 908 862 8632  
Email: tnielsen@brodiesystem.com  
Web: www.brodiesystem.com

**USED/REFURBISHED METAL DECORATING EQUIPMENT**



HEBENSTREIT METAL DECORATING

**Hebenstreit Metal Decorating GmbH**  
Gottlieb-Daimler-Strasse 15/2  
74385 Pleidelsheim, Germany  
Tel: +49 7144 88980-0  
Fax: +49 7144 88980-50  
Email: info@hebenstreit-gmbh.de  
Web: www.hebenstreit-gmbh.de

**KOENIG & BAUER**

**Koenig & Bauer MetalPrint GmbH**  
Wernerstr. 119-129  
D-70435 Stuttgart, Germany  
Tel: +49 711 69971-0  
Fax: +49 711 69971-670  
Email: info-metalprint@koenig-bauer.com  
Web: www.metalprint.koenig-bauer.com



**Miotto Este spa**  
Via Talamoni 4  
I-20861 Brugherio (MB), Italy  
Tel: +39 0392 878 284  
Fax: +39 0398 84 594  
Email: info@miottoeste.it  
Web: www.miottoeste.it



**Perm Machine & Tool Co**  
PO Box 660, 9660 Industrial Drive  
St John, Indiana 46373, USA  
Tel: +1 219 365 5000  
Fax: +1 219 365 4847  
Email: perm@permmachine.com  
Skype: perm\_machine  
Web: www.permmachine.com



**TEC Technology GmbH**  
Carl-Benz-Str.12  
D-74366 Kirchheim am Neckar  
Germany  
Tel: +49 7143 9617280  
Fax: +49 7143 9617281  
E-mail: info@tec-technology.de  
Web: www.tec-technology.de

**UV CURING EQUIPMENT**



**IST METZ GmbH**  
Lauterstrasse 14-18  
D-72622 Nuertingen  
Germany  
Tel: +49 7022 6002 0  
Fax: +49 7022 6002 76  
Email: info@ist-uv.com  
Web: www.ist-uv.com

**KOENIG & BAUER**

**Koenig & Bauer MetalPrint GmbH**  
Wernerstr. 119-129  
D-70435 Stuttgart, Germany  
Tel: +49 711 69971-0  
Fax: +49 711 69971-670  
Email: info-metalprint@koenig-bauer.com  
Web: www.metalprint.koenig-bauer.com



**Roeslein & Associates Inc**  
9200 Watson Road, Suite 200  
St Louis, MO 63126-1528, USA  
Tel: +1 314 729 0055  
Fax: +1 314 729 0070  
Email: sales@roeslein.com  
Web: www.roeslein.com

**VACUUM PUMPS & VACUUM SYSTEMS**



**Pneumofore SpA**  
Via N. Bruno 34  
10098 Rivoli, Italy  
Tel: +39 011 950 40 30  
Fax: +39 011 950 40 40  
Email: info@pneumofore.com  
Web: www.pneumofore.com

**WAGNER COATER PARTS**



**Perm Machine & Tool Co**  
PO Box 660, 9660 Industrial Drive  
St John, Indiana 46373, USA  
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**Craft Brewers Conference**

Date: 19 - 22 April  
Location: San Antonio, TX  
Web: craftbrewersconference.com



**BAMA Innovation Day**

Date: 22 April  
Location: Leeds, UK  
Web: bama.co.uk



**MAY 2020**

**Metpack**

Date: 5 - 9 May  
Location: Germany  
Web: www.metpack.de

**Interpack**

Date: 7 - 13 May  
Location: Germany  
Web: www.interpack.com



**The International Metal Decorating and Packaging Association Conference**

Date 20 - 21 May  
Location: Chicago, US  
Web: metaldecorators.org

**Empack**

Date: 26 May 2020  
Location: Brussels, Belgium  
Web: empack.be



**SEPTEMBER 2020**

**PPMA**

Date: 29 September - 1 October  
Location: Birmingham, UK  
Web: ppma.co.uk



**OCTOBER 2020**

**Sustainable Packaging Summit**

Date: 15 - 16 October  
Location: Lisbon, Portugal  
Web: packagingeurope.com

**NOVEMBER 2020**

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Date: 9 - 11 November  
Location: Ho Chi Minh City, Vietnam  
Web: www.asia-can.com



**BrauBeviale**

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# THE CAN MAN

A sideways look at the world of can making

## How much do we really care?

I've heard a lot about how people within this industry really care about what they do – for many it's more than a job. But is that really the case?

For many in the metal packaging industry I'm sure that's the case, but let's not kid ourselves, for the majority, business is business and passion extends to who pays the cheque at the end of the month. This also extends to the trade rags. I've seen many trade publications for various industries over the years state their duty of care for helping growing a particular industry, but at the same time having another publication promoting an industry that directly conflicts with another. It's a livelihood after all, but the faux-promotion can be really quite nauseating.

But it's the same on the can making supplier and manufacturer side. We all know the main reason why the industry's PR mechanism can appear stifled – it's all one big conflict of interest for many within the industry.

However, ultimately we're all in business for money. I'm a sceptic I know! The fact is the industry is beginning to gain momentum and has prime conditions

for growth. This means we all need to ride the wave of positivity and do our utmost not to compete with each other, but by promoting metal, even at the expense of other packaging formats. There's real potential to see wholesale change globally and to firmly put metal on the map as the go to packaging format, but it requires less fence sitting by some key players within the industry.

I'm writing this entry on the way back from a successful *CanTech The Grand Tour* show in India. Even though the deluge of activity that has been threatening to break through is not quite materialising in the country, one thing you can't knock is the enthusiasm from the locals to try and get things moving.

Ultimately, it seems that packaging habits boil down to cost, and that is something we as an industry are going to have to navigate. I don't necessarily subscribe like some that we should be mainly



focusing on the 'premium' packaging concepts. If we can do something to negate potential price constraints in developing areas of the world, then the world really is our oyster. With the Indian public buying in bulk, we can lead the way, particularly with such a strong message.

As we now truly enter show season, it's time for a rest before we go again. Safe travels to all. ☐

In future articles The Can Man will discuss other subjects that relate to the can making industry. Please feel free to send your ideas for future investigation or feedback to: [canman@bellpublishing.com](mailto:canman@bellpublishing.com).

All comments and opinions expressed in this or any future article will not be attributed to any individual or organisation and should be considered a sideways and occasionally humorous view of the industry.

An advertisement for Versatile Technology. The background is dark blue with technical drawings and circuitry. On the left, a glowing wireframe of a machine is shown, with the text 'TK0651 - AUTOMATIC OPENABILITY GAUGE' written vertically next to it. In the center, the text 'I FOR ICONIC' is written in large, glowing letters, with 'METPACK 2020 - ALL WILL BE REVEALED' below it. At the bottom left is the Versatile Technology logo and website address: 'www.versatiletechnology.com.au'. At the bottom center is the METPACK 2020 logo and booth information: 'HALL 3 BOOTH 3D60 MAY 5-9, 2020'. At the bottom right are the logos for 'METPACK 2020' and '30 YEARS'.



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