

# INDUSTRY UPDATE

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## Inside this Issue



### ElectroCraft

Electronics Update

See them on page..... 5



### Anpario

UK Dairy Day Review Top 10

See them on page..... 8



### Cap Coder

Packaging Company of the Year

See them on pages.....12-13



### Vision Engineering

Manufacturing Update

See them on page.....20

## Contents

- 2-3** Editor Recommends
- 4-5** Electronics Update
- 7** Outstanding Achievement Award
- 8** UK Dairy Day Review Top 10
- 10-11** CHEMUK 2019 Review Top 10
- 12-13** Packaging Company of the Year
- 14-15** Handling, Storage & Logistics Update
- 19-21** Manufacturing Update

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## Automate your dairy with ECR-S & ECR Plus

Industry Update has selected Waikato Milking Systems as one of our top exhibitors at this year's UK Dairy Day. Waikato Milking Systems has a new range of Automatic Cup Removers that can help automate your parlour, reduce labour and future-proof your dairy operation.

The ECR-S and ECR Plus are high performing ACR/Detachers that work at the heart of your parlour's milking automation system. Both can be easily fitted into your existing parlour, breathing new life into your old milking system, or be options for any new parlour installation.

The ECR-S is suitable for all milking machines. In a rotary parlour it can control the BailGates to retain cows for alerts or longer milking times. It can also control SmartSPRAY, for automated teat spraying of your



cows. The ECR Plus has all the features of the ECR-S plus more, including Plug 'n' Play technology which allows the operator to add milking automation options incrementally, when the budget suits.



You can add the SmartDTECT Pulsator to measure the conductivity of each quarter; Electronic Milk Meters for flow rate and volume; BailGate control for cow retention or Bail Display for status updates and alerts.

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## STAND OUT FROM THE CROWD WITH ENGEL 'SAFETY'



No matter what the job, if it involves working out in the open, day or night or whatever the weather, it's important to be easily seen. Engel Workwear offers a comprehensive collection of water and wind resistant, high-visibility, protective outer-clothing which caters for almost every work situation helping wearers to keep both safe and comfortable whatever the circumstances.

Made from fluorescent Polyester or Polyester and cotton mix suitable for industrial laundering and all fully complying with European and International safety and protection standards, the Engel 'Safety' range consists of jackets, trousers, bib-overalls, boiler suits, safety vests, sweat shirts and for the warmer months, T shirts and shorts. But to be prepared for colder snaps, especially whilst working during the night, the COMBINE shell jackets with an inner zip-up layer give added warmth.

Available in all sizes with many of the items specifically designed to be especially comfortable for women, the Engel Workwear 'SAFETY' collection is available predominantly in fluorescent orange or yellow with 'LOXY' reflector bands for maximum visibility.

For more details, visit: [www.engel.eu/en](http://www.engel.eu/en) or contact Gareth Bladen at: [gbl@f-engel.com](mailto:gbl@f-engel.com) or call +44 (0)7759 520034.

## Denso Paste & 80mm Tape control Brunel Bridge corrosion

In the Kingdom Brunel's Swing Bridge was constructed of riveted wrought iron plates in 1849 to provide a crossing over the entrance lock for growing vehicular activity in Bristol Docks. It is a rare survivor of Brunel's Bristol work and predates the Clifton Suspension Bridge.



To hold back corrosion in the early days, linseed oil and resin based paint coatings were regularly applied, but after 50 years of neglect the Grade 2 Listed structure has rusted seriously.

In the Bridge's one hundred and seventieth year, the volunteers of the Avon Industrial Buildings Trust have turned to Winn & Coales (Denso) Ltd for a well tried protective system to help preserve important parts for the future. The structure weighs almost 70 tonnes and is supported by a turntable ring running on just four wheels.

Denso paste has been applied to the underside of the ancient bridge's 4m dia forged iron ring to seal against water entering the deep rust-pits. Then the 3mm thick soft aluminium packers were wrapped with Denso Tape, bedded on to the new 20mm thick steel ring.

This was then jacked up to bed on the underside of the old heavily-corroded ring to provide a new track for the bridge to run on. Geoff Wallis, the Avon Industrial Building Trust's project manager, said, "We chose Denso products because we know of their proven performance, and believed they will serve the Bridge well for years to come."

T 020 8670 7511  
[mail@denso.net](mailto:mail@denso.net)  
[www.denso.net](http://www.denso.net)

## Ultimate washroom style in three easy steps



Dudley Industries launches a new modular 'Behind the Mirror' hand hygiene solution to their global washroom offering. Modulo is a new cabinet system that provides a flexible and easy to install solution for stylish washrooms. With space so often at a premium in washrooms careful consideration must be given to every detail. Modulo is a convenient solution that provides a choice of hand washing and drying options housed in a cabinet cleverly concealed behind a mirror.

### Specified in 3 simple steps

- ▼ Choose the cabinet size
- ▼ Select the dispenser combination
- ▼ Choose the door type to complete

### the selection

Unlike traditional cabinets the Modulo system provides a range of dispenser locations so that each one can be ideally positioned exactly where you need it. The simplicity of installation makes the mounting of a Modulo cabinet easy and by choosing a combination of the manual and battery operated dispensers removes the need to connect to mains power making it suitable for all locations and washrooms.

The cabinets are available in widths of 600mm and 1,200mm and customers can choose their

### dispenser combination from:

- ▼ Soap Dispenser
- ▼ Paper Towel Dispenser
- ▼ The new AutoCut Paper Towel Dispenser
- ▼ Hand Dyer

Cabinet doors are available as a traditional mirror finish but for the more inquisitive an innovative tinted glass option is available which stylishly reveals the dispensers through the glass.

### Contact

T +44 (0)1253 738311  
[www.dudleyindustries.com](http://www.dudleyindustries.com)  
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## Dublin's new Central Plaza conversion uses Denso protection

The old Central Bank Building in Dame Street, Dublin, is currently being redeveloped and will reopen as the Central Plaza consisting of offices, conference space, shops and restaurants. Winn & Coales (Denso) Ltd is supplying protection coatings for major structural sections and also an outer wrap prior to fire protection.

The building was originally constructed in the 1970s and the design was based on suspending each floor from two concrete core tower pillars. Each floor level

was then constructed at ground level and hoisted into place and then supported by Macalloy bars. The bars were protected at the time with petrolatum tape.

DBFL Structural Engineers, in discussion with Winn & Coales, decided to remove the existing wrap and apply Denso Tape to 2,500m of 40mm Macalloy bars, thus providing long term corrosion protection. Denso Self-Applied PVC was then used as an outer wrap before fire protection and cladding was applied.



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## SeaShield 80 protects marine-side rising main

On a recent Yorkshire Water contract, JN Bentley Ltd of Skipton was faced with the complexity of replacing approximately 25m of a 350mm diameter rising main pipe at Whitby, Yorkshire, which was situated within a shaft.



To make things more complicated, there was very limited space in the shaft, which was subject to tidal flooding with sea water. Not surprisingly, it was also classed as a confined space.

JN Bentley therefore employed PMP Utilities Ltd of Burnley to install the rising main after using Winn & Coales (Denso) Ltd's SeaShield 80 system to provide protection from the sea water. To make the installation easier, the SeaShield 80 was applied to the barrel lengths of the pipe prior to lifting the 25m long pipe into place. PMP Utilities then applied the system to the bolted flanges in-situ.

SeaShield 80 System comprises Denso S105 Paste, Denso Marine Piling Tape, Densoclad Tape and Denso SeaShield Smart Band. Densyl Mastic was also used to profile the joints.

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## Digital Edge Subsea releasing all new DVR model now with 4K



Digital Edge Subsea's EdgeDVR-1HD-4SD is the company's top of the range model for digital video recording. Primarily for use in the offshore oil and gas subsea and windfarm markets, the model is generally used for daily ROV operations, both eyeball and work class or diving.

In 2019, the company has been developing the next generation of the model, due for release soon. The new Version 5 software and hardware will maintain the original mandate of being easy and simple to use with unbeatable reliability, but will now have three levels: EdgeLite, Edge, and EdgePro.

Version 5 of the EdgeDVR will provide the same capabilities as the current Version 4 but with the added advantage of being able to record four channels of HD simultaneously.

In regards to hardware, Version 5 will have three main types: Standard Definition, High Definition and Digital Edge Subsea's first ever 4K system. This addition of a 4K (UHD) model is a reflection of the latest technology now being used on some of the latest ROV and diving systems worldwide.

Digital Edge Subsea will also offer a laptop version, with a total storage capacity of 3TB and an external 2TB SSD drive, which stores the survey data. The Windows 10 operating system is stored on a 2 x solid state hard drive (Raid) for increased speed and reliability.

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## Problem solved: Discontinued passives & long lead times with current components

To help engineers and buyers in the Electronic Components Industry with End-of-Life (EoL) issues and today's long lead times for current products, BEC Distribution has announced the availability of direct alternatives to TOKO/Murata, Coilcraft, Vishay and Sumida lines, with short lead times of 6-8 weeks, where most manufacturers are currently working on 16-30 weeks.

BEC's range of EoL replacements and pin-for-pin replacements for current passives include: shielded power inductors, multi-layer ceramic chip inductors, radial peaking coils, open wire-wound chip inductors and thin-film chip inductors.

Typically, large component manufacturers discontinue product lines after 5-10 years. This can have a potentially disastrous impact on customers whose products have longer expected lifetime, eg. aerospace, medical, surveillance or defence industry equipment. The availability of BEC's component replacements will far exceed 10 years.

BEC Distribution's EoL component supplies will be a lifeline to R&D engineers and buyers, where components have been designed into their product lines. With a stock of 15m passive components and franchised distribution agreements with quality alternative component manufacturers, BEC can provide high quality, pin-for-pin direct replacement or alternatives. If the required components are not in stock, then BEC will track down and source matching alternatives, ensuring that EoL issues will



not hinder customers' projects.

With support from BEC, engineers and buyers alike can plan ahead right from the beginning when components are first used or when they are designed-in, ensuring that EoL does not necessarily mean end of supply or support.

BEC Distribution offers drop-in alternates for most manufacturers including Toko, Sumida, Murata, TDK, Coilcraft, Cooper, Bourns, Vishay, Würth, etc.

**For stock availability, pricing or free samples please contact BEC's sales office:**

**T 0845 4900 405  
sales@bec.co.uk**

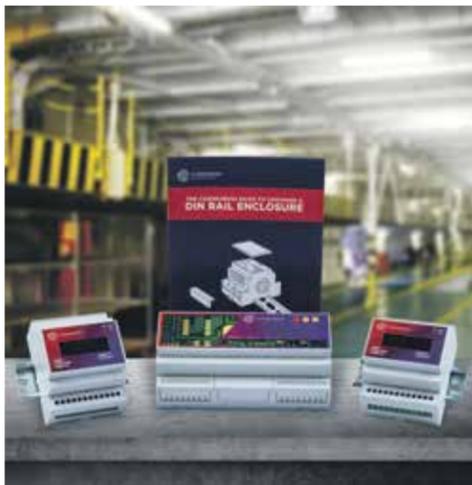
## CamdenBoss' CNMB modular DIN Rail enclosure: Create your CNMB, your way

The CNMB DIN Rail enclosure range provides a selection of modular housings which are available in eight lengths. The combination of modular ingenuity and adaptability enables this enclosure to succeed in almost any application. Ideal for OEMs designing electronics systems for applications such as drive and controls, home automation, HVAC, smart factory controls and energy management.

Utilising a wealth of features and benefits, the CNMB's modular design and snap-fit kitting capability allows users to choose piece parts to suit their exact requirements, this could be by selecting a vented version for air flow, with 5.08mm pitched terminal guards and a clear top; it's up to you how you want your CNMB to function! Alternatively, you can select from a number of pre-kitted options.

**For a step by step guide on choosing your CNMB enclosure, visit: [www.camdenboss.com/cnmb\\_IU](http://www.camdenboss.com/cnmb_IU)**

**You can also call our sales team on 01638 716101 who are on hand to provide you more advice on choosing the perfect CNMB for your project.**



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## New, OLED display with USB, SPI, I<sup>2</sup>C and PCAP touch

MMS Electronics Ltd introduced two new intelligent graphic OLED display with PCAP touch, USB port, SPI and I<sup>2</sup>C interface. Two screen sizes are available: EA PLUGL128-6 2.9" diagonal 128x64 and EA PLUGS102-6 1.7" diagonal 102x64 pixel.

The display is easily programmed with powerful graphic commands and 8 integrated character sets. New fonts can be added with the free development software. Fonts can be scaled, rotated and accurately positioned. Fonts, 256 images, animations or macros can be saved on-board the display. Text can be rotated for the display to be used in landscape or portrait mode.

The OLED display technology is extremely fast, offers high contrast on a pure black background with nearly 180° wide viewing angle. Supply from the USB port or with a 3.3V to 5V. 8 digital I/O, 1 analogue output and 2 analogue inputs are available for the application. Includes speaker for audio feedback. A version with a 12 pin screw connector for easy connection of sensors and I/O is also available.



MMS Electronics Ltd in Leeds is a specialist supplier of LCD, OLED and TFT displays and UK distributor for Electronic Assembly GmbH. Call us to discuss your application.

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www.mmselectronics.co.uk**

## Shield clamp according to PROFINET installation guidelines

icotek introduces new shield clamp LF2Z-M | MSKL

The new LF2ZM from icotek has a double strain relief and complies with the PROFINET installation guidelines.

Using icotek shield clamps, the strain relief is carried out via the cable jacket and not via the sensitive and exposed shield braid. The PROFINET cable is fixed before and after the shielding to ensure protection against bending and kinking. This is especially important when the cable is exposed to movement.

Constant pressure on the cable screen eliminates the need to readjust the spring pressure. The shield clamp is vibration-proof and maintenance-free. The LF2Z-M | MSKL is offered with a M4 connection. For mounting purposes, the screws connected to the ground potential are used.

Due to their special geometry, the clamping areas of the shield clamp are very large. With a total length of 51mm, the LF2Z-M | MSKL requires very little space and can be used flexibly. The slim and space-saving design is retained even when fully equipped. The width and



height are comparatively low (eg. LF2ZM | MSKL 3-12 with 12mm cable shield inserted: width 26.25mm). The LF2ZM is available for screen diameters of 3-12 or 8-18mm.

Further mounting variants are available.

The LF2ZM is available now. Free samples are available directly from the manufacturer.

**www.icotek.com/en/profinet**

## Spectrum's first 48-channel AWGs solve the cost problem of signal generators

Designed for engineers and scientists that need to simultaneously generate multiple electronic test signals, Spectrum Instrumentation's latest line of Arbitrary Waveform Generators offers 24 to 48 synchronous channels in a single rack-unit with a very economic cost-per-channel relationship. Ideal for multi-channel automated testing applications, the eight different variants achieve full remote control through a simple Ethernet connection to any PC or local area network (LAN), making them easy to integrate into almost any test system. The units feature state-of-the-art 16 bit digital-to-analogue converter technology and combine this with low-noise flexible outputs, allowing them to



generate almost any test signal in the DC to 60 MHz frequency range.

Spectrum's new DN6.65x series of generatorNETBOX instruments are available with

24, 32, 40 or 48 fully synchronous channels, complementing the recently introduced and smaller DN2.65x products (that offer from 4 to 16 channels). Such a high channel count sets a new standard for AWGs (most conventional products only offer 1, 2 or 4 channels), while also delivering a very advantageous price per channel. Furthermore, setting up, programming and controlling a single instrument is much simpler than trying to operate a number of individual AWG instruments.

**More about Spectrum can be found at: [www.spectrum-instrumentation.com](http://www.spectrum-instrumentation.com)**

## Revolutionary maintenance-free fibre optic interconnects

Diamond SA is excited to announce our new Expanded Beam (XB) lensed ferrule interconnect series to further strengthen our wide range of existing products. This revolutionary lensed ferrule technology ensures reliable and maintenance-free optical connections with insensitivity to dirt & debris.

The fast-growing deployment of optical fibre in industrial, avionic, military and transportation applications are leading to the increasing use of optical connectors providing low insertion loss, ease-of-use and, more important, serviceability. Connector contaminants are

the leading cause of power loss and signal degradation, often requiring the continuous need for cleaning.

For this reason, Diamond has developed a modular, single-mode lensed ferrule that is certain to minimise or combat these factors. The XB2 ferrule has a compact form-factor that is designed to fit our standard connector bodies (ie. E-2000™, MPO, MIL-38999, etc). The use of exceedingly precise components and unique assembly techniques results in a highly repeatable, low insertion loss ferrule that opens new perspectives in the context



of optical connections, where mating-cycles, dust insensitivity, reliability and low losses are required.

Diamond will be presenting the new XB series at the Photonics West 2020 exhibition in San Francisco.

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# ElectroCraft: Powering innovation



**E**lectroCraft is owned by DMI Technology and has been manufacturing electric motor products for over 100 years, bringing unrivalled experience and expertise to the industry. With its headquarters in Stratham, New Hampshire, ElectroCraft operates internationally, with manufacturing facilities in North America, China and the UK.

Committed to adding value to an extensive range of markets, ElectroCraft works with OEM customers who are unsatisfied with having to design around inflexible off-the-shelf products, using unparalleled technical knowledge to manufacture first-class products. Its customisable product families provide

said Scott. "Some of our more interesting, challenging and successful motion control projects have recently been in the areas of medical and scientific equipment, HVAC applications, mobility and mobile platforms, agriculture, industrial machinery, and transportation markets." Indeed, for the medical sector, ElectroCraft offers mobility solutions including motorised wheelchairs and sophisticated automated medical equipment, ensuring every solution is designed for each specific application.

The company's extensive product range features application-engineered speciality fractional-horsepower motor and motion control products, providing power critical components for some of the world's most



a design experience which results in motor and motion systems that deliver superior reliability and performance at the lowest possible cost. "ElectroCraft was formed to build custom motion solutions for our OEM customers," explained Scott Sizemore, Director of Commercial Marketing. "This provides innovation for a better and safer life for current and future generations."

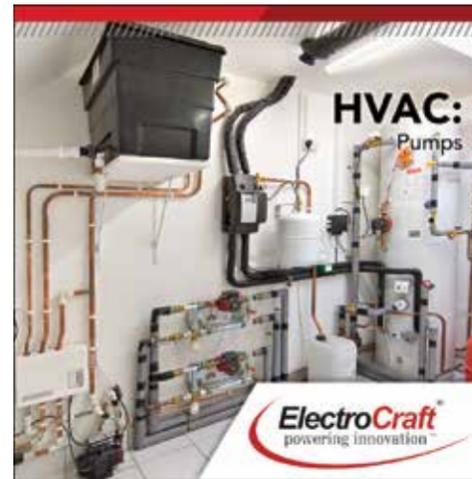
"We service a wide range of markets,"

innovative products in an extensive range of applications. With a firm foundation of experience and comprehensive knowledge, ElectroCraft provides advanced precision solutions with the highest reliability. Indeed, these accolades ensure the company is well trusted by both the largest brands and the newest cutting edge companies, cementing its status as an industry leader.

We also asked Scott about some of

ElectroCraft's most notable products. "The RPX and LRPX BLDC motor and gearmotor line-up is formidable and innovative! It has high torque density and a small form factor. This means it is small and powerful. The geared LRPX versions also feature a unique integrated gearbox that allow for maximum torque from a BLDC motor at peak efficiency."

Indeed, the RPX range includes highly dynamic and controllable very small frame metric motors. It features an advanced 8-pole encapsulated core, and this compact DC motor also offers high torque density at a highly affordable price. The range consists of 12V, 24V

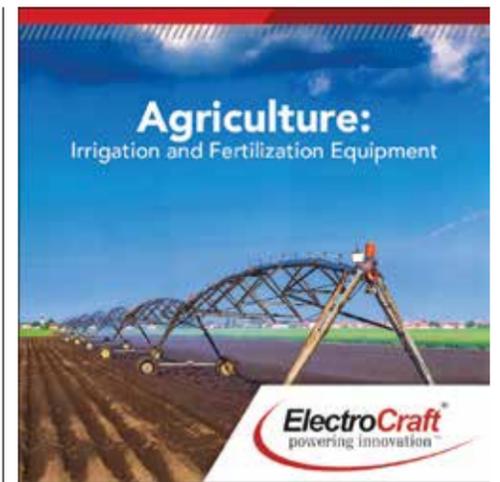


and 48V versions, and is fully customisable, like all of ElectroCraft's products. Remaining highly versatile and energy efficient, the motor is ideal for embedded applications, and all versions include hall sensor feedback and can be configured with an optional encoder.

The LRPX range consists of exquisitely efficient small form factor BLDC motors, offering peak operating efficiency at traditional RPM ranges and allowing custom integration with a planetary gearbox. It offers high torque from a small form factor, with low power consumption and peak performance at a lower RPM to allow for quiet operation.

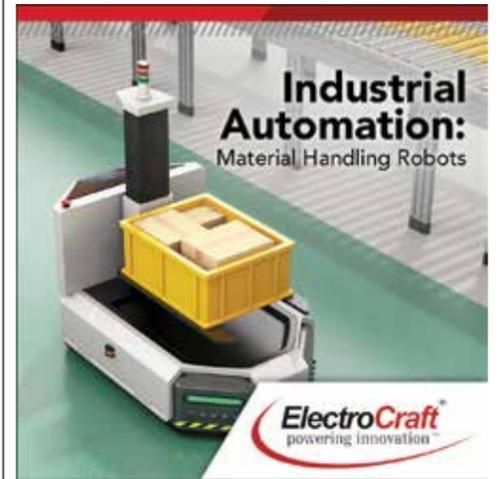
Indeed, traditional BLDC motors have peak performance at very high RPMs, speeds which are too high to make efficient use of a gearbox. The LRPX integrates the RPX series motor with a custom planetary gearbox, resulting in a small form factor BLDC motor than can produce high torque at a low RPM.

"The ElectroCraft MobilePower™ products are also an exciting area of growth as they are the motion foundation for a wide range of mobility solutions including AGV, AMR, Medical Mobility solutions, and more." Certainly, ElectroCraft's MobilePower™ gearmotors offer an integrated



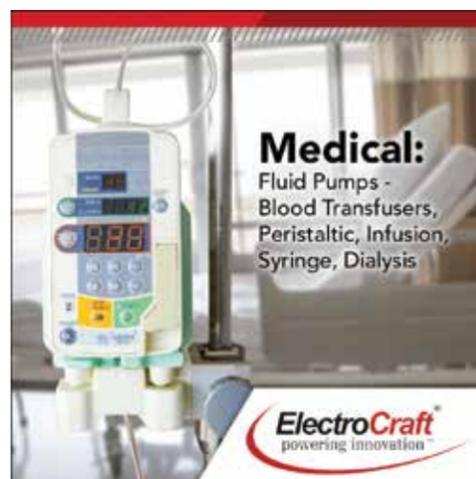
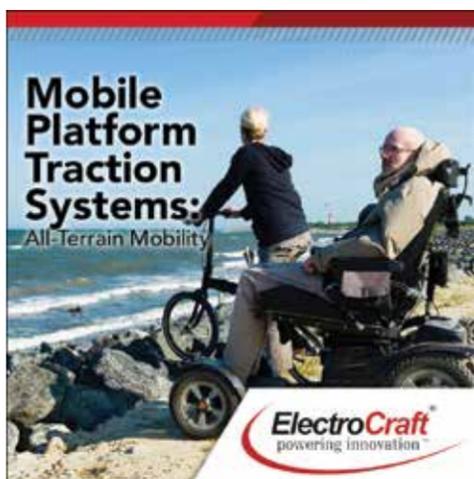
design, providing increased performance and reliability at an affordable price. These are also entirely customisable to meet any specific application requirements.

"We continue to get better as we remember that we are in business to power innovation and give customers control over their design, we find ourselves better equipped to provide solutions needed in emerging markets. As we look to the future, we will continue to invest in design, manufacturing, and continual operational improvement."



Undoubtedly, ElectroCraft has an admirable array of products, with manufacturing capabilities which are fortified by over 100 years of experience and highly skilled staff. This impressive offering will only serve to solidify the company's already enviable reputation in the industry. If you would like to find out more information on ElectroCraft's full range of products and services, head to the website or get in touch using the contact details below.

**Contact**  
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**F +1 (603) 742 9080**  
**sales@electrocrafter.com**  
**www.electrocrafter.com**



## Robotic piece-picking solution

Element Logic launched a robotic piece-picking solution at IMHX 2019.

The robotic piece-picking solution combines award-winning technology from RightHand Robotics with Element Logic software and AutoStore. The solution integrates with any warehouse management software or enterprise resource planning system, helping customers to decrease operational costs and boost overall profit.

RHR's technology excels at the 3Rs of robotic piece-picking: range, rate, and reliability. The technology is able to pick and place a wide range of items, fulfilling orders at high speeds, while ensuring customers consistently receive what they ordered.

The system uses vision, machine learning, and an advanced multi-function gripper with gripping fingers and a suction cup that can be used independently or in tandem with humans at the



same picking station for maximum flexibility.

M 07827 851066

## What sets Sensear Headsets apart?

Sensear takes noise cancellation to a whole new level. By isolating and enhancing speech while reducing harmful background noise, users can hear speech and stay protected whilst remaining aware of their surroundings in high noise environments.

In the past, Noise Cancelling headsets have set the standard for suppressing unwanted ambient noise using a technology called Active Noise Control (ANC). Most people associate Noise Cancelling headsets with those used by consumers on airplanes or other noisy



environments to reduce the ambient

noise so they can listen to music or sleep quietly.

Active Noise Control technology has been adopted by a number of hearing protection products BUT there is an inherent flaw in its application in high noise environments where hearing protection is required. Active Noise Control may reduce noise but it reduces the user's ability to hear speech and remain aware of their surroundings.

T 01457 239301  
www.exloc.co.uk

## KNEE AND BODY PROTECTION FROM REDBACKS CUSHIONING

Redbacks Cushioning Limited, developers of the award winning, 'Leaf-Spring' cushioning technology offers a range of products to help protect the knees and body from damage caused by kneeling.

The Redbacks Pocket Kneepad, specifically designed to fit work trousers, features a flexible leaf-spring held within a thermoplastic honeycomb matrix which unlike foam or gel ensures a high compression rate and 100% recovery to its original shape.

This combination and the inherent 'memory' aspect gives unique controlled weight distribution; the deceleration of

pressure protects both the knees and body from potentially damaging impact forces and gives long lasting, anti-fatigue support; traditional foam or gel solutions create point-pressure which focus the force or energy to a point which is then transmitted back into the knee joint and beyond.

Easy to slide in and curved to fit comfortably around the knee, the water-resistant pads which conform to CE EN14404 Type 2 Level 1 help to protect against possible injury from sharp objects, wick away sweat and provide thermal protection from warm or cold surfaces; they are machine washable at 30°C and 100% recyclable.



For more information, visit:  
www.redbackscushioning.com or  
email: sales@redbackscushioning.com  
or telephone 01327 702104.

## Anti-fatigue mats help to protect your workforce

Standing at work for long periods can put excessive pressure on muscles and joints, leading to back and joint pain, muscle tension and problems with circulation.

Leading mat manufacturer Kleen-Tex has created a range of anti-fatigue mats which can help reduce the pressure of standing on hard floors for long periods.

From multi-purpose rubber foam cushioning mats to soft nylon surface mats for extra comfort under foot, there is a mat to suit any workstation.

"Our mats can be used in the toughest industrial environments and are great work horses, but we can also cater for those who need to consider the aesthetic appearance of their premises," said Commercial Director, Nick Coward.

It's also possible to incorporate a strong brand or health



and safety message into many Kleen-Tex ranges, making them extremely versatile for use throughout a building, from greasy workshops to smart offices.

Check out the latest range of products at:  
www.kleen-tex.co.uk/products/anti-fatigue

## STAR1M: An innovative solution for standalone access control

Standalone access control systems allow access to many different buildings, including offices, apartments, schools... It is a cost-effective solution where controlled secure access is required. Standalone systems are designed to be easily installed, only needing a power supply, locking device and exit device to ensure its full operation. They are also quickly configured thanks to function cards to add and delete users. It offers flexibility and variety of access options for users, such as tag, card or code. Most standalone systems are highly scalable, allowing users to upgrade their systems as their needs grow.

However, standalone systems are often overlooked as they do not allow for user management and offer a lesser security standard (most standalone access control systems in the UK market are proximity systems, using 125kHz technology).

With those limitations in mind, CDVI developed and designed the STAR1M, an innovative solution for standalone access control, reinforcing the advantages of a regular standalone system while adding features to resolve some of the general drawbacks.

The STAR1M is a cost-effective and stylish standalone



reader. It is easy to mount and being pre-wired easy to connect, while offering an audible and visual feedback when configuration and administration task are carried out in programming mode.

Most importantly, the STAR1M operates under the MIFARE® standard (13.56Mhz). MIFARE® technology is a read-write technology and is generally more secure than standard proximity.

Find out more about the STAR1M here:  
www.cdvi.co.uk/catalogue/mifare-readers/star1m

T 01628 531300  
sales@cdvi.co.uk  
www.cdvi.co.uk

## New range of stations ensures PPE is easily accessible

Personal protective equipment (PPE) ensures the safety of employees and visitors in a working environment and is a requirement by law. Employers must make sure that PPE is fit for purpose with inspections before use; it is maintained and stored properly; and it is used correctly by employees and visitors.



SafetySigns4Less has created a new range of low-cost, high-quality PPE stations, ideal for use in offices, warehouses and construction sites. The range has been designed with the most popular PPE products in mind, such as helmets, goggles and hi-vis workwear. Simple to install on walls or temporary fencing with a fixing kit and predrilled holes, the stations make PPE clearly visible and allow easy hanging after use.

PPE Safety and Hi-Vis stations feature a write-on panel allowing ownership of each hook. There is also a visitor's station available, making it easy for visitors to see at a glance exactly what PPE is required in any given area, thus limiting risk and time spent by other employees finding the correct items.

To find out more and place your order today, visit:  
www.SafetySigns4Less.co.uk or call 0808 1699 147.

## Signs you need at prices you want

Save up to 77% against our competitors



<b>Fire Exit Signs</b>  Our price £2.00 Their price £8.51 <b>SAVE 76%</b>	<b>Fire Door Signs</b>   Our price 55p Their price £2.42 <b>SAVE 77%</b>
<b>Smoking Signs</b>   Our price £2.00 Their price £5.26 <b>SAVE 62%</b>	<b>Warning Signs</b>   Our price £3.40 Their price £7.70 <b>SAVE 56%</b>

Order online at [SafetySigns4Less.co.uk](http://SafetySigns4Less.co.uk)

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Visit: [SafetySigns4Less.co.uk](http://SafetySigns4Less.co.uk)

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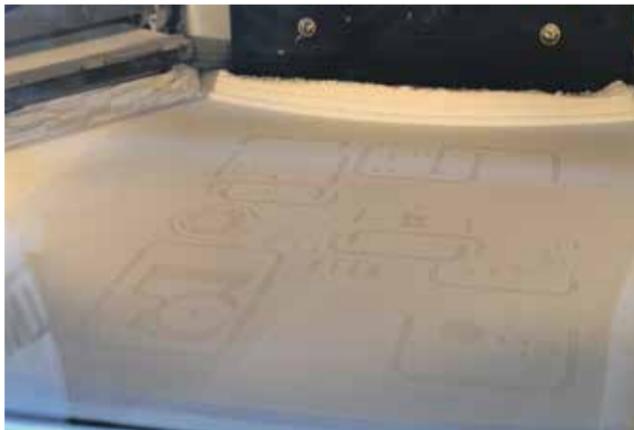
<b>Next Day Delivery</b> On in stock items ordered by 4:30pm	<b>Free Delivery</b> On all UK mainland orders over £25	<b>ISO 7010 compliant</b> Signage as low as 30p	<b>Create custom signs</b> In seconds from £3.15
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Prices and savings correct as of 02/10/19

# Additive manufacturing specialists cement industry-leading status



Aqua Power Technologies



Brushtec

Here at Industry Update, we like to showcase companies which are striving to offer the highest quality of services to their customers, adding true value to their industry. For this reason, we are proud to announce that 3DPRINTUK has been chosen to receive our Outstanding Achievement Award, a company which has realised extraordinary triumphs in the 3D printing industry over the past eight years. Since its inception, 3DPRINTUK has grown to become one of the UK's leading providers of additive manufacturing for low volume production runs and one off prototype production, working with an extensive range of companies across the country.

Based in Bow, London, 3DPRINTUK specialises in high quality SLS prints of 3D models which are produced at highly competitive prices. This is complemented by a friendly and helpful team which is ready to help its customers in getting the best out of their models, whatever they may be. Indeed, the company is dedicated to building meaningful relationships with its customers based on trust, efficiency and integrity, something which has allowed 3DPRINTUK's client base to expand to now include over 2,500 companies, with further growth on the horizon.



In response to this, 3DPRINTUK's main focus is in low volume production, bridging the gap between prototyping and injection moulding. If tooling costs are expensive for a product, or if a company doesn't require the volume which is demanded by injection moulding, 3DPRINTUK can help. The company offers clients a high quality service which incorporates a quick turnaround, identical and accurate models, and polishing for a smoother finish.

By using Selective Laser Sintering (SLS) machines, the company offers its unparalleled low volume and batch production runs, producing anything between a handful to an entire portfolio of parts. This service is pertinent to numerous sectors, whether this is for the production of technology, engineering parts, models, and many more. Indeed, the components created in this manner are often of superior functionality and resolution in comparison to those created using traditional resin printers. Despite being a relatively new company, 3DPRINTUK has produced over one million 3D parts using its SLS technology. Furthermore, with a mission to ensure each of its numerous clients gets their parts exactly as intended, all of 3DPRINTUK's printers are recalibrated once a week and all printed components are visually checked before they are dispatched.

We had the pleasure of speaking to Nick, who told us about some of 3DPRINTUK's successes over the last year and gave us a taste of the company's anticipated future plans.



"The last 12 months have seen huge amounts of expansion for us," explained Nick. "We've achieved

nearly 50% growth on last year, and we've increased our numbers of production items and runs to continue to provide our customers with the excellent service they have come to expect from us."



Indeed, due to unwavering customer demand, 3DPRINTUK is about to move to a brand new office which is seven times the size of its current premises. "We're known for offering just one material, and this new office will allow us to offer more materials, finishes, and processes so we can continue to meet our customers' needs. Our client base is huge, and in our current offices we don't have the space to accommodate their developing needs, so this move is very exciting for us."

Indeed, 3DPRINTUK understands the ever-changing needs of its customers, and this expansion is just one of the ways it is working to accommodate them. "We're about to launch a new order management system, which will allow for complete transparency, meaning our customers can see where every part of their order is. Also, they will be able to access their order history online, meaning they can place orders whenever they want in a more efficient way. Finally, we will also be offering trade accounts for a wider range of companies. At the moment, we can only offer them to customers who spend over a certain amount, but we will be reducing this limit to make our trade accounts more accessible."

With an exceptional eight years behind it, packed with unprecedented success and growth, 3DPRINTUK has a firm foundation on which it can build, progress and achieve as it looks to the future. If you would like to find out more information on the company's full range of services, head to the website. Alternatively, get in touch using the contact details below.

T 0208 692 5208  
www.3dprint-uk.co.uk



Managing Director, Nick Allen, a highly trained product designer and engineer with years of valuable industry experience, established the company in 2011 in order to bring a trustworthy and friendly face to 3D printing. Indeed, Nick was inspired after he noticed a gap in the market for 3D plastic production without the need for CNC milling or expensive injection moulding. Generally, injection moulding can be expensive due to mandatory tooling costs, which results in both SMEs and multinational corporations turning to cheaper alternatives which maintain durability and quality.



## UK Dairy Day marks its dedication to dairy

The BEST yet! Fantastic support was evident at the sixth UK Dairy Day demonstrating the strength, positivity, and dedication of the dairy industry with thousands visiting Telford on 11 September 2019 to network, learn and do business.

The dairy industry faces great challenges; the negativity in the media, the financial pressures of milk prices and the uncertainty surrounding Brexit can leave every one bewildered on the future. However, UK Dairy Day attracted over 9,000 visitors bringing together all facets of the industry and saw excellent support from dairy farmers visiting the event, trade exhibitors, cattle exhibitors and sponsors, making it yet again one of the best dairy industry events.

Internal and external exhibition areas were full with over 300 exhibitors representing all sectors of the industry showcasing their products and services, offering advice, innovative giveaways and fantastic hospitality. The weather was fantastic for machinery and equipment to sparkle in the sunshine throughout the external area which included a very



tall bulk tank shadowing the venue.

Save the date for 2020! UK Dairy Day returns on Wednesday 16 September 2020 at The International Centre, Telford, Shropshire. This is our pick of the best exhibitors from this year's show, listed here in alphabetical order: Anpario, Biocell Agri, Farm and Pet, Midland Slurry Systems, Rumenco, Secure Covers®, Shropshire Hoof Care & Waikato Milking Systems. Further details can be found on this page and the front page.

[www.ukdairyday.co.uk](http://www.ukdairyday.co.uk)

## Secure Covers®

Secure Covers® designs and develops its leading range of silage covers, windbreaks, roller doors, bay screens and other protective agricultural products in the UK. Made from the highest quality, finely knitted, UV stable HDPE, all Secure Covers' products are available throughout the UK and overseas. Highly regarded in the farming community, Secure Covers has earned a wide reputation for quality, durability and value.

Secure Covers® makes sheeting up silage clamps quick, clean and easy. Made from tough interlocked knitted HDPE, Secure Covers are used over silage sheets and fixed in place using Secure Gravel Bags

Once fitted, Secure Covers' unique construction disperses wind gusts ensuring that the silage sheet remains in place on the silage pit.

Flexible Secure Covers reduce surface waste by keeping the silage sheet in close contact with the silage surface.



The finely knitted mesh helps to prevent bird damage to the silage sheet and when pulled down, stops birds feeding on the feed face.

T +44 (0)1588 680661  
[www.securecovers.com](http://www.securecovers.com)

## Shropshire Hoof Care

Shropshire Hoof Care is an established foot trimming service striving to reduce lameness on farms by having great communication between farmer, foot trimmer and vet. We have four full time licensed foot trimmers each operating a fully automated upright crush covering a large area in the UK.

We can provide:

- ▼ A detailed action plan to be included into your Herd Health Plan
- ▼ Referral of cases that need veterinary intervention
- ▼ Advice on footbath regimes & application
- ▼ Digital dermatitis control alongside scoring and an action plan
- ▼ Online access to all foot trimming reports and upcoming visits
- ▼ Mobility scoring



Contact us for more information:  
M 07824 844621  
[office@shropshirehoofcare.com](mailto:office@shropshirehoofcare.com)  
[www.facebook.com/shropshirehoofcare](https://www.facebook.com/shropshirehoofcare)

## Anpario holds the key to improving fertility rates and life-long milk production

UK Dairy Day saw Anpario showcase Optomega Plus, the answer to improving herd fertility rates and milk production. Optomega Plus helps to support the establishment and maintenance of pregnancy, resulting in higher conception rates. Enhanced reproductive success subsequently increases longevity and thus life-long milk production, boosting profitability.

The beneficial effect of Optomega Plus on dairy cow fertility is due to the consistent level of EPA and DHA present; two of the most biologically active omega-3 fatty acids which effect prostaglandin production. Prostaglandin is a hormone associated with termination of pregnancy, supplementing with Optomega Plus suppresses prostaglandin production, thus increasing the chance of successful implantation of the embryo.

Anpario is a UK-based, world-leading, innovation driven company, with over 30 years of expertise in the agricultural sector. The Anpario portfolio is divided



into four categories; Health and Performance, Toxin Management, Feed Quality and Hygiene and Insect Control. Anpario's mission is to add value throughout the lives of animals by combining knowledge, science and nature. This is accomplished by producing cutting-edge technologies that work in harmony with the natural aspects of the animals' biology and environment to promote healthy growth and maximise producers' profitability.

T +44 (0)1909 537380  
[sales@anpario.com](mailto:sales@anpario.com)  
[www.anpario.com](http://www.anpario.com)

## Your trusted partner in slurry and agricultural waste water management

Founded in 1985 by Peter Russell, Midland Slurry Systems Ltd specialises in the supply and maintenance of agricultural waste water treatment and animal slurry management across the UK. Since Peter's retirement, the company remains a family concern with Giles and Ben Russell taking on the management of the business as we continue to grow.

We pride ourselves on a full service and bespoke offering to our customers – from initial advice outlining suitable options through to installation, commissioning and after sales service care. Our time spent in the industry has shown that no two jobs are the same; each site poses its own individual challenges. We bring to bear experience gathered from a wide range of installations and servicing, from farms with 80 cows to larger scale dairies with 2,000 cows and every herd size in between. We also count anaerobic digestion (AD) plants and pig farmers amongst our customer base.



Offering a full range of products from slurry scrapers, pumps, mixers, separators, sand bedding reclamation systems, umbilical systems, to dirty water irrigation, pipe and fittings, we are confident we have something to suit most farmers. We work with industry leading suppliers including McInanahan, Landia (UK), Storth Machinery and Briggs Irrigation to deliver the most cost-effective solution for your needs.

T 01608 664219  
[info@midlandslurrysystems.co.uk](mailto:info@midlandslurrysystems.co.uk)  
[www.midlandslurrysystems.co.uk](http://www.midlandslurrysystems.co.uk)

## Keep your animals happy & healthy

Industry Update has selected Farm and Pet as one of our top exhibitors at this year's UK Dairy Day. An independent online pet pharmacy, Farm and Pet supplies products for all aspects of animal healthcare, serving the commercial and domestic market with large and small animal products.

With a huge selection of farm and pet supplies to choose from at excellent prices, Farm and Pet boasts a team of friendly and efficient staff to help you every step of the way. Whether you are looking for medicine for your cat or your cow, someone is always available during office hours to offer any advice or information you might need.

The company offers a range of medicinal, hygienic and food based products for both pets and farm animals, to ensure they are kept happy and healthy at all times. Indeed, Farm and Pet knows how important it is to keep your pets well-groomed and feeling their best, and understands that healthy farm animals mean higher levels of productivity. This is why Farm and Pet does its best to ensure you can find the right products in the right quantities whenever you need them.

If you would like to find out more information on everything



Farm and Pet offers, or get in touch for advice on the products you need, head to the website or use the contact details below.

Contact  
T 01630 639738  
[www.farmandpet.co.uk](http://www.farmandpet.co.uk)

## Ecolab launches new Flexigard Spray

Progiene, Rumenco's dairy hygiene division, has taken on the distribution of the Ecolab farm hygiene product portfolio and has launched Flexigard Spray, a new, BPR (Biocidal Product Regulations) approved post-milking lactic acid teat spray.

According to Progiene's Business Unit Manager Alison Clark, "In Flexigard Spray, we believe we have found the perfect addition to complement the well-established Ecolab dairy hygiene range."

Flexigard Spray has been formulated to be sprayed through conventional or automated systems, including robotic milking equipment and contains lactic acid, a broad-spectrum biocide with proven efficacy against the environmental and contagious pathogens that can lead to clinical and sub-clinical mastitis infections. Flexigard Spray is designed to be film forming to improve



coverage and contact time on the teat skin to protect for longer and has a low drip formulation for reduced wastage so that Flexigard Spray stays on the teats

and not on the floor!

Additionally, the strong blue colour of Flexigard Spray provides a visual check that all cows have been sprayed or dipped prior to leaving the milking parlour. Flexigard Spray has been trialled on UK and European farms with 100% of the farms reporting a drop in their antibiotic use. The same number of farmers reported that while trialling Flexigard Spray, teat skin condition had improved which had also led to a reduction in time spent cleaning teats at the following milking.

Flexigard Spray is manufactured by Ecolab with Progiene having the sole distribution rights in the UK.

Progiene is currently offering a free bodywarmer with each 1,000 litres purchased. Visit: [www.progiene-dairy.com](http://www.progiene-dairy.com) for more information.

## Biocell Agri: The yeast specialist

Biocell Agri is a specialist in the field of applied microbiology in animal nutrition, managing rumen function for maximum performance and safeguarding health through effective mycotoxin control.

The company offers the most comprehensive choice of specialist ingredients for the complete diet feeder, home mixer, and any farmer who wishes to achieve maximum return from home produced feeds and forages, while exploiting the true genetic potential of all stock.

High yielding dairy cows and intensive finishing cattle are able to reach their genetic potential for production with enhanced rumen activity and disease prevention. This is achieved through carefully balanced diets and the inclusion of pure live yeast (Biocell) and mycotoxin deactivator (Mycocell), which have been chosen for their effectiveness, consistent performance and health benefits.

What's more, these benefits are not confined to dairy and beef production. After extensive trials with sheep and finishing lambs, Biocell Agri has obtained full EU approval for sheep and milking goats, and Biocell is the only pure live yeast product on the UK market which has been approved for dairy cows, beef cattle and calves, sheep, goats, and horses.



Biocell Agri also covers silage treatment and slurry management through First Choice silage inoculant and Slurrycell, which are highly important aspects of farm profitability.

T 01776 820647  
M 07718 905625  
[biocellagri@btinternet.com](mailto:biocellagri@btinternet.com)  
[www.biocellagri.com](http://www.biocellagri.com)

# Transforming industry through additive manufacturing

**Industry Update is proud to announce that 3DGBIRE has been chosen to receive our Additive Manufacturing Company of the Year award.**

Established four years ago by Paul Croft and Alex Mayor, 3DGBIRE was created to assist industry in adopting additive manufacturing, acting as a transformative power for companies working within general engineering, automotive, architecture, aerospace, and medical industries, to name a few. Based in Lancashire and servicing the whole of the UK and Ireland, 3DGBIRE offers sales, expert support, adaptable training, and a broad range of 3D printers, scanners, filaments, spare parts and service plans.

Indeed, 3DGBIRE offers world-leading 3D printing and scanning technologies, which are underpinned by top quality materials and support with training services both on and off site. The company provides a comprehensive service, from implementation and training all the way through to first class aftercare

Since its inception in 2015, 3DGBIRE has witnessed impressive growth, experiencing a highly transformative period over the last 12 months. "We've doubled our head count, moved premises, won awards, released new products and taken on new suppliers," said Peter Cropper, Operations Manager. "We've grown the business hugely in all dimensions, but the most important thing is that



the whole team is excited and looking forward to working with both existing and new customers over the next 12 months."

3DGBIRE's key focus is on assisting all sectors of industry to adopt additive manufacturing, ensuring its customers know how to adapt and integrate it into their existing workflow whilst realising substantial returns on their investment. "We provide customers with a pathway and understanding to help with this. We have business development experts and applications engineers who work with our customers in a consultative way, working on practical projects to identify the best applications for adopting additive manufacturing into their work routines and production processes.



"3D printing and its associated materials are always evolving, so we make it our mission to stay on top of new developments and make them accessible to our customers. Our



workshops and training courses can be delivered either at our own premises or at the customer's location anywhere in the UK or Ireland. It's all about sharing expertise and delivering the means for industry to make significant returns on investment with additive manufacturing."

Adopting additive manufacturing boasts tangible benefits for businesses in most industry sectors. "Whether a business is involved with manufacturing bespoke objects, or has mass production lines, there will be opportunities for 3D printing to save time and money," explained Peter. Indeed, by using additive manufacturing, production processes can become faster and less expensive than many traditional methods. When customers can manufacture the parts they need within much shorter lead times and at hugely reduced unit costs, this naturally results in excellent ROI.

With an impressive array of successes over the last year, 3DGBIRE has a firm foundation on which to build its future plans. "We'll be continuing



to grow our expert workforce and customer training capabilities, as well as expanding our product portfolio to ensure we are able to serve as many industry customers as possible throughout the UK and Ireland," said Peter. "It's an honour to receive this Company of the Year award; we work hard at everything we do so it means a lot to be recognised."

If you would like to find out more information on 3DGBIRE's full range of capabilities, and see how they can help you transform your production processes, head to the website or get in touch using the contact details below.

T 01257 228411  
enquiries@3dgbire.com  
www.3dgbire.pro



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## CHEMUK: Where the UK's chemical industries meet

This year's CHEMUK show took place from 1-2 May 2019 at the Yorkshire Event Centre, Harrogate. It is the UK's only trade show dedicated to bringing together multi-layer chemicals/chemical product development, specification and processing/manufacturing communities with crucial supply chain supplier groups.

With over 2,500 specialist businesses contributing to the UK's chemical industry, CHEMUK is the unmissable event

where the UK's chemical industries meet. 2019's event saw over 170 specialist exhibitors on site, showcasing the latest plant equipment, materials, and services, making it an exciting & diverse experience for those who attended.

Taking place over two days, the event was a comprehensive supply chain sourcing, business networking, intelligence gathering, best practice and strategy development experience, boasting an

outstanding speaker programme featuring over 90 speakers. These experts delivered the latest intelligence, best practice and technological insights, addressing significant topics which are influencing the chemical industry both today and in the future.

Next year's event will be taking place from 13-14 May 2020 at EventCity in Manchester. This is our pick of the best exhibitors from this year's show, listed



here in alphabetical order: Chemicals Northwest, CONDUCTORLINER, Hibiscus Plc, The Klinkau Group, LAUDA Technology Ltd, Rain for Rent & Suurmond UK. Further details can be found on this page and the next.

[www.chemicalukexpo.com](http://www.chemicalukexpo.com)

## CONDUCTORLINER

Currently, there are thousands of metres of above ground and underground pipes in the chemical sector. When fitted as new, pipes are theoretically perfect. Made of dissipative earthenware material, flammable liquids such as solvents, pass down and any build-up of static is dissipated out of the pipe, removing the threat of explosion.

A major flaw has been present in repairing underground infrastructure for decades, threatening the personal safety and continued well-being of thousands of workers in many key industries, as well as massively increasing the threat of environmental and commercial risk. Traditional repair methods introduce the potential for explosion and spark into pipes, they are NOT BS60079-32 compliant because dissipative products are not used. The environmental risk may have been negated when any leak was stopped; however, an explosion risk was introduced.



THE WORLD'S FIRST ANTI-STATIC REPAIR SYSTEM

Thanks to our patented 100% dissipative pipe repair product, CONDUCTORLINER – a true 'World First' – no dig pipe repairs in the chemical sector, have changed forever because CONDUCTORLINER is the first product in the world that conforms to HSE legislation and that is EN/BS60079-32 and DSEAR compliant. There is NO STATIC/SPARK THREAT in any pipes repaired using CONDUCTORLINER. CONDUCTORLINER is unique, a World First, and the epitome of ground breaking British innovation.

T+ 44 (0)330 111 0007  
M +44 (0)7762 536636  
[www.conductorliner.com](http://www.conductorliner.com)

## Hibiscus Plc

Hibiscus Plc is a long-established, family-run, commercial printing company that is owned and managed by the Killerby family. It is one of the UK's leading manufacturers of hazard warning labels and for nearly 40 years, it has specialised in providing high-quality, labelling solutions for the chemical and hazardous goods industries. It also produces software for the classification and labelling of chemicals, and the creation and management of safety data sheets, to help its customers comply with the supply, transport and end-use of chemical products.

Hibiscus Plc is the only label printer in the UK that actually performs its own BS5609 Section 3 tests and its self-tested substrates, and Blue Wool Scale 7 inks, provide fully compliant BS5609 labels which can withstand the harshest of environments.

The demands of ensuring compliance in the chemical industry means that, for reputable companies, choosing a label company



with expertise and experience is pivotal. The correct labelling of chemicals for safe storage, distribution and transport can potentially be a minefield and Hibiscus has a long history of keeping abreast of the latest legal requirements in order to keep its customers in full compliance with the latest legislation.

T 0113 242 4272  
[enquiries@hibiscus-plc.com](mailto:enquiries@hibiscus-plc.com)  
[www.stock-xpress.com](http://www.stock-xpress.com)  
[www.hibiscus-plc.com](http://www.hibiscus-plc.com)



## Chemicals Northwest

Chemicals Northwest is an industry-led, cluster organisation that works with the chemistry-using industries of the North West and surrounding areas. We are an established business network owned by the Chemical Industries Association, centred around a dynamic membership structure that brings together many different facets. With over 140 members we actively promote this important regional sector.

Our aim is to improve the sustainability, competitiveness and image of the industry

by facilitating networking events, common interest groups and interactive workshops all aimed at covering topical industry issues. Chemicals Northwest also publishes a quarterly magazine called Elements! 'Elements' contains the latest round up of member news, specialist features on topical chemical industry issues and 'spotlights' on new members. This is a great opportunity for member companies to establish an association with those sector issues by contributing free editorial and press releases. Companies may also wish to look at advertising.



### Annual Awards Dinner

CNW wish to take this opportunity to officially launch our 2020 annual awards dinner programme. Due to take place at the Hilton Manchester Deansgate on 19 March 2020, we encourage all those involved in the industry to share good news stories by entering the awards and helping us to promote our dynamic sector.

Contact  
[www.cia.org.uk/chemicalsnorthwest/awards\\_2020](http://www.cia.org.uk/chemicalsnorthwest/awards_2020)

## LAUDA Technology Ltd

LAUDA Technology Ltd provides class-leading expertise in pre-sales and post-sales for applications requiring precise heating and cooling solutions, ranging from -150°C to +550°C. These solutions can apply to multiple product stages, from research and design through to pilot plant, full production lines and quality control.

Working within a diverse range of industry segments, LAUDA Technology Ltd focuses particularly on chemical, biotechnology, pharmaceutical, medical, automotive, aerospace, digital printing and food and beverage application solutions.

The primary focus is on robust and feature-rich solutions that allow operators to easily become familiar with the equipment, while giving customers a reassuringly low total cost of ownership throughout the equipment life.

With a 63 year history, and a dedication to innovation and portfolio expansion, the recent acquisition of GFL has added laboratory freezers, shakers, incubators, and water stills to the already highly-capable product portfolio of process thermostats, circulation chillers, water baths, tensiometers, viscometers, and the new contact angle measurement device, providing heating, cooling and measurement solutions throughout the product lifecycle stages.

Additionally, new products launched this year offer remote access via a smartphone or tablet along with enhanced cooling capabilities, while the new generation chillers offer energy savings of up to 50% compared to similar products significantly reducing running costs, and are importantly fully compliant with the new Ecodesign directive.



Contact  
T +44 (0)1780 243118  
[info@lauda-technology.co.uk](mailto:info@lauda-technology.co.uk)  
[www.lauda-technology.co.uk](http://www.lauda-technology.co.uk)



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[WWW.LAUDA-TECHNOLOGY.CO.UK](http://WWW.LAUDA-TECHNOLOGY.CO.UK)

## Rain for Rent

Rain for Rent is a leading provider of temporary liquid handling solutions. With more than 80 years of engineering excellence in temporary liquid movement, filtration and storage in the United States, Rain for Rent International offers this Liquid Ingenuity® also in the United Kingdom, Germany, the Netherlands, and France. Products and services include newly designed storage tanks, filtration units and spill containment for use in petrochemical production and refining, construction, environmental remediation; in fact any industry that needs liquid handling solutions.

The safety-focused containment systems are designed with Liquid Ingenuity® in mind, so that we can handle your project needs. Our knowledge and experience help you to safely transfer and temporarily store liquids. Combining a 70,000L storage tank with the E-Contain® Spillguards, filtration units and PipeStax® will provide a complete containment system protecting your workforce, project and the environment.

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# New high temperature Drawer Filter Magnet



Figure 1 – The New FF350 Drawer Filter Magnet

**B**unting launched the FF350, a new Drawer Filter Magnet designed for use in high temperature applications, at the K 2019 Show (16-23 October 2019 Dusseldorf, Germany).

Bunting is one of the world's leading designers and manufacturers of magnetic separators and metal detectors for the recycling and plastics industries. The Bunting European manufacturing facilities for their wide range of metal separation and detection equipment are in Redditch, just outside Birmingham, and Berkhamsted, both in the United Kingdom.

The FF Series of Drawer Filter Magnets collect and separate ferrous

metal contamination from gravity fed, dry, free flowing materials. Mounted inside the outer housing are extremely strong Neodymium Rare Earth Magnets which attract and hold any magnetically-susceptible contamination. FF Drawer Filter Magnets are used extensively in the plastics sector prior to moulding and extrusion, and also in the processing of secondary plastic.

The FF350 High-Temp Drawer Magnet answers the growing demand from both OEMs and end-user customers for processing material at higher temperatures. Higher temperatures promote plastic clarity and performance, particularly in injection moulding. However, neodymium rare earth magnets are susceptible to permanent damage if exposed to excessive heat, significantly reducing magnetic strength and the capability to separate fine ferrous magnetic particles.

During the design phase, Bunting's engineering team reviewed all aspects of the Drawer Filter Magnet, assessing the areas of risk when exposed to high temperatures. Magnetic integrity was vital and to maintain the magnetic strength and separation capability, the FF350 features special high temperature-compensated rare earth magnets.

Within the rugged housing, the design team made a number of changes. Polycarbonate is suitable for working temperatures of up to 130°C and replaced the standard Lexan used for the viewing window. The easy-release, high-torque door knobs are suitable for temperatures up to 175°C. The housing is built to support symmetrical 4,500kg compression loads and stainless-steel centre drawer guides make removal and re-installation of the magnet drawer for cleaning quick and easy.

The FF350 drawer gasket is made from Viton sponge material,

which is rated to 200°C maximum temperature and resists heat aging and compression set. Polysulfone material is used on the front of the FF350, resisting intermittent temperatures up to 175°C.

A key feature of the new design is the ability for customers to easily upgrade existing units. The design of the FF350 housing is the same as a standard model, and existing users can purchase drawers & other accessories separately to upgrade their FF Drawer Magnets into a FF350.

The FF350 is a valuable addition to the FF Drawer Filter Magnet range.

For further information, please contact us at: [press@buntingeurope.com](mailto:press@buntingeurope.com) or visit our website at: [www.mastermagnets.com](http://www.mastermagnets.com)



Figure 2 – An installed FF Drawer Filter Magnet

## CHEMUK 2019 Review Top 10

### The Klinkau Group

The Klinkau Group is a worldwide leading supplier of plastic filter plates for the use in membrane and chamber filter presses. Established in 1981 the Klinkau Corporate Group is a medium-size company headquartered in Marktobendorf, Germany. Klinkau filter elements are globally used in liquid-solid-separation mainly in chemicals & pharmaceuticals, food & beverage, mining

& minerals (tailings and concentrates) as well as industrial and municipal waste water treatment.

Our filter plates excel through clever details, highest craftsmanship and excellent raw materials. Through continuous research and development, we have reached a point where our customers consider us as problem solvers

and the 'go-to-guys' for membrane plate filtration and thick walled injection moulded parts.

With manufacturing facilities located in Germany, Italy, Malaysia and the USA, Klinkau is close to the customer through a worldwide established sales network including its own sales representative offices.

For more than 30 years, customers have been able to rely on Klinkau's innovative technologies, high standards of quality and first-class service – or as we put it "Reliability and Performance in Filtration".

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### Suurmond UK



ChemUK 2019 was the first exhibition that Suurmond UK had attended in some years. We had developed the feeling that shows where not well attended by people that had serious reasons for being there. There would always be more salespeople than engineers or buyers. So, when ChemUK was brought to our attention we decided to dip our toes back into the exhibition game. We had been waiting for a dedicated, industrial chemicals, showcase.

On reflection we are very happy. Initially the team at UK Industry Events, the organisers of ChemUK, where very strong with social media, allowing us lots of opportunity to start getting our message out early. At the show we were very pleasantly surprised by the numbers of visitors, especially on the first morning; clearly others felt the same as us about needing an industrial chemicals exhibition. The 'quality' of the visitors was good, there were lots of engineers and buyers there that were there for a reason. They provided us with opportunities that we might not have got by any other route. After the show we followed up with the leads we generated and expect orders shortly that will more than cover the cost of the 2019 event & partially pay for 2020.

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# Lifting the lid on capping,



**O**ur sister publication, **Food and Drink Matters**, strives to recognise companies who are truly breaking the mould of their industry, working to offer the most innovative products coupled with outstanding customer service so they are not just meeting industry standards, but setting them. For this reason, **Food and Drink Matters** was happy to announce that **Cap Coder** has been chosen to receive the **Packaging Company of the Year** award.

With well over 40 years of experience in the industry, Cap Coder specialises in the design and manufacture of standard and bespoke solutions for capping, coding and filling. Over the last few decades, the company has cemented its status as an industry leader, and is dedicated to fortifying this reputation through constant development and growth while maintaining the personal touch that comes with being a family run business.

Established in 1974 by Lou Bates, the grandfather of Ross Prior, the current Managing Director, Cap Coder became a Limited company in 1976 and has reaped an impressive array of accolades since. Based in Oxfordshire, the company works with clients in the UK and abroad, using its years of knowledge, skill and expertise to establish a strong and loyal customer base.

Indeed, Cap Coder is committed to spending time getting to know its customers, making sure it listens and understands their needs to ensure it provides the most appropriate solution every time. With a core ethic of providing outstanding customer service and support, Cap Coder's first class and flexible results are guaranteed to exceed expectations. "We are a close knit, family run business and lots of family members are involved with the company, and we maintain a very straightforward environment and welcoming atmosphere," Ross explained.



Using a solid foundation of trust and integrity, Cap Coder offers proactive and supportive service with realistic and competitive pricing, all of which is underpinned by innovative design, engineering and manufacturing capabilities. What's more, Cap Coder is agile enough to meet the changing needs of its customers, responding to developments in engineering and packaging by developing new products to cope with emerging challenges. By investing in an ongoing programme of investment, Cap Coder is well-placed to meet its customers' fluctuating needs. Indeed, Cap Coder actively encourages its customers to call and discuss their specific requirements, with the company's team of technical experts always putting its customers' needs first.

With this outstanding customer service at its heart, Cap Coder provides its machines for a wide range of industry sectors, including toiletries, cosmetics, pharmaceuticals, vaping, complementary medicines, chemicals, and food and beverage. Within this assortment, Cap

Coder's machines are used for an even broader range of products, catering for all shapes and sizes of bottles, jerry cans, tamper evident caps, pump action spray caps, and trigger spray caps. All machines are accredited to ISO 9001-2008 standard, and come with a Certificate of Conformity/Incorporation to further highlight the quality and validity of the company's technology.

Indeed, Cap Coder's extensive range of machines means the company can cater for any customer, no matter the size or project. Its range includes machines for screw cap tightening to the desired torque, press on capping, plug insertion, liquid filling, agitator ball insertion, conveyor, and ATEX zone 1 and 2 compliance.

Most importantly, all machines are made in the UK and designed in house, ensuring Cap Coder can manage everything, from design to manufacture to after sales care. "We do everything in house, including design, machining, fabrication and assembly," explained Ross Prior. "This means we have total control over the entire process. We are also proud to offer bespoke machines, a rare feat in the UK market."



Indeed, Cap Coder's facility to offer bespoke machines helps the company to maintain its position at the forefront of innovation. We asked Ross to elaborate on the unrivalled experience a customer can expect when looking for a customised project from Cap Coder. "If a customer would like a bespoke machine, we invite them to the factory where they can discuss the style and operation of the machine, and what they want/need it to achieve. We look after the project



right from these initial stages all the way up to producing the final machine for the customer. We are proud to offer full, comprehensive solutions no matter what their needs.

"We recently built a bespoke filling machine for

months have been brilliant," Ross said. "We're still growing consistently, as we have done for the last three years. We are always expanding our portfolio, offering an increasing number of capping and filling machines in addition to our established capping machine range. We're hoping to continue this expansion over the next few years. Also, our sales have been even better than expected, with the numbers being up on last year's."

To bolster this success, Cap Coder has employed some new staff members who have brought a wealth of experience to the company. "18 months ago, we took on a new Operations Director who has made a massive difference to the company, significantly reducing lead times and improving internal systems. The company also welcomes two new sales engineers and well as two new mechanical designer engineers."



We asked Ross what he was most proud of and he responded with, "We are massively proud of not only being a British company but a British company that designs, manufactures, supports and indeed exports its own products around the world. I am also so very proud of the team who have made all the growth possible. It's a tight, hard working group and they are all totally on board with me, pushing in the same direction. It's very reassuring feeling to be able to stand back from it all from time to time knowing that the key players are there pushing it on with the company's best interests at heart."

We also asked Ross, what sets Cap Coder apart from its competitors?  
"Without doubt our strongest point is flexibility.



an existing customer. They wanted a design we had for a capping machine to become a filling machine, and wanted the operator to only have to change the starwheel rather than having to change and move individual nozzles where they could have set them incorrectly, essentially making the product changeover fool proof."

Indeed, the customer was more than satisfied with the outcome, as the following testimonial demonstrates. "We have had a great experience working with Cap Coder. We have brought a number of machines from them now including the latest CC560 filler. When we first approached Cap Coder with our filling machine brief, they used their knowledge and creative touch to come up with a totally new idea for us. We needed a compact machine, with quick changeovers, and fast, reliable operation. The machine they created for us achieved all this and more. It has helped us rapidly increase our production process to keep up with our 50% growth rates, whilst sticking to LEAN principles of manufacturing. We would definitely work with Cap Coder and I can highly recommend them." – Thomas Laird, MD of Crystal Spring Consumer Division Ltd.

With 40 years of unprecedented success, Cap Coder has exceedingly high expectations to live up to. Thankfully, the company is never one to rest on its laurels and the past year has seen further success for the innovative company. "The last 12

# coding and filling experts

The flexibility to adapt and change whatever is needed to meet customers' demands, not only from a mechanical aspect but also from a controls point of view. We often get asked to design in certain features such as a special sensor to detect something out of the ordinary.

"For example, we have just been asked to incorporate a vision system into one of our machines where once the torque head has finished cap tightening, it then picks up the bottle and slowly rotates it while the camera looks to detect a code on the bottle. Once detected, the torque head stops, lowers it onto the conveyor and releases it.

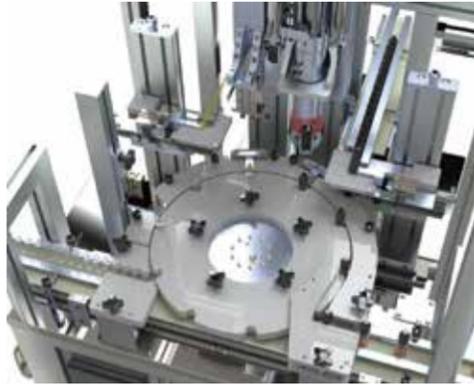


"This application is fairly straight forward but we have been challenged with some very technical situations. Luckily our Technical Director is nothing short of brilliant and there is no problem he hasn't been able to overcome yet. It is due to this we are indeed becoming more of a 'solutions' company for some of our customers."



Another recent development was the release of the Micro-Mono Bench Top Filling and Capping machine, used heavily in the e-cigarette industry. "This is a revised version of a previous model," explained Ross, "and it can go from manual operation to being fully automatic. I've been told repeatedly that for its size and price range it is unbeatable in the industry, and it is one of our bestselling machines as well as being one of the most cost effective."

Cap Coder offers one of the most comprehensive ranges of capping machines in the industry, providing anything from low volume bench top



machines to fully automated production systems. The company's solutions boast multi-functionality, designed to accept modular work stations, with fully automatic PLC control and a simple human-machine interface.

As well as the new range of machines including the Mini Mono and Micro Mono, Cap Coder has been designing a new range of filling machines due to popular demand.

Ross stated, "We have been incorporating fillers into our machines for many years now and have had much success using gear fillers recently, driving them with the Schneider Servo motors we know and trust. Using these motors and the new HMI/PLC combos we can program in some very useful functions and due to repeated requests from customers, old and new, our machines have morphed from capping machines with an integrated filler, to totally dedicated filling machines."

As well as its extensive range of high-quality machines, Cap Coder understands the ongoing maintenance needs of its customers, and provides outstanding after sales care. Establishing solid, longstanding relationships with customers, Cap Coder boasts an expert team of service and support engineers which prides itself on reacting efficiently to customer needs. This guarantees that Cap Coder's customers can maintain an efficient working machine.

Furthermore, Cap Coder understands that even the most reliable of machines need spare parts



Ross Prior, Managing Director of Cap Coder, accepts the Company of the Year Award

from time to time, in order to replace components that may have worn out. This is no trouble for Cap Coder, who can provide customers with any spare part for any of its machines, and arrange a visit to fit the part if required.

If this wasn't enough, Cap Coder can also cater for any increase in its customers' product ranges. If such an increase occurs, the customer may want to run their new products through their existing Cap Coder machine. Thankfully, all of the company's machines are designed to accommodate new products by using change parts which have been specifically designed to fit each of its customers' individual products.

This fantastic selection of aftercare services ensures that Cap Coder establishes and cements long-term relationships with its customers, adding further renown to the company's enviable reputation within the industry.

These accomplishments are only set to continue, as Cap Coder has continuing plans to develop its already impressive product range. "We want to keep expanding," explained Ross. "We're developing increasingly faster machines, and we have just started designing a 120 per minute machine." Indeed, Cap Coder ensures it has its finger on the pulse of the industry's latest developments, and has a range of exciting projects in the pipeline to further address its customers' needs.

Boasting a 40+ year history of outstanding manufacturing capabilities and unequivocal customer service, Cap Coder is fortifying its industry-leading status with each year that passes. Without question, the company is well-deserving of our Company of the Year award, "I feel great! It's fantastic to have received this award," Ross



concluded.

Cap Coder can be found at a number of trade shows throughout the year, including the Hemp & CBD Expo in September at the NEC, Birmingham, and the White Label World Expo at the ExCel Centre, London in November.

If you would like to find out more information on Cap Coder's full range of machines and services, head to the website. Alternatively, get in touch using the contact details below.

**Contact**  
**T 01865 891466**  
**info@capcoder.com**  
**www.capcoder.com**



# FourKites® and Ocean Insights form strategic partnership to provide end-to-end predictive visibility and transform ocean freight tracking

*Exclusive partnership between visibility pioneers creates a plug-and-play deployment model for end-to-end container visibility*

**F**ourKites®, the leader in predictive supply chain visibility, and Ocean Insights, the leader in ocean freight intelligence, recently announced an exclusive partnership to transform container visibility. The strategic partnership creates a plug-and-play deployment model that integrates Ocean Insights' superior ocean freight tracking data with FourKites' real-time visibility platform to offer domestic and international logistics professionals true end-to-end visibility, from global seaports to final destinations worldwide.

intermodal, last mile and parcel. The platform is optimised for mobile and equipped with market-leading end-to-end security.

To learn more, visit: [www.fourkites.com](http://www.fourkites.com)

**About Ocean Insights**

Ocean Insights specialises in ocean freight visibility and intelligence by collecting and analysing millions of data points. The company provides actionable information and

insights into ocean freight cargo movements. Harnessing the power of big data, an expert team of data analysts supports customers' day-to-day operations and operational strategies. Shipping practitioners can make informed and strategic decisions based on historical intelligence, predictive ETA, track & trace, and real-time container visibility data. Ocean Insights prides itself on delivering best-in-class data and intelligence in ocean freight.

To learn more, visit: [www.ocean-insights.com](http://www.ocean-insights.com)



By combining FourKites' unparalleled network of more than 260 global shippers with Ocean Insights' real-time container tracking capabilities globally, import and export teams can now rely on a single system for door-to-door tracking.



Through real-time visibility and advanced analytics, FourKites

and Ocean Insights customers can now better manage detention and demurrage costs. And by utilising FourKites' comprehensive dashboards, they can improve operational performance and reduce operational costs.

"We're excited to now offer true door-to-door capabilities to our customers via the integration of our superior ocean data, together with FourKites' over-the-road data and powerful predictive platform," said Dr Felix Richter, CEO of Ocean Insights.

"This partnership gives FourKites and Ocean Insights' customers powerful new capabilities to track cargo and notify downstream supply chain stakeholders of potential delivery disruptions," said Mathew Elenjickal, CEO of FourKites. "Now, supply chain professionals can better manage their operations and unlock value through a single, consistent visibility platform, regardless of international and domestic responsibilities."

Since launching five years ago, FourKites has pioneered the industry shift to real-time visibility, enabling shippers to improve on-time delivery and optimise their supply chains based on actionable data and predictive intelligence. With a network that now includes more than 260 of the world's top shippers, including 18 of the top 20 food and beverage companies and nine of the top 10 CPG companies, FourKites tracks more than 600,000 shipments every day.

Operating on a global scale, Ocean Insights collates millions of data points and provides actionable insights into ocean freight for the logistics industry to improve visibility, transparency, and efficiency. Ocean Insights has pioneered the integration of carrier information and actual vessel whereabouts, providing carrier-neutral, real-time information of all shipments across all major international and regional ocean carriers, as well as container status updates and predicted ETA. Logistics teams all around the globe can get insights into freight movement and overall supply chain transparency that enable them to improve their day-to-day and long-term strategies.

**About FourKites**

FourKites is the largest predictive supply chain visibility platform, delivering real-time visibility and predictive analytics for the broadest network of Global 1000 companies and third-party logistics firms. Using a proprietary algorithm to calculate over-the-road shipment arrival times, FourKites enables customers to lower operating costs, improve on-time performance and

strengthen end-customer relationships. With a network of more than four million GPS/ELD devices, FourKites covers all modes, including truckload, LTL, ocean, rail,



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## Huge range of roll cradles now held in UK

HenryAR, the European trading arm of US company Henry Molded Products, now offers large stocks of Stakker roll cradles in a range of more than 40 styles within the UK for immediate distribution throughout Europe.

The cradles provide producers, converters and distributors of rolls of fabrics, papers and films with a safe & economical system for horizontal stacking on pallets, saving



on production, warehouse and distribution costs. Custom moulded packaging in

paper fibre is increasingly replacing less environmentally acceptable materials. Henry is able to mould large format, heavy duty, deeper sections and its products are recyclable. It has its own design studio, mould making shop, slurry development and production process under one roof.

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## Stretch wrappers & packaging



Packaging provider, Hazel 4D, and pallet wrapper manufacturers, Atlanta Stretch, exhibited together at the PPMA Total show.

They'll be showcasing three stretch wrappers. The Mytho Easy wrapper has a 25mm low profile turntable and is great for high volume pallet wrapping. The high-tech film carriage can stretch film up to 400%. The compact SFERA Easy Touch robot wrapper has the same advanced carriage but can be used anywhere to wrap any size of pallet. The Marathon is a safe alternative to manual wrapping. Operators can push the machine forwards around the pallet to wrap it without bending down, reducing the risk of back strain.

Hazel 4D will demonstrate its Nuevopak recycled paper void fill machines and Locked Air machines, alongside a winder cart that collects air cushions as they're produced.

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## Launching products



Campisa UK launched its loading bay and industrial door products at the International Materials Handling Exhibition (IMHX) at the NEC between the 24th and 27th September 2019.

Campisa Srl has been established in mainland Europe for over 45 years and is a recognised supplier and installer of loading bay dock levellers and shelters, especially in the 'Big Shed' market.

One of the unique features of the Campisa product range that was on exhibit was the Fidelity drive system for Sectional Overhead doors. This hydraulic drive system does away with conventional springs, spring shafts and cable drums. The system can be fitted to new doors and/or existing doors. Because there are no springs to tension or replacing cables that come off cable drums, the drive provides a much safer method of installation and servicing of sectional doors.

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## Packaging Innovations Review Top 10

### High quality content sees Packaging Innovations London break records

Packaging Innovations and Luxury Packaging London celebrated its 10th anniversary with standout show content. This included launching three brand-new features, advancing the sustainability debate with a focus on plastic alternatives, and welcoming more exhibitors than ever before.



As a result, the show, which returned to London Olympia from 11-12 September 2019, boasted a 9% increase in visitor numbers, with more than 4,700 packaging professionals in attendance across both days.

Sustainability was the star of the show as the industry came together to move the conversation of environmental responsibility on to the next level. Experts from Coca-Cola, Carlsberg, Just Eat and Lush Cosmetics were amongst those that took to the stage to offer the latest thinking on sustainability in packaging and the future of plastic alternatives.

The BIG Plastics Debate returned to give the subject a dedicated platform.

This year's debate focused on plastic alternatives and the environmental impact they present, with experts from world-renowned brands leading discussions about the path to a zero-carbon future.

The next Easyfairs packaging event will be Packaging Innovations, Ecopack, Contract Pack & Fulfilment, Label&Print, and Empack 2020, which takes place at NEC Birmingham from 26-27 February 2020. The London show returns to Olympia from 23-24 September 2020. This is our pick of the best exhibitors from this year's show, listed here in alphabetical order: Shredhouse & Spectra. Further details can be found on the right.

[www.easyfairs.com/packaging-innovations-london-2019/](http://www.easyfairs.com/packaging-innovations-london-2019/)  
[packaging-innovations-london-2019](http://packaging-innovations-london-2019)  
[www.packagingbirmingham.com](http://www.packagingbirmingham.com)

### London packaging show hugely successful for Spectra



Spectra recently experienced another successful appearance at this year's Packaging Innovations show at London Olympia. The Suffolk-based manufacturer attracted a large amount of visitor interest to its eye-catching stand, drawing genuine praise for the firm's comprehensive offering.

On display were a large selection of standard bottle designs in HDPE and PET, injection moulded closures, plastic jars, filled customer pack examples and decoration examples. Spectra also highlighted environmental packaging in both Post-Consumer Recycled (PCR) and sugarcane-based biopolymer.

Taking advantage of the show's innovative theme, Spectra also

premiered its very latest ground-breaking offerings. These included a new marble finish for injection moulded closures, its most recent high lustre silk finish for bottles and a new range of distinctive oval designs in HDPE.

Spectra's innovative capabilities were also recognised at the show where its custom moulding and environmental efforts for the Beached brand were nominated as one of the most innovative packs at the event. The same bottle also received a highly commended award in the prestigious Horner's Bottle Makers Award soon after.

T +44 (0)1986 834190  
[sales@spectra-packaging.co.uk](mailto:sales@spectra-packaging.co.uk)  
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### Creative gift packaging



Shredhouse Limited is the only UK-based manufacturer of shredded kraft paper, tissue paper and cellophane for the gift packaging market for which we offer national sales coverage. Our high quality and eco-friendly packaging can help to enhance your products, gift boxes and hampers, aiding the overall unboxing experience while doing so.

We work with a variety of customers, from large multi-national brands to British artisans, and across a wide range of market sectors including health and beauty, food and drink, craft and toys, gifts and many more, while also being able to supply retailers, wholesalers and contract packers.

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all important 'WOW' factor to your product packaging, enhancing the perceived value of the product and is an equally attractive way to fill boxes to prevent products from breaking or moving around in their boxes.

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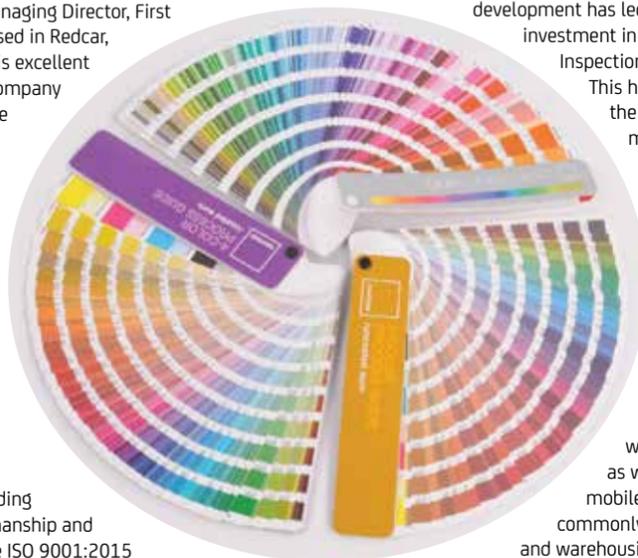
## Labelling Company of the Month

### Leading self-adhesive label manufacturer



Industry Update is proud to announce that First Choice Labels has been selected as our Labelling Company of the Month, for its expert manufacture of bespoke self-adhesive labels.

First Choice Labels manufactures a variety of bespoke labels and tags, including plain, pre-printed (up to 7 colours), foil and colourwashed, as well as printer ribbons and hardware. Established in 2004 by Nigel Willis, the Managing Director, First Choice Labels is based in Redcar, North Yorkshire. This excellent location puts the company close to some of the UK's biggest road networks, allowing for hassle-free distribution across the country. What's more, using its highly experienced and long-serving team of experts, First Choice Labels manufactures products which are known for their leading quality and craftsmanship and is proud to hold the ISO 9001:2015



and BRC Global Standard quality certificates.

Due to the bespoke nature of its offering, First Choice Labels has the ability to create products which are suitable for even the most unique requirements, providing an end to end service, guiding and explaining all aspects of the individual customer's requirements. This means its loyal customer base is highly diverse, ranging from large

food & drink companies and national supermarket chains, to pharmaceutical companies and automotive manufacturers.

Thanks to its high quality products and commitment to customer service, First Choice Labels is solidifying its reputation as a leading bespoke label manufacturer.

Indeed, its dedication to innovation and constant development has led to a recent investment in another PLR350 Inspection Splitter Rewinder. This has increased the company's manufacturing capabilities, while also streamlining its processes to allow for greater efficiency and volume. This investment allows First Choice Labels to remain ahead of its competitors with products such as with QL Labels for mobile printers, which are commonly used in the retail and warehousing sectors.



First Choice Labels also recently underwent an internal extension, nearly doubling its existing 14,000ft<sup>2</sup> factory floor space. What's more, to ensure it will continue to grow with the industry, the company hired a Marketing Manager at the beginning of 2019. This means the company now has someone specifically dedicated to

capturing every opportunity available, allowing for continual developments and improvements in the coming years.

As well as this impressive expansion, First Choice Labels also ensures it cultivates a supportive workplace environment, assisting three apprentices within the factory to help prepare them for the world of work and widen their opportunities within the manufacturing sector and beyond. This ethic also extends to the wider community; First Choice Labels is passionate about supporting local charities, and the Managing Director, Nigel Willis, is a Patron of the Middlesbrough and Teesside Philanthropic Foundation and has been for a number of years.

If you would like to find out more information on First Choice Labels' full range of capabilities, head to the website or get in touch using the contact details below.

T 01642 474230  
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## Replace your tedious routine with the more relaxed weigh-in experience of the new XPR Analytical balance from METTLER TOLEDO

Weighing is an important act in every laboratory – but it can become tedious and even uncomfortable. The design of the new, smaller XPR Analytical balance gives you deeper access to the weighing chamber. This makes every weigh-in easier so you can stay steady & get more done.

METTLER TOLEDO is pleased to support your needs for an accurate, intuitive weighing experience with the launch of our newly redesigned XPR Analytical balance.

The weighing pan has been lowered by 50%. You can now place your arm on the table for greater convenience and comfort while weighing-in, instead of having to hold it in place in the balance. Your benefits: A more relaxed weighing experience, less fatigue, less muscle tension, and less material lost to spills and scattering. It's much easier to do.

Shorter weighing-in distance makes weighing much easier as the narrower design of the Excellence Level analytical balance means that when weighing in from the side with a spatula, the distance to the weighing

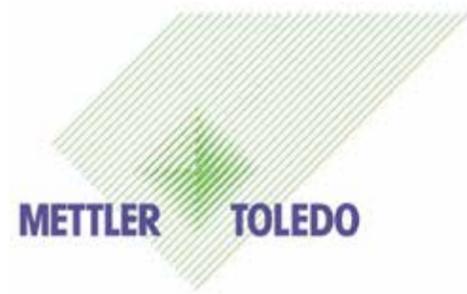


Enhance your weighing accuracy, comfort and productivity with the redesigned XPR Analytical balance from METTLER TOLEDO

vessel is shorter – yet another great advantage that makes weighing more relaxed and reduces the error rate. Every centimetre counts – and makes weighing-in leaner.

Discover for yourself why the new, smaller XPR Analytical balance is a perfect combination of high performance, reliability and ease-of-use to help enhance weighing accuracy, comfort and productivity. Check out the new XPR Analytical balance from METTLER TOLEDO or request a quote today.

[www.mt.com/xpr-xsr-relax](http://www.mt.com/xpr-xsr-relax)



## As easy to operate as your tablet: The new, larger touchscreen of the XPR Analytical Balance from METTLER TOLEDO

Today's busy laboratories are under high pressure to be productive. The new XPR Analytical balance enhances work speed by offering operators an easy, tablet-like work experience – even through lab gloves – for a fast, intuitive weighing experience.

The new XPR Analytical balance supports your need for both accuracy and speed by offering a display screen that is even wider than the balance. Even more astounding, the XPR Analytical offers this extra workspace while maintaining an overall benchprint that is 15% smaller than that of its predecessor.

The larger XPR Analytical colour touchscreen is easy to see and even easier to operate. It gives an overview of weighing information at a glance and improves visibility when working in lower-light areas such as cabinets and glove boxes. A clear user interface and customizable icons also make workflows simple to follow to further enhance weighing speed.

The interface helps to create a familiar, tablet-like experience that is the same across all XPR balance models. This lets labs institute universal weighing



Add ease, comfort and speed to your weighing workflows with the new XPR Analytical balance from METTLER TOLEDO

procedures to reduce both training time and training-related expenses. Integrated method functions also simplify tasks so operators can work faster and switch between balances more easily.

Learn how the larger display of the latest entry in the METTLER TOLEDO Excellence series is adding ease, comfort and speed to weighing workflows in labs around the world. Request a quote today.

[www.mt.com/xpr-xsr-display](http://www.mt.com/xpr-xsr-display)

## Surface Finishing & Grinding Update

# Meeting growing cleanliness demands reliably and cost-effectively

## Cleaning with CO<sub>2</sub> snow before precision gauging

Trends such as miniaturisation have given rise to new challenges in precision parts manufacturing. If strict tolerances are to be met, each product is carefully checked by gauging after surface precision grinding and honing processes. In order to do this, component surfaces must be clean.

With its quattroClean system, acp offers a solution capable of achieving the required cleanliness, reliably, reproducibly and cost-effectively. In addition, the dry, residue-free and environmentally neutral cleaning technology can be adapted to individual requirements. It is highly compact, easy to automate and simple to integrate into production lines and Industrie 4.0 manufacturing systems.

Whether it is the automotive or supplier industry, precision or micro engineering, medical technology, mechatronics, electronics or other industry sector, parts are becoming increasingly smaller. In order to ensure product quality, precision parts are gauged optically, by machine-tool probed, or pneumatically measured after machining, grinding or honing processes.

The closer the measurement system can be moved to the previous production step, the better the results that are obtained. However, contaminants left on the parts' surfaces, such as processing media, residues, abrasives, chips and flaky burrs, can be a problem. They may cause measurement errors and result in parts being rejected unnecessarily.

Scalable cleaning solution with CO<sub>2</sub> snow

This is where the reliable and cost-effective snow jet technology from acp systems AG comes into its own. The scalable cleaning system can be easily adapted to diverse component geometries to clean complete surfaces or selective areas.

The environmentally neutral technology uses liquid carbon dioxide as a cleaning medium obtained as a by-product from chemical processes and the generation of energy from biomass. It has an almost indefinite shelf-life and is supplied in cylinders or tanks.

Liquid CO<sub>2</sub> is fed through a non-wearing two-component ring nozzle of the acp system and expands on exiting to form fine CO<sub>2</sub> crystals. These are then contained by a circular jacketed jet of compressed air and accelerated



Process parameters, such as the flow volume of compressed air and carbon dioxide as well as blasting time, are optimally adapted for each individual application

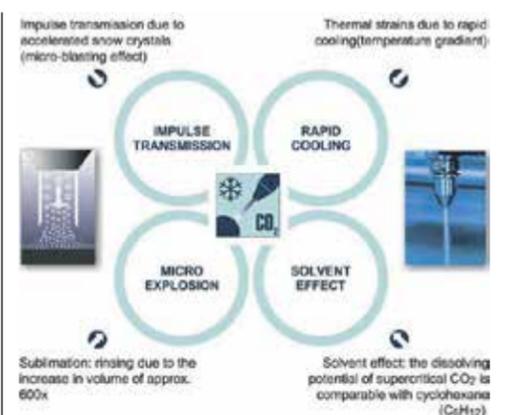
to supersonic speed. The jet of snow and compressed air has a temperature of minus 78.5°C and can be focused exactly where it is needed. When it impacts the surface to be cleaned, a combination of thermal, mechanical, sublimation and solvent effects take place.

These four cleaning mechanisms enable the quattroClean system to remove contaminations, such as residual grinding oils, polishing pastes, abrasive chips, and dust from surfaces and tiny bores (blind or through). Since the cleaning step with the non-combustible, non-corrosive and non-toxic CO<sub>2</sub> snow is also gentle on materials, even delicate and finely structured surfaces can be treated.

The aerodynamic force of the jet transports the detached dirt away. This is then extracted from the cleaning cell together with the sublimated CO<sub>2</sub> in a gaseous state. The workpieces are dry on completion of the cleaning process, enabling them to be measured by optical, machine-tool probe or pneumatic gauging system immediately.

**Compact, easy to automate and targeted control**  
Thanks to its modular design, the compact quattroClean system is easy to adapt to specific customer requirements. This allows for manual, semi-automated or fully-automated cleaning systems to be developed and integrated into existing production, assembly and packaging lines.

Cleaning tests are conducted at the acp technical



**The combined effect of the four mechanisms of action enables particulate and filmic contamination to be reliably removed; with this, the patented technology enables uniform, dry and repeatable cleaning, which is a prerequisite for accurate gauging results**

centre to accurately determine all the process parameters for the application concerned, such as flow volume for compressed air and carbon dioxide, and the duration of the jet. Material properties and the type of contamination requiring removal are also accounted for. These parameters can then be stored as cleaning programs for flexible system control.

[www.acp-systems.com](http://www.acp-systems.com)

## A winning formula



ANV Measurement Systems (UKAS Laboratory 0653) has been providing calibration services for Rion instruments since 2001 and most major manufacturers' sound & vibration instrumentation since 2009.

Operations Manager, Kiran Mistry, says, "Having our laboratory based in Milton Keynes at ANV's HQ means customers do not have to send equipment outside the UK for calibration. As a result, we are able to offer a 5 day turnaround and in conjunction with this, the customer is kept informed throughout the calibration process minimising downtime, potential loss of revenue while at the same time providing assurance and peace of mind."

ANV offer: UKAS Accredited and Traceable calibration for Sound Level Meters, Acoustic Calibrators and Pistonphones, Microphones, Octave/Third Octave Filters, Accelerometers\*, Vibration Meters\*, Tapping Machines, And Reverberation Time.

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## Patented wear control means that planetary gearboxes do not need to be adjusted or replaced

German gear-maker has announced a planetary gearbox with a patented automatic wear control system that prevents the usual increase in torsional backlash caused by wear, thus avoiding the need to adjust or replace the gearboxes when their backlash exceeds tolerance limits. Hamelin-based Melior Motion claims that with this technology, its PSC gearboxes 'virtually' ensure a backlash of less than 0.1 arc-min over their entire service lives.



Although the Melior name may be new, it is a spinout from Stephan-Werke, which started life as a motor manufacturer in 1908, and expanded into the manufacture of gears and geared motors in the 1920s. In 2012, Stephan embarked on a 64m investment programme to develop a new range of planetary gears which it launched in 2015 but only sold directly to a select group of robot manufacturers. In 2017, Melior Motion was 'released' from Stephan with the aim of marketing a standard range of the gearboxes aimed at applications such as positioning, packaging and machine tools, as well as robotics.

The PSC gearboxes span a torque range of 500Nm-7kNm, and operate with efficiencies of more than 90%. Their integrated bearings result in a high tilting ability, making them ideal for applications such as robot axes and turntables. The wear adjustment system means that the almost complete lack of backlash is achieved with low preloads. The gearboxes also have low breakaway torques, improving their control behaviour and reducing peak loads.

At the end of 2018, Melior Motion opened a €7m facility that will allow it to produce 25,000 of the new gearboxes every year. There are plans for a second phase of investment in 2020 that could double its production capacity.

www.meliormotion.com

## Rhopoint Components present NVE's range of smart magnetic sensors

NVE Corporation, a leading manufacturer of tunnelling magneto-resistance (TMR) and giant magneto-resistance (GMR) sensors, are introducing new smart SM and ASR ranges – ultraminiature sensors offering sophisticated digital processing and programmable features.

The SM range includes TMR and GMR

magnetometers, both able to detect magnets over 50mm away and offering in-plane sensitivity far superior to traditional Hall Effect sensors. These models are ideal for proximity sensing and non-contact current sensing.

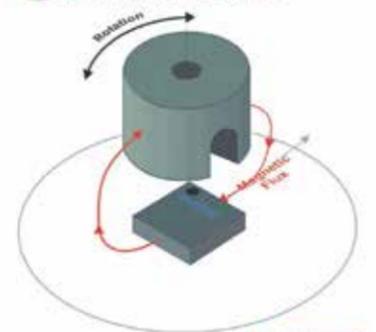
The ASR002 is a TMR angle sensor offering digital indication of magnetic rotation, featuring excellent combination

of speed (up to 375,000rpm) and precision.

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## Rare earth magnets recycling task force

The launch of the European Union (EU)-funded SUSMAGPRO project took place in Germany in June 2019. The four-year project focuses on the sustainable recovery, re-processing, and reuse of rare-earth magnets. With global expertise on magnets and magnetic assemblies, Bunting is one of several project partners.

Bunting is one of the world's leading designers and manufacturers of magnets, magnetic assemblies, and magnetisers.

"Rare-earth magnets are a key component in many frequently used items of equipment," explained Chris Riley, the Group Magnetics Engineer of Bunting's European operation. "With limited resources, developing effective methods to reclaim and then recycle or reuse the magnets is increasingly important."



Figure 2 - Waste Computer Hard Drives Containing Rare Earth Magnets

The SUSMAGPRO (full title: Sustainable Recovery, Reprocessing and Reuse of Rare-Earth Magnets in a Circular Economy) project was granted funding from Horizon 2020 programme of the European Commission (grant agreement no. 821114) and consists of 19 project partners and one associated partner from nine European countries.

Rare-earth magnets are widely used in many high-tech industries including electronics, automotive, aerospace, e-mobility, wind power generation, and consumer goods. The vast majority of rare-earth reserves are located in China and between 2,000 and 3,000 tonnes of rare-earth-elements (REE) are imported into Europe annually. Presently, less than 1% of the imported REE are recycled.

The overall objective of the SUSMAGPRO project is to develop and demonstrate four novel pilot-plant solutions for the clean and sustainable recycling of permanent magnets at Technology Readiness Levels (TRLs) 6-7 (technology or system prototype



Figure 1 - Scrap Magnets

demonstrated in relevant/operational environment). This enables the remanufacturing of secondary REE material into new magnetic products. In the second half of the project, a travelling roadshow will display these new products. Such novel activities will take place over the whole value chain, and solutions created will enable Europe to gain a better foothold in the worldwide renewable energy systems (RES) device markets, enabling the future of zero-carbon mobility and energy.

Bunting's role in the project is to market the recycled magnets or magnetic material produced during the recycling process. For several decades, Bunting has designed and supplied magnets and magnetic assemblies and the team will draw upon that experience to maximise the potential for the secondary REE, in whatever form. The Bunting team is working closely with several organisations including the University of Birmingham, who have developed a process of recovering Neodymium powder from scrap hard disk drives.

"Developing a successful rare earth magnet recycling process has the potential to release vast reserves of REE material," explained Chris. "Not only are there obvious environmental benefits, but also economic. Using secondary REE materials reduces Europe's reliance on imports from China."

For further information, please contact us at: [press@buntingeurope.com](mailto:press@buntingeurope.com) or visit our website at: [www.buntingeurope.com](http://www.buntingeurope.com)



Figure 3 - Waste Computers

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## Endoline launches Robotics Company

In a bid to meet the ever-growing demand for fully automated end of line systems, which increasingly require robotic solutions, Endoline Machinery has launched sister company – Endoline Robotics Limited (ERL) – and formed a strategic partnership with FANUC UK.



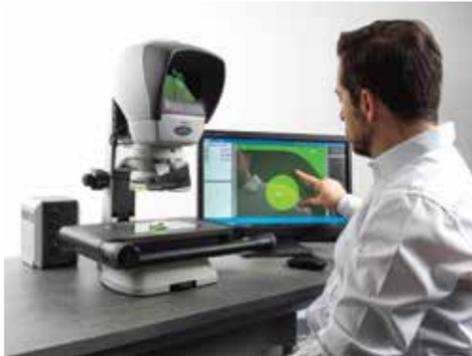
The move reinforces Endoline's reputation as a leading provider of case erecting and sealing automation and, through the strength of the FANUC brand, it will now manage the installation of robotic palletising systems under the umbrella of ERL.

"Our ability to engineer customised, fully automatic case erecting and sealing solutions underpins our reputation in the market. Through our relationship with leading global food manufacturers, we have become increasingly aware of the demand for robotic integration, particularly as companies move away from using manual labour," says Director of Sales for ERL, Grigory Belosky.

At the recent FANUC Open House, which was held at FANUC's state-of-the-art UK headquarters in Coventry from 29-31 October 2019, ERL showcased a fully automatic palletising system which was palletising and de-palletising plastic crates. The system incorporates a 6-axis FANUC M-710iC series industrial robot and the plastic crates were in various sizes and colours to demonstrate the ability to manage mixed pallets.

For further information on any of Endoline's extensive range of machines, please contact Endoline on +44 (0)1767 310581 or email: [sales@endoline-robotics.com](mailto:sales@endoline-robotics.com) or visit: <https://endoline-automation.com/robotics>

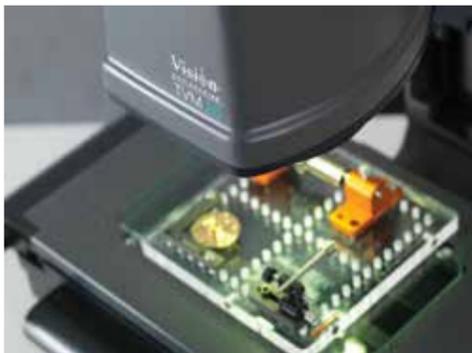
# Helping manufacturers push the technological envelope



**V**ision Engineering, a privately owned, British company, has consistently delivered leading-edge stereo inspection and non-contact measurement products, using leading edge optical or digital technology to improve productivity and quality for thousands of companies. The company's strategic focus is on optimising the user interface and the development of truly ergonomic systems. Operators who use instruments for sustained, repetitive, shift patterns or who need to work very intensively in short bursts, with high accuracy requirements, experience physical and mental stresses which reduce their efficiency in terms of throughput, accuracy or scrap rate.

Vision Engineering is constantly developing technologies to reduce postural or optical stress and to optimise sensory engagement with the work in hand or the working environment.

The company has achieved unprecedented success since its establishment in 1958, and we had the pleasure of speaking to Mark Curtis, Group Managing Director, who told us more about the work behind these impressive achievements.



"We are 99% focused on manufacturers who make something which is safety or quality critical, such as in the medical or aerospace sector, or on manufacturers who concentrate on maintaining a competitive edge, such as high-end automotive companies manufacturing electric and hybrid vehicles who are moving technology forward as well as maintaining quality. Similarly, we work with mobile phone manufacturers who are competing by making products with increasing numbers of features while maintaining reliability.

"This all means that we work with either big manufacturers or their supply chains; we figure out what's important to the big company, and then we work with the entire supply chain to ensure these standards are upheld. This is why Vision Engineering, in addition to 125 staff at manufacturing sites and HQ in the UK, Vision Engineering has around 150 staff members based outside of the UK, and 90% of the business is in export – the big companies have supply chains located around the world, so we need to ensure we have a global



network of capable engineers to provide consistent levels of support no matter where a customer is. At present our biggest markets are North America, the EU (particularly Germany), but with China and South East Asia catching up fast."

Indeed, Vision Engineering has remained sensitive to the fluctuating demands of its customers for over 60 years. 15 years ago, there was a focus on the electronics industry where there was a need to remove toxic metals from its products. Changes from heavy metals to non-lead resulted in a range of manufacturing challenges for electronics manufacturers, which Vision Engineering was able to help analyse, inspect, measure, resulting in minimised disruption to quality and throughput. Any changes to a technological process can create a host of challenges, and Vision Engineering helped companies to address these.



Now, there are developments in the automotive sector, which is moving towards electric, hybrid or cleaner combustion engines. Furthermore, in the medical industry, there is a focus on developing biological materials for coating implants and on bone reconstruction technology, while in sustainable energy there is lots of work being done on efficiency, storage and usage of renewable energy sources. "When somebody enters a new technological process, it poses challenges as a company needs to meet new standards. Vision Engineering can help whenever a customer is trying to push the technological envelope.



"We always attend numerous trade shows, in a wide variety of vertical sectors, to stay abreast of the industry, discover issues and then develop our technology to address them. We invest heavily in our Research and Development to ensure we consistently deliver what our customers need. For example, the latest trends are towards haptic engagement. Haptics is a concept, largely driven by German leading manufacturers, which emphasises the need for a user to engage on a sensory level with the instruments they are using. This can be through soft touch, optimally located controls, or through sight and sound. Our latest products focus on user interfaces, including haptic technologies."

The company's flagship product, the Mantis, was the world's first stereo microscope without an eyepiece, designed to fill the gap between a bench magnifier and a microscope. This was a major ergonomic revolution, and it went on to win numerous design and innovation awards. Mantis became the new benchmark for high performance stereo magnification, and since then, Vision Engineering has made constant improvements to the technology to keep up with changing demands, and is currently in the process of developing the fourth generation of the microscope.



In line with the Company strategy of addressing the latest technological trends, Vision Engineering has recently been focusing on the global drive towards Virtual/Augmented Reality and communication of Real Time information. The wide interest in the Internet Of Things (IoT), Industry 4.0, Blockchain and the development of 5G is driven by the need to have accurate, comprehensive information, which can be communicated anywhere within a global multinational operation, around multiple location supply chains, or between centres of excellence

Three months ago, Vision Engineering launched its Deep Reality Viewer, DRV-Z1, the world's first 3D stereo viewer for which the company has global patents. DRV addresses the disadvantages of sensory isolation and disorientation, meaning users can work more comfortably, for longer, wear their own prescription glasses and interact freely with their colleagues onsite. In addition, communication over wired or wireless media enables users to interact, in real time, with their colleagues or reference sites who are elsewhere, even in other parts of the world. Manufacturing sites will now be able to share best practice, fault finding/troubleshooting and consult, looking at the same, live, real-time images.



The DRV-Z1's stereo digital image without headsets or specialised glasses provides a natural 3D view, with a high definition resolution to enable better quality inspection. Without the need for special glasses/headsets, Vision Engineering's unique device allows freedom of head movement, natural subject view, comfortable working position, easy hand-to-eye coordination, and the ability to wear prescription eye glasses.

"After launching the DRV earlier this year, it has been taken with great interest around the world, with initial sales on a global scale. This was the first device in a family, and we have a five-year plan in place to exploit this patented core technology in a variety of situations. The first two devices were directed at our current markets, and now we are developing the range to make it appropriate for a broader range of markets, such as in drone and satellite scans and MRI scanning. It's all about exploiting the technology in different forms."

The Deep Reality Viewer R&D programme took three years and was supported by significant Innovate UK R&D & market analysis grants.

Indeed, Vision Engineering has a constant rolling programme of various projects to ensure they are always addressing the pertinent challenges within various industries. "We are confident about what the next 12 months will bring and the selection of new products we will be releasing," explained Mark.

"High end manufacturing needs high end facilities", stated Mark. "To this end, two years ago we built from scratch and have now occupied state of the art R&D,



manufacturing and Global HQ facilities of 84,000ft<sup>2</sup> in Woking, Surrey. Being able to design and build a facility meant that we could incorporate the latest Lean manufacturing techniques and full development and testing labs. It enabled us to compete on the world stage and means that we now have a total of 130,000ft<sup>2</sup> of modern, full service manufacturing space, which includes a wholly owned factory in Connecticut, USA."

As well as an unwavering dedication to product advancement, Vision Engineering is committed to the ongoing development of its expert staff, focusing on staff retention and running active apprenticeship schemes to teach a full range of skills to budding engineers.

"We are also increasing the drive of our e-marketing and social media. We have recently configured our website to be used on mobile devices as well as computer screens – our stats showed that an increasing number of people were accessing our site using a mobile device, so we put motions in place to ensure they were getting a valuable experience from visiting our webpage, no matter what device they were using. There are also more people using social media, and so we are utilising this to help our customers stay abreast of our products even when they're not looking for them. This means they remain aware that Vision Engineering is constantly working and researching, with innovative products in the pipeline that may be of value to them. To add to this, we are producing webinars to provide flexible and interactive information which can be in front of both potential and existing customers immediately."

Certainly, it is clear to see how Vision Engineering is remaining at the forefront of innovation and cementing its status as an industry leader. "It's great to receive this Company of the Year award," concluded Mark. "The interesting thing is that it's also great internally; it's good for people to feel like the broader world is taking note of their hard work."

**If you would like to find out more information, head to the website or use the contact details below:**  
**T 01483 248300**  
**www.visioneng.com**



# Production gundrilling of track pins

**W**illiam Cook is a UK manufacturer of track running gear for armored vehicles. Their relentless drive to engineer, test, and produce the best products in this category has propelled them to their position as a global industry leader. William Cook is the main supplier of vehicle tracks to the British Army, in addition to having their products on the majority of armored fighting vehicles worldwide.

These vehicle tracks include a key component – track pins – which are designed to endure intense wear and tear from large, fast moving vehicles on uneven terrain. Components are produced to be strong, lightweight, and

durable – at enormous production volumes. The material used is challenging to machine, and the combination of design and production demands leaves no room for compromise. Track pins have a deep hole throughout the length of the part, which William Cook had previously been sending out to be gundrilled. A company-wide initiative to further modernize production provided plant systems engineer Brian Birkett with the responsibility of not only bringing the process in-house, but to also educate himself and his team on the foundations of deep hole gun drilling.

**Confidence begins with education**  
Deep holes exist in the majority of industries, and many

manufacturers such as William Cook encounter these applications, typically considered holes with a depth-to-diameter ratio of 20:1 or greater. When manufacturers are inexperienced with the process and equipment, the specific challenges can seem intimidating to go through alone. However, deep hole drilling uses modern tools, machines, and technology and follows proven methods. With the right partner and experience, in-sourcing the process and planning for long-term gundrilling success is easily manageable.

The team at William Cook initially brought their application to UNISIG for a machine solution, but according to Brian, UNISIG provided more than just a



recommendation. UNISIG's technical team provided in-depth foundation information about the gundrilling process, available tooling, and the right machine to meet their needs.

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# UNISIG

## UNISIG TAKES YOUR GUNDRILLING PRODUCTION FURTHER

Brian and UNISIG discussed a heavy duty, multi-spindle gundrilling machine, designed to maximize the production potential of high-feed indexable gundrilling tools. Following this initial proposal, the team visited the Wisconsin, USA facility to see the process and machines first hand, meet with the technical team to review the application in detail, and learn what goes into the precision of UNISIG machines.

“UNISIG’s knowledge of how our application would benefit from indexable gundrilling was influential in our decision to go with them” he stated. “They clearly explained what we needed to know, addressed all the questions we had, and brought confidence in what ultimately was our solution.”

Brian went on to explain that the combination of process, plus procedure, plus expertise contributed to their first-class experience with UNISIG, throughout the entire process. He praised the team for immediately being able to recognise and understand the demands of the application, and do a thorough job of presenting a solution – one which has lived up to expectations.

**Intuitive and powerful**

The UNI-25HD machine at William Cook is currently running full production with three products, and plans to expand their part lineup. The machine is surpassing William Cook’s expectations for required cycle time, with the high gundrill feed rates and multiple spindles, made possible with matched power and torque requirements on the machine.

Loading automation is seamlessly integrated to maintain a steady production pace with less operator effort. Brian believes that they have a solution that is perfectly aligned to their part and performance requirements.

“The machines are perfectly paced to keep up with production. The machines do exactly what was promised. UNISIG knows what they are talking about, and our expectations are exceeded.”

Brian also praised the ease of operation, with UNISIG’s standard PLC interface and a thorough training session, allowing the team to feel completely confident with deep hole drilling. The straightforward operation allows them to set up their program and let the machine do the work, while operators monitor the process and look for improvements. “It’s such a benefit. It’s so easy to learn”, he commented.

Overall, the initial payback from the investment is expected to take place within 2-3 years, according to the team, and the long-term impact will be substantial.

**Support feels close to home**

Having close support post-installation was another priority to William Cook. Partnering with an international supplier can sometimes create distance, but this was not the case with UNISIG. Technical support teams are quickly able to access the machine and the operating staff to diagnose and troubleshoot, even when remote. The technical support from early on in the sales process, to responsiveness after installation has set UNISIG apart from others.

“UNISIG’s service team responds quickly to take care of any issues, just as if we were next door. Support feels close to home.”

Brian’s confidence with the UNISIG machine and partnership has influenced William Cook’s long-term reliable production, and a modern solution that aligns with the future of their company.

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## Pentagon Plastics Group Ltd purchases additional 12,000ft<sup>2</sup> freehold

Pentagon Plastics Group has secured the freehold on an additional 12,000ft<sup>2</sup> of manufacturing space in its latest drive to improve its service and manufacturing facilities.

Horsham-based Pentagon completed the purchase of the adjacent factory, which is home to Phoenix Engineering 2009 Ltd (also part of the Pentagon Plastics Group), and a collection of smaller businesses.

Pentagon says acquiring these facilities adds to the freehold of the plastics moulding site and the group now owns over 25,000ft<sup>2</sup> of operational space.

"This has been a long-term goal and marks the start of another exciting period within the organisation," explained Managing Director, Paul Edwards.

"Cultivating a measured plan of investment for the two facilities we will deliver additional capacity for our plastic injection moulding and toolmaking services, allowing us to grow as a medium size employer within the local

# PENTAGON PLASTICS GROUP

area. We strive to deliver customer satisfaction, be a proactive member of the supply chain and enhance our business services to the benefit of our customers."

The £750,000 investment was self-funded through working capital and Pentagon says this is testament to the ethos employed by the owner, management and staff across the facilities.

T 01403 264397



## 3M BIC unveils new advanced technologies

The 3M Buckley Innovation Centre (3M BIC) in Huddersfield now provides a holistic approach to product development, allowing businesses to design, make and measure products through new technology such as metal additive manufacture (AM), imaging and microscopy.



New equipment includes, two selective laser melting (SLM) systems that can print in stainless steel (316L) and titanium, as well as advanced in-process monitoring abilities to view and analyse a build for consistency or anomalies in real-time.

Its new Zeiss Imaging Suite boasts microscopes for biological studies and part investigations such as surface roughness and topography characterisation, as well as X-Ray CT for the precision measurement of internal and external features and identifying anomalies in products.

Michael Wilson, 3M BIC general manager and HIIP director, said, "We now offer the whole package, from prototyping in plastics and metals to correcting imperfections in products. Businesses can ensure new products are cutting edge and safe before embarking on large scale production."

The new equipment is part of investment through the Huddersfield Innovation and Incubation Project (HIIP), a £2.9m grant from the Leeds City Region Enterprise Partnership (LEP) Growth Deal – a £1bn package of government investment to accelerate growth and create jobs across Leeds City Region.

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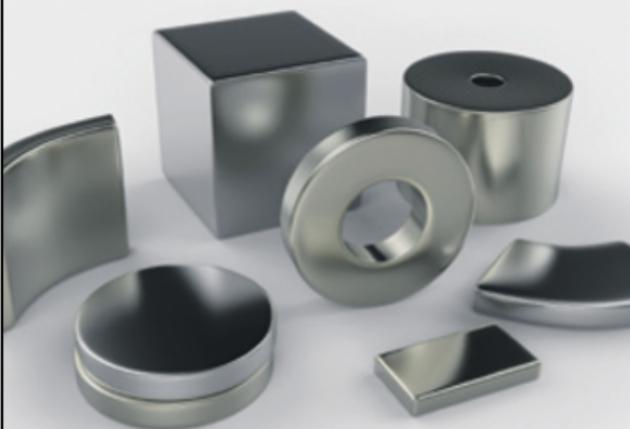
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E/M Coating Services is a business unit of Surface Technologies, a Division of Curtiss-Wright, who are global specialists in surface treatments to improve the life and performance of critical components and preventing premature failures through their network of over 75 facilities worldwide. [www.cwst.co.uk](http://www.cwst.co.uk)

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## New Anti-Corrosion Coating for Rare Earth Magnets

Neodymium Iron Boron magnets are utilised in a wide number of industries, including the highly demanding wind turbine industry.

A multitude of these magnets are bonded together to increase the overall level of magnetism. This process leads to two potential issues: firstly, any adhesive or coating between the magnets acts as an air gap and thus reduces the level of magnetism and secondly NdFeB magnets corrode extremely aggressively. This corrosion issue is exasperated by the environmental conditions that the wind turbine faces.

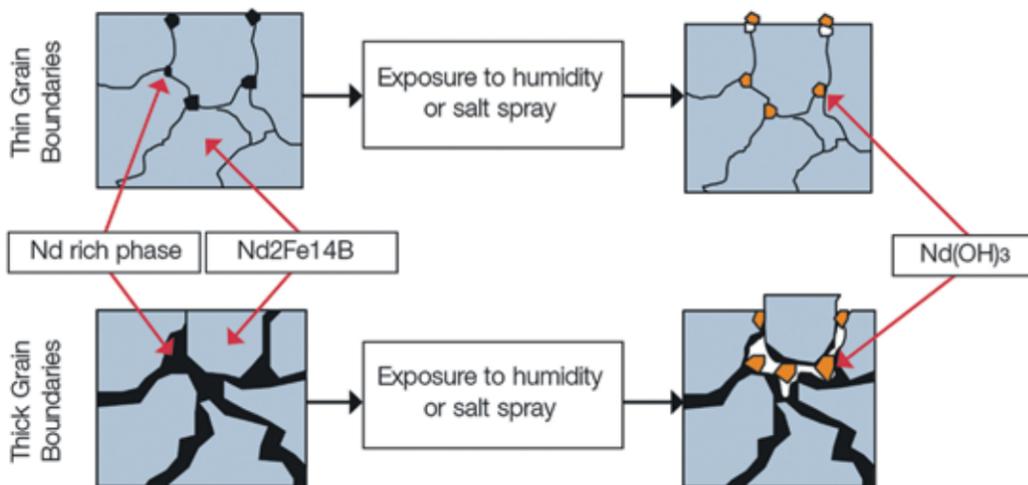
This corrosion mechanism for NdFeB magnets is detailed in figure 1. This shows that when exposed to water or humid conditions, the Neodymium rich layers at the grain boundaries react to form Neodymium Hydroxide. The effect of this conversion from Nd to Nd(OH)<sub>3</sub>, is a large volume increase along the grain boundaries, leading to

cracking and degradation of magnet properties.

Curtiss-Wright Surface Technologies (CWST) has been working on a solution to these issues. This involved developing a high grade anti-corrosion coating with minimal coat thickness (effective air gap). The current market leader for corrosion protection is CWST's own Everlube 6155 providing 500 hours protection in the ASTM B117 salt spray test.

After extensive studies and trials, CWST is pleased to announce it has successfully developed a coating system which will provide 1,000 hours salt spray resistance for NdFeB magnets at a coating thickness of just 25µm. This NEW coating system – **Everlube 1155** is environmentally friendly, easy to apply and a cost effective solution to this critical problem. **Please call on +44 (0)1386 421444 for further details.**

Figure 1: Shows the corrosion mechanism for NdFeB rare earth magnets.



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