Plastics: in or out?

Our feature this issue is called: A world without plastics? in which we report on how equipment is being developed to deliver customer demand to reduce, reuse or recycle...

NEWS

The new business solutions team at SMC is offering a free, no obligation health check on companies processes across machinery safety, resources, development and productivity.

NEW MACHINERY

A range of capping machines has been developed by ATS that it says, includes the most advanced cap tightening technology on the market to give customers new benefits. Find out more on page 12.

INSTALLATIONS

A craft brewer in Ireland has installed a compact, multifunctional filling system.

PLUS

The UKIVA’s Machine Vision Conference and Exhibition has gone online with nearly 40 companies presenting new ideas. www.machinevisionconference.co.uk
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As MVC has sadly fallen foul of continuing C-19 restrictions, presentations will go online in a new Technology Hub this July

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It is hard to imagine a world without plastics and the benefits that these materials bring to many sectors of manufacturing industry. However, it certainly isn’t beyond the realms of possibility to think about a world with considerably less plastics being used to package our everyday goods.

This is because we can see this happening already through the constant announcements from big brands about their switch out of plastics packaging or to a mix of paper and plastics or to recycled plastics and everything in between. And these announcements come every day as fast moving consumer goods manufacturers grasp the nettle of sustainability and put the circular economy at the heart of their corporate thinking.

In this issue of Machinery Update you will find a feature called A World Without Plastics? in which the important role of machinery manufacturers is examined in delivering these ‘green’ objectives across a plethora of product sectors, and across a whole range of packaging material choices.

PPMA members are now part of the innovation pipeline in helping to crack the plastics issue

In this feature, you will find almost wholesale agreement that demonising plastics, which still offer a whole host of benefits (even environmental), is probably not the answer to the ongoing debate. But it is fair to say that the pressures being felt by companies that continue to use plastics packaging has led to a welcome reduction in single-use plastics along with a host of other innovations.

For instance, the many new types of plastics trays that have been developed for products such as meat and fish can only be successful if the packaging equipment can run them efficiently and economically. To this end, there has been a sensible move for materials and machinery companies to form closer alliances.

The pressures being felt by markets continuing to use plastics packaging – fizzy drinks, for instance – has led to more widespread use of post-consumer recycled content, while looming regulations such as Deposit Return Schemes are also having an effect on the market.

To this end, we have talked to Coca-Cola European Partners whose views will be expanded on at our PPMA Show in September (28-30 at the NEC, Birmingham), where the company will deliver one of our keynote addresses.

In any case, we should surely be fighting against all waste – both food and packaging – and not just plastics.
The Minebea Intec weigh price labelling family is growing. We brought you the WPL-S and now we’re excited to bring you the WPL-A, increasing product quality, food safety and efficiency, automatically!
Two companies have joined forces to offer more cobot options

Omron Industrial Automation Europe has signed a new distribution agreement with OnRobot, the Danish manufacturer of tools for collaborative robot (cobot) applications. This will allow it to offer OnRobot’s products – which can be fully integrated with its own Omron TM cobot – to its customers in Europe, the Middle East and Africa.

The agreement between the two companies is designed to give customers greater agility when implementing collaborative solutions that are often seen as one of the most effective ways of boosting the performance of lines.

The PPMA will be organising the UK pavilion in Dubai

Gulfood Manufacturing will take place in Dubai from 7 – 9 November this year, organised by Dubai World Trade Centre and structured by country pavilions of which the PPMA has been appointed UK Group co-ordinator. In this role, the leading trade association is offering any interested UK companies wishing to exhibit a ‘walk on stand package’.

Billed as the biggest food & beverage processing and packaging industry event for the region, the exhibition covers ingredients, processing, packaging, automation & controls, printing & labelling, supply chain solutions and warehouse management technology.

NEW DISTRIBUTION & STOCKHOLDING WAREHOUSE

Expanding to secure supply

Samuel Grant Packaging has announced expansion plans that will see it build a new 40,000sq ft distribution and stockholding warehouse in the Logic Leeds logistics hub that neighbours its current headquarters. Joint md Andrew Grant says this move will help it continue to supply packaging materials, even those that have been in short supply.

This year’s Technology Presentation Hub will go online from 15 July

This year’s Machine Vision Conference & Exhibition (MVC) will run as an online programme following the decision to cancel the original event due to ongoing COVID-19 travel restrictions (specifically those within the EU).

The Technology Presentation Hub will go live on 15 July where nearly 40 companies will deliver presentations. The platform is free to register and offers users ease of navigation to an array of audio/visual presentations across eight theatres.

“Our Hub generated plenty of interest and feedback last year, so we expect this year’s event to follow suit,” explains Neil Sandhu, chairman of organisers the UKIVA. “The advancement and rapid deployment of thermal imaging and deep learning capability during the pandemic are just two topics that will be covered.”

Queen’s Award for Enterprise, awarded for export prowess

ALS Mechatronic is one of the 205 organisations nationally to be honoured with a Queen’s Award for Enterprise, which recognises the automation company for its excellence in international trade.

The company’s award recognises it for outstanding short-term growth in international markets which has shown consistent year on year growth in the last three years. Overseas sales have grown fivefold in its leading markets of Qatar, Mexico, Ireland, the USA and Poland. Indeed, the US growth rates have culminated with the company opening its own direct sales office in Texas.

British Legion orders bespoke automation

Sewtec Automation is designing and manufacturing a bespoke automation system for the Royal British Legion’s poppy production facility. The new machinery will automate the assembly of the paper poppies, transforming reels of paper and pre-made stems into the two-petal poppy worn by millions of people each year.

A new machine will deliver poppies
Collaboration will bring unified robot control solutions for users

A utomation and digital transformation company Rockwell Automation and industrial robot manufacturer Comau are joining forces to give businesses vital tools to maximise manufacturing efficiencies through unified robot control solutions.

“Industrial companies are looking for efficient ways to integrate robotics into their operations for process optimisation and agility,” says Rockwell Automation chairman and ceo Blake Moret. “Rockwell Automation’s collaboration with Comau will simplify programming and lifecycle management, accelerating time to value for customers.”

PERFORMANCE GAINS

Moret said this expansion of robotic applications is rooted in Rockwell’s broader strategy to help industrial companies save time and improve performance with unified robot control, ultimately providing long-term value for their business.

“Comau’s robotics and industrial automation expertise, as well as its reputation for high performance, reliability, and quality, combined with Rockwell Automation’s global capabilities and experience in automated materials handling, food and beverage, household and personal care, and life sciences, give customers the incremental value of an integrated robot solution,” explains Comau ceo Paolo Carmassi. “Comau is eager to work with such an important partner that has a market-leading global footprint in all industries.”

Engineers will now be able to program their entire machine in one environment.
Collaboration will bring unified robot control solutions for users

The training team can be contacted for business solutions. The new business solutions team at pneumatic and automation technology company SMC is now offering companies a free, no obligation health check on manufacturing processes. This new team is composed of experienced specialists and can offer help in the following areas:

- Machinery safety
- Energy and resource management
- Learning & development
- Productivity.

SMC says the correct techniques to increase productivity is the goal in a business environment. It is a major factor in economic growth, and responsible for technological advancements in machine and process automation.

The free health check will be conducted by the relevant SMC specialist who will provide a structured guide in helping to achieve efficient manufacturing processes. It will establish a company's current status and target requirements. It will then provide a free no obligation report on findings and recommendations.

Peddling his way to fundraise for cancer

Regional sales manager at Ulma Packaging UK Oli Earley has raised nearly £600 for Cancer Research UK by cycling around his local area each day to rack up 300-miles in a month.

He did this in honour of his nan, who sadly passed away from the disease last year.

Foodex 2021 is set to go ahead this July at Birmingham’s NEC

As Machinery Update went to press, organisers of Foodex said it had created a 10-point plan to help give visitors the confidence to return to the NEC, Birmingham for the exhibition, which is due to take place from 5 – 7 July.

Organiser WRBM has worked closely with the Association of Event Organisers in developing industry wide AllSecure Standards, designed to provide the highest levels of hygiene and safety for visitors and exhibitors, allowing its shows to operate effectively and safely according to guidance.

The event is designed for processing, packaging and the logistics sectors.

Machinery showroom demonstrates options

Engelmann & Buckham (E&B) has opened its new showroom which has been built in a converted area of its engineering warehouse in Petersfield, Hampshire.

“We had been considering building a showroom in the UK for a while,” says Michael Lindsay, managing director at E&B, “so when the pandemic hit, we decided it was a great opportunity to go ahead”.

The new showroom will showcase a cross section of packaging machinery including a stand-up pouch machine, a flow wrapper and a sachet machine, while the Norwix inkjet range will also be running on some of the equipment. For customers who need to finalise their packaging materials, there will also be an opportunity to see different packaging options.

“Where possible, we aim to show customers their products running on the equipment in the showroom,” explains Lindsay. “It will show a range of different options across the complete packaging process all under one roof.”

Smart hub promotes technology to offer food and drink gain

A new Smart Packaging Hub is the brainchild of seven companies, including PPMA members Baumer, Cama and Clevertech, which is designed to offer visitors from the food and drinks industry a raft of information about the performance of packaging machinery designed to meet a range of end user needs.

Visitors to the facility will see the build quality and footprint of machinery

Visitors to the facility will see the build quality and footprint of machinery
Machine builders have a legal obligation to protect systems against electrical interference and meet EMC requirements, however, there are specific requirements for fixed installations...

All new machinery within the scope of the EU’s Machinery Directive and the UK’s Supply of Machinery (Safety) Regulations 2008 must be designed and constructed to meet the requirements of the EMC Directive (2014/30/EU) and Electromagnetic Compatibility Regulations 2016, respectively. If a machine’s control system experiences electromagnetic interference, it may malfunction. Conversely, if the electrical and electronic systems fitted to a machine generate a high level of interference, it may cause other equipment nearby to malfunction. This is why machine builders have a legal obligation to protect systems against electrical interference and meet EMC requirements.

The essential requirements state that equipment must be designed and manufactured to ensure that:

a) The electromagnetic disturbance generated does not exceed the level above which radio and telecommunications equipment or other equipment cannot operate as intended.

b) It has a level of immunity to the electromagnetic disturbance to be expected in its intended use, which allows it to operate without unacceptable degradation of its intended use.

However, there are some specific requirements for fixed installations. A fixed installation is defined as “a particular combination of several types of apparatus and, where applicable, other devices, which are assembled, installed and intended to be used permanently at a predefined location.”

A word of caution is that large installations may fall under the definition of a fixed installation, as Article 3 in the directive, and under interpretation in the regulations, includes the following definition: “...a particular combination of several types of apparatus, and, where applicable, other devices, which are assembled, installed and intended to be used permanently at a predefined location.”

The UK regulations include specific requirements for fixed installations. For example, a fixed installation must be installed applying good engineering practices and respect the information on the intended use of its components, and meet the essential requirements set out in points (a) and (b) above. All of this information must be documented and held by the designated ‘responsible person’, so that it can be made available to the enforcement authority at their request. Operators of fixed installations must identify the responsible person before it is taken into service. UK regulations define a responsible person as one who holds a position of sufficient responsibility to control the configuration of the fixed installation. However, they do not have to be an EMC expert, as they are allowed to seek advice.

We would therefore advise that an EMC management or test plan is developed for any fixed installation and machinery owners would be well advised to contractually agree to an EMC management plan.

Machinery owners must ensure that the equipment their employees use is EMC compliant for safety.

Machinery owners must ensure that the equipment their employees use is EMC compliant for safety, as is reasonably practicable, be safe and without risks to health. In the context of EMC, in most applications it is the electromagnetic immunity of equipment for the environment it is placed into that is of interest in relation to Section 6 of the HSW. If it is reasonably practicable to carry out testing for immunity to electromagnetic disturbances, the HSW requires this to be carried out.

Section 10 of the Provision and Use of Work Equipment Regulations 1998 (PUWER) states that “every employer shall ensure that an item of work equipment has been designed and constructed in compliance with any essential requirements”. Owners must therefore ensure their equipment is EMC compliant.
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Capping machine launch gives users cost-effective technology

A TS has developed a range of capping machines that it says, includes the most advanced tightening technology on the current market. In five months, the company has designed, developed and commissioned a linear capping machine that, as well as offering tightening advantages over traditional equipment, also offers user advantages in container handling along with the sheer scale and variety of container types that can be handled.

This development started when ATS was contacted by a cosmetics company who wanted a more flexible capping solution and one that could handle frequent product changes. SMC Cosmetics also wanted minimal change-part costs, the capability to tighten screw caps, push-on caps and dispensing pumps, and for a large number of container sizes ranging from 50 ml to 1000 ml to be handled.

The new machine is designed to offer maximum flexibility and can be equipped with between 1 to 8 capping heads. It achieves speeds of up to 80 packs a minute, depending on the type of container handling system that is selected. The machine is also available with Ex, FDA, CGMP and UL certifications to allow it to be used across all industrial packaging sectors. According to Richard Aitchison, technical sales & product manager at the Packaging Equipment Division of ATS, traditional rotary capping machines can cost up to £125,000 with servo-controlled versions costing at least twice as much, and then change-parts can cost upwards of £25,000. “Our new capping system therefore provides a superior return on investment for manufacturers that require frequent changeovers and have constantly evolving product launches leading to expensive change-part requirements,” he says.

As with all ATS packaging machinery, this equipment has been developed using the latest Siemens machine control technology and is also supplied with a range of remote diagnostic and service support packages.

Fully programmable torque, speed, applied force and vertical positioning of the capping head is offered, as is ‘track and trace’ capabilities as every closure tightening operation is recorded. As for handling advantages, the machine can be mounted over existing conveyor systems and also moved between different production lines, if required.

As for handling advantages, the machine can be mounted over existing conveyor systems and also moved between different production lines, if required.

Smaller, more flexible and versatile robot is designed to boost all round productivity

Yaskawa continues to expand its range of industrial robots with the focus on smaller, flexible options which are designed to meet the rapidly changing manufacturing environment.

The new MOTOMAN GP4 6-axis small industrial robot meets new market requirements and is a natural fit within the established range of Yaskawa smaller robots. It provides a payload capacity of 4 kg, a maximum reach of 550 mm and, says the company, represents a good example of a compact and versatile robot ideally suited for assembling, transporting, boxing, sorting and inspecting small parts in industrial applications.

Yaskawa says the GP4 achieves the highest performance in its class with a 163% faster synthesis speed as a result of the increased maximum speed capacity of each of the 6 axes (compared to the previous Motoman-MH3F model). This reduces the tact time and contributes to improving customer productivity. Thanks to maximising its reach, the effective motion area in the vicinity of the robot is expanded, helping to improve accessibility to the workpiece while saving valuable space.

It benefits from a dust-proof/drip-proof smooth arm surface including all 6 axes which meets the international protection code rating of IP67.
A Test before you Invest inspection service expands its material choices

Mettler-Toledo Product Inspection has added two new inspection lines into its European Test Centre in Barcelona, Spain to address the growth in the use of metal and glass packaging materials in the food industry. This Test Centre provides free product evaluation and assessment services to food manufacturers to ensure they are using the right inspection technology for their specific production lines. The expansion of the programme aligns with packaging industry trends pointing to the growth of glass packaging in Europe. Growth is also projected in the metal can market. Sustainability, recyclability, and ease of transportation are just a few of the factors contributing to the growth of metal and glass packaging, says Mettler.

To replicate the inspection of products packaged in glass and metal for physical contaminants and packaging defects, the latest x-ray inspection technologies added to the Barcelona test centre include the X3730 and X3750 systems.

The company is also looking to include units for label verification and product data check technology in the future. www.mt.com/pi-test-centers-pr

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Sorting system delivers benefits for goods offered in eCommerce

Interroll has added a new drop tray sorter to its range which is designed to make it easier for companies to enter the eCommerce market or, as a flexible addition to existing sortation solutions in sectors such as the fashion industry, the pharmaceutical industry and also for parcel service providers.

At the same time, the company has also introduced a new Belt Curve which allows even smaller conveyed goods to be transported quickly and safely across a site.

The new Split Tray Sorter MT015S ensures maximum availability, very long service life, and fast payback times for the automatic sortation of conveyed goods weighing up to 12 kg. This makes these compact and flexibly expandable systems particularly suitable for system integrators who want to enable their customers to implement eCommerce or omnichannel strategies that are powerful as they are economical in the fashion or pharmaceutical industries.

In addition, the new Split Tray Sorter in combination with Interroll’s crossbelt sorters provides logistics service providers and courier, express and parcel service providers with an ideal solution for making customer-oriented distribution centres even more productive by efficiently separating small parts sortation from other goods being handled.

And this new product has been designed to be delivered in short lead times. “Because short project lead times give our customers a decisive competitive advantage, we focused not only on technical performance and quality but also on very short delivery times for our customers,” explains Steffen Flender, md of Interroll Automation GmbH.

The new unit also offers the ability to flexibly adapt the system to changing material flow processes thanks to its modular expandability. In addition, the supply of goods to the sorter can be easily automated by the optional Interroll Top Loader.

Meanwhile, the company’s Belt Curve 1200 is said to offer all of the quality and efficiency benefits of a frictionless drive concept while improving the conveying performance of smaller goods. This is because cylindrical deflection rollers have been integrated for the first time, significantly reducing the distance between the connection and the following conveyor.

The Belt Curve 1200 is launched and is characterized by maximum availability and fast payback for products up to 12 kg in weight. It ensures not only technical performance and quality but also on very short delivery times for our customers.

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The latest ROEQ mobile robotic equipment allows RARUK Automation to team its range of MiR (Mobile Industrial Robot) autonomous mobile robots (AMR) with handling accessories to meet customers’ individual application needs. AMRs can now be customised with bins, racks, lifts and conveyors and several new products have now been added to the range of available options.

RARUK Automation offers a fleet of the flexible and easy-to-program collaborative AMR from MiR for the transportation of both heavy and light loads that help industry increase operational efficiency. Collectively, the new ROEQ products complement the entire range, says the company.

The four new top roller modules are the TR125 Manual 250 for the MiR250 robot which allows for manual height adjustment. With the TR125 Auto 250, goods can be picked up and dropped off at different heights thanks to its automatic scissor mechanism.

While the TR500 Auto and TR1000 Auto provide the larger MiR models with a built-in lifting mechanism. All the new roller modules are naturally GuardCom compatible, the new ROEQ wi-fi free AMR communication system.

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Horizontal bag packer is designed for eCommerce

M
anufacturer of automated bagging technology Autobag has launched a brand new bag packing solution specifically designed for the eCommerce sector. The Autobag 650 Horizontal (650H) is the latest development from Sealed Air brand Autobag and is described as ushering in a new generation of high-quality, reliable and flexible wide-bag packaging solutions. Manufactured to support eCommerce returns processing, inbound bagging and single or multi-line ecommerce fulfilment, the key benefits of the Autobag 650H include its compact design and user friendliness.

Its compact design minimises the floor space required while its horizontal configuration guarantees label-up orientation with every use, says the company.

This new solution is capable of running 400 mm-wide bags and features a large load area for order prep and bulk product queueing which has been ergonomically designed to shore-up efficiency and productivity throughout the bagging process. With quality front of mind, the 650H also includes advanced sealing technology that is temperature controlled to ensure consistent, high-quality seals. The system has been designed for use with genuine Autobag pre-opened bags that can be made with recycled content.

What’s more, its simple machine design minimises the need for operator training – making it the ideal choice for eCommerce environments that rely on agency staff and seasonal labour. “We’re incredibly excited to be launching the Autobag 650H to the UK market,” says Duncan Hall, commercial director at APS. “With fewer moving parts, we have been able to manufacture a solution which reduces ownership cost while improving reliability, with on-board diagnostics as standard to give users ultimate piece of mind.”

For more information on this story, see our eBulletin for April on our PPMA website.
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Tray sealers come with future proofing as part of the design

Tray sealing company Proseal’s longstanding commitment to ensuring the longevity and continuing reliability of its equipment provides the basis for the company’s ‘No Good Machine Left Behind’ initiative. The company seeks to upgrade the many older machines that are operating at customer sites throughout the world that allows these clients to benefit from its latest performance enhancements and, equally important, prevents unnecessary downtime or, worse still, machine obsolescence through the unavailability of essential parts and service support.

‘No Good Machine Left Behind’

“At Proseal, we have always prided ourselves in providing a fast quality service to all our customers,” explains Daryl Henshaw, key accounts manager at Proseal. “This can become more challenging with older machines, where the potential discontinuation of vital components could mean a simple part replacement now requires a much more comprehensive and time-consuming upgrade.

“It is therefore much better that such an upgrade is carried out in a planned fashion,” he says. “With ‘No Good Machine Left Behind’, we are delivering both enhanced performance benefits and complete peace of mind to customers.”
Industrial robot range is delivering cost benefits

As part of the new generation of the KR CYBERTECH nano robot series, KUKA is introducing its ARC family of industrial robots to deliver maximum performance at minimal costs for continuous-path applications such as arc welding, adhesive bonding or sealant application.

The KR CYBERTECH nano ARC product family is agile, fast and more precise than its predecessors in continuous-path applications.

The upgraded 50 mm KUKA hollow wrist reduces main axis motion, allowing short cycle times combined with precision in motion.

These new robots feature repeatability of 0.04 mm, even at high speeds.

At the same time, the series is characterised by its long service life and low maintenance requirements in the low payload category.

KUKA says the total cost of ownership is reduced to a minimum which is based on the maximum availability and reduced energy consumption compared with its predecessor.

In addition to the drive and control technology, the service and maintenance requirements have also been optimised. Individual axes, for example, are completely maintenance-free and spare parts are available for up to 25 years, explains KUKA.

The robots can be used for a broad spectrum of applications: thanks to the small footprint and diverse installation options, they are also suitable for compact cells, complex tasks and challenging process chains.

Additional flexibility is provided by the ‘K-PIPE-ES’ energy supply concept with which KUKA customers in higher payload categories are already familiar. Separation of the system and application cabling makes integration into the production environment even easier and the equipment of the energy supply system more flexible.

Folder has an A80 delivery system

Anniversary offer of a special edition combi folding unit

The MBO Group is celebrating the one-year anniversary of its acquisition by Komori with the launch of a special edition combi folding machine.

Supplied in the UK by Friedheim International, the new K32 KSE machine is available for a limited time (until 31 August this year) with a comprehensive equipment package. It is available as either a manual or automated folding machine which allows users to slot the folder into its production process with ease.

A complimentary remote maintenance service is included in the package, as is an additional set of transport belts in both of the models; two each in the cross fold and in the three-fold.

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The Krones Group has developed a multipurpose filler that handles glass bottles, PET containers, and cans for the first time. The Barifill Canto has been developed by Italian subsidiary Kosme to offer smaller craft breweries and wineries the greatest possible flexibility in container choice without requiring them to invest in three different filling machines. The new unit can fill beers, carbonated soft drinks (CSDs), sparkling water, and sparkling wines in a variety of can types and sizes, and also handles PET containers or glass bottles – the latter in both the classic wine bottle format and the long-neck bottle used for beer and CSDs.

This flexibility is delivered by a special filling valve. Kosme has taken the best features of its existing Modulfill series filling systems and combined them into a single valve. The valve is equipped with a level probe for filling bottles and a volumetric system with an inductive flow meter for cans. To reduce the space required, the container sealers are also integrated into the filler: a Krones Modulseam for cans and a Kosme crowner for glass bottles. As an option, plastics screw caps for PET and roll-on aluminium caps or corks can be handled on the unit.

“The Barifill Canto is as flexible in terms of speed as it is in its applications,” explains Tom Miller, technical sales manager at Krones. Depending on the product and the configuration, it fills from 1,200 bottles or 2,500 cans per hour on the smallest layout up to 9,500 bottles or 16,000 cans per hour on the largest setup.

Drawing on its experiences as a manufacturer and employer, Festo has been running training courses that take engineers through the fundamentals of pneumatic system design and operation. It has recently added a new course, available from July 2021, that focuses on troubleshooting and fault diagnosis to further improve skill levels in the pneumatic systems arena.

“The performance of pneumatic systems in industry directly impacts overall equipment effectiveness, productivity and competitiveness,” explains Hakan Emince, head trainer for Festo Didactic. “Our new course, Troubleshooting and Maintenance in Pneumatics, offers attendees an introduction to common mistakes, fault finding, maintenance and inefficiency in pneumatics.”

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Omron has developed a fast redeployment solution for machine tending collaborative robots in the form of its new Mobile Cobot Workstation.

Incorporating fully-integrated landmark functionality, it has been designed to address the issue of under-utilisation that can render automation impracticable for high product mix manufacturers and SMEs.

By enabling cobots to be redeployed on different tasks with minimal reconfiguration, this agile automation solution accelerates return on investment and makes it a more viable option.

“Cobots are no longer a rarity on the production floor, but they are limited in that they can’t be recalibrated for different tasks without considerable human intervention,” explains Dan Rossek, regional marketing manager at Omron UK. “This usually means a cobot is purchased to complete one task and is under-utilised – especially by SMEs who do not have the overall throughput.

“It is not uncommon for a cobot to be used for as little as 20% of the time, making it a costly investment.”

Recognising this limitation, Omron’s engineers have developed what it describes as an industry first – a mobile cobot workstation that can switch between multiple tasks with minimal reconfiguration. The user can simply move the cobot from station to station, plug-in and ‘play’.

“Our fast redeployment is exciting because if users can maximise cobot utilisation, they can vastly improve both total cost of ownership and overall equipment effectiveness,” says Rossek. “The bottom line is that instead of buying two or three cobots, they can buy one and redeploy it as needed.”

Using an in-built camera, the intelligent workstation reads the barcode or RFID tag that identifies its workstation location, then a sensor enables the cobot to self-position with sub-millimetre accuracy. The cobot then calls up the relevant recipe for the task at that particular station.

01908 258258
www.industrial.omron.co.uk

New SVP Essential is based on a modular design which can be manufactured quicker for parenteral pharma products

Syntegon Technology has launched the SVP Essential which is billed as a cost-efficient version of its proven Pharmatec SVP process systems for the production of small-volume liquid pharmaceuticals. This portfolio expansion is the response to current industry requirements for shorter equipment delivery times. “Thanks to the SVP Essential’s standardised modular design, we can supply our customers with a fully automated, ready-to-use system in just six months,” explains Stephan Hüttner, head of engineering process systems at Syntegon’s Pharmatec product brand in Dresden.

With a maximum of two tanks and volume sizes of 50 to 1,000 litres, the SVP Essential is suited for the production of simple parenterals such as analgesics or insulin, as well as generic drugs products.

01332 626262
www.syntegon.com

New Machinery

Height extension for roll handling meets client needs

This roll handling equipment with a height extension was designed in response to a customer requirement in the food processing industry as the rolls needed to be lifted to an increased height of 3 metres to access a high load point on the processing machinery.

In addition, the lift frame itself has been lowered to 1800 mm for the lifting equipment to be manoeuvred through a low doorway.

In order to lift the rolls to the required height of 3 metres, an extension to the lifting carriage of 1.2 metres has been used. The lift is therefore achieved by means of a location block extension, thereby creating the additional lift with a shorter lift frame height overall.

This new lifting solution encompasses a fully powered 3 in vertical spindle attachment.

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Modular machine can be manufactured quicker for parenteral pharma products

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01332 626262
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Augmented reality for client support

Domino Printing Sciences has launched an augmented reality tool – SafeGuard AR – to provide real-time, remote visual support for customers which promises to strengthen its service capabilities while reducing the need for onsite visits.

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SafeGuard AR offers client gains
The IIoT platform for machine builders

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The all-in-one platform helps machine builders and system integrators with the step-by-step implementation of IIoT and consists of a variety of features that fit the full digital transformation journey. With IXON Cloud you will continue to add value for your customers throughout the entire life cycle of your machines.
Laboratory scale mixers are flexible new options

Silverson Machines has launched three new laboratory mixers to add to its extensive range of high shear rotor/stator mixers.

The first new mixer is the FMX5, a laboratory version of Silverson’s production scale Flashmix powder/liquid mixer. This new unit provides a simple, effective and hygienic means of powder/liquid mixing on a laboratory scale, offering proven performance on a wide range of powders including gums, sugars, flours and milk powders. The mixer also offers an accurate means of predicting the performance of the production scale Flashmix to make the scale-up process much simpler.

For higher viscosity mixing at a laboratory scale, Silverson has developed the Verso-HV, a pilot scale In-Line mixer which matches the capabilities of its production scale HV In-Line mixers. The Verso-HV incorporates a special ‘pumping rotor’ design that increases its self-pumping capacity which often eliminates the need for an additional feed pump.

For applications with more stringent hygiene requirements, Silverson has developed the new Verso UHS. This mixer is an Ultra-Hygienic version of the standard Verso and is designed for Cleaning-In-Place (CIP) and Sterilise-In-Place (SIP) operation. UHS-specification versions of the FMX5 and the Verso-HV are also available.

All three new mixers can be supplied with a Vessel Package that includes a vessel, stand, valve and pipework; while conversion kits are available allowing the standard Verso to be upgraded to a Verso-HV and an FMX5.

Tray former and case former meet customer demands

ixapack Global has developed two new machines in response to customer requests: a tray erector and a case former.

The automated tray former completes the company’s range of overwrapping solutions and by handling up to 30 trays a minute, is ideal for low volume production runs. Robust and reliable, the unit is easy to use and due to its small footprint, is easy to integrate into production lines.

The second new machine is an ICF RSC case former that operates at up to 15 cases a minute. Designed for multi-product packing, its flexibility allows easy management of different sizes of blanks, with an intuitive HMI for quick changeovers.

For more information, visit www.silverson.co.uk or call 01494 786331.

Tray former handles 30 a minute

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Keyence has further enhanced its dimension measurement system range to deliver all the benefits of the existing IM-7000 series but with even greater speed, accuracy and ease of use.

Boasting a rotary unit allowing 360° multi-surface measurement capability for both turned and machined parts, the IM-8000 is fitted with a 20-megapixel CMOS – more than three times that of conventional systems – as well as a new algorithm for stable edge detection. In addition to the new CMOS, the screen is now larger and features enhanced resolution.

As well as standard metrics, the IM-8000 can perform a whole range of new measurements including symmetry, plane measurements, flatness, cylindricity, coaxiality and run-out, delivering new data visualisations including roundness graphs. This, says the company, makes it suitable for parts with even the most complex geometries.

“We have harnessed our measurement expertise to create a system which delivers unrivalled precision but does not require extensive training to obtain the best results,” explains Ailsa Morrison, applications engineer for the metrology division at Keyence.

The MX suction cup can work across an array of applications such as bin picking, order fulfillment, box depalletizing, and parcel sorting.

Gone are the days where you need to change gripper or suction cup for each individual product in the application.
Baker Perkins has improved process control, performance and hygiene on all the units in its Co-Ex Master co-extrusion systems, which create high-value products by adding a centre filling into a cereal outer.

Co-extrusion systems can be added to virtually any new or existing food extrusion line to make a wide variety of pillows, sticks, bites, tubes and bars in attractive shapes and with fillings of virtually any sweet or savoury flavour. Now, visual appeal of the product has been enhanced by adding a rotary insert to each stream of the co-extrusion die where extrudate and filling are combined.

This allows the position of the seam on the pillow to be adjusted so that the unattractive dark line which features on many products is hidden from view.

PROGRESSIVE PUMPS
Meanwhile on the cream feed system, the introduction of progressive cavity pumps has, says Baker Perkins, transformed control. Metering accuracy is precise; product conveying is gentler and back flow has been eliminated; a broad range of viscosities can be handled; and the pumps are suitable for high pressure.

There is also a temperature controlled hopper with a recirculation system to maintain the filling in optimum condition, even if the line stops.

The unit is fully stainless steel, it features hygienic design throughout and the time required to carry out a full clean has been dramatically reduced with the introduction of an Assisted Cleaning system.

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Leuze’s new stationary bar code reader has been designed for container and tray identification and works for conveyor systems with limited installation space.

A new addition to the BCL series, the stationary 1D bar code reader 200i is a 1D bar code reader with integrated industrial interfaces and also simple PROFINET configuration.

The compact design of the BCL 200i makes it particularly suitable for applications with limited installation space such as on or between conveyor lines. In addition to the small dimensions, the location of the cable outlet on the side of the device and its dovetail mounting system make it even easier to install in space constrained applications.

This latest addition to Leuze’s BCL range of bar code readers is designed for the detection of 1D codes on trays and containers regardless of whether the bar code is printed vertically or horizontally. The device features integrated Ethernet TCP/IP and PROFINET interfaces and a web-based configuration tool enables remote diagnostics from anywhere in the world. Also, the inclusion of integrated code reconstruction technology (CRT) enables the BCL 200i to read bar codes with small line heights as well as damaged or smudged labels.
Suction cup is capable of lifting complex products

The MX suction cup from Piab has proved to be the missing link in the smart picking concept devised by robotics company robominds and has proved to be ideal for the complex products handled by its eCommerce and manufacturing customers.

The smart-picking concept is based on a vision system and AI-controlled software, which decides independently which object to take out of a box from randomly assembled contents. The camera recognises the position and the gripping points of the object without any training which makes it easy to commission and use, especially for users who do not have specific robotics or IT know-how.

And the MX suction cup has proved to be the gripper that can universally pick up all the objects presented to it, regardless of the material, geometry or surface structure. “It exceeded all of our expectations,” explains Christian Fenk, CSO of robominds, “no matter whether it is a roll-on deodorant, shampoo bottle, loose sponges, biscuit packs, plaster boxes, mustard tubes, disposable razors wrapped in foil, gummy bears, mouth-nose masks or ice scrapers.” This is why Piab is now the company’s exclusive Tech Alliance partner for vacuum technology products.

The MX suction cup was developed by Piab engineers as a universal suction cup and is compatible with all attachments and functions of the proven piGRIP suction cup family. It is made of robust DURAFLEX material which combines the elasticity of rubber and the wear resistance of polyurethane.

New inspection range has been designed to withstand harsh high-pressure and high-temperature deep cleaning routines

Loma Systems has introduced two new sanitary options, the CW3 RUN-WET Combo and the standalone checkweigher, in answer to increased demands from food manufacturers for improved hygiene and cleaning efficiency for inspection equipment, as well as reduced machinery downtime due to frequent, harsh washdown regimes.

With both being fully IP69 rated and designed to follow the latest industry leading principles for optimum hygiene standards, the Combo provides a combined checkweigher and metal detector in one, whereas the CW3 RUN-WET checkweigher is a standalone checkweigher system.

These systems have been developed in combination with feedback from many customers. By producing a far more sanitary design that is both quicker and easier to clean, the risk of bacterial contamination can be minimised, thereby increasing food safety and satisfying the strictest Codes of Practice and Food Safety Standards. Created to withstand harsh, high-pressure and high-temperature deep cleaning regimes, the systems are suitable for high-care food environments.

The CW3 Combo is designed for harsh environments
New system solves particularly sticky food particulate problem

Air pollution control and project management company FEG Global has unveiled its specialist odour abatement solution which is designed to tackle complex odours from industrial high-temperature frying and cooking environments.

FEG’s patent-pending Liquid Gas Contact Scrubber (LGC) features a flexible modular design which can be tailored to specific user requirements.

Odour and oil mist emissions from applications such as frying, cooking, coating and seasoning within the food industry can cause major problems and lead to complaints. These processes often produce sticky particulate, fat droplets and oil mist which is hard to filter with traditional methods and can coat nearby buildings and also roofs.

EASY-TO-USE SYSTEM

Food manufacturers rely on scrubbers to remove these contaminants and compounds which cause the odour, but these don’t always work.

The LGC is specifically designed to tackle these issues, while also providing an easy-to-use odour removal solution. Unlike other types of scrubber, such as chemical or carbon, the LGC can include multiple stages to tackle a variety of odours and the sticky particulate.

This practical and effective solution to odour control delivers compliance with the requirements of BAT (Best Available Technique) and can be controlled via a simple-to-use interface with remote data logging functionality.

“We believe we’ve developed a unique solution,” says FEG md Chris Williams.

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Kecol Pumping Systems has devised a pump, sensor and manifold arrangement that has halved the operator requirement on a wallpaper coating machine. Previously, the manual filling and topping up of the coating machine trough demanded two operators, which is why the company asked Kecol engineers to evaluate a project to make this operation more efficient. The application itself was quite straightforward and as the coating was a relatively low viscosity material, it was therefore decided to create a bracket to attach to the drums, which would support the pump.

An ultrasonic sensor was also selected to control a solenoid valve within the air supply line to the pump. Following trials at Kecol, the pump, sensor and manifold were installed at the customer’s premises and has since worked so well, the company is now considering further systems on its other coating machines, says Bryan Greenaway, Kecol’s md.

The new system from Kecol has provided efficiency gains to the pump.

The refrigeration division of food processor GEA has switched to the new version of the Ixon Cloud platform, from the original, to benefit from the advanced user management system that gives it a better overview and more control.

Before first using Ixon Cloud, GEA used another remote access solution that was not meeting its requirements and so in December last year, it became one of the first beta users who migrated to the new Ixon Cloud platform.

“We decided to switch to the new Ixon Cloud platform as it is more user friendly and provides a comprehensive user management system,” explains automation engineer at GEA Kenny Schraven.

“Migration to the new platform was really easy with the help of the Migration Wizard.”

GEA uses the IXrouters and Ixon Cloud to provide 24/7 service to its customers. Its software engineers are able to access all registered IXrouters and connect to the PLC and SCADA systems via both VPN and VNC. “We can deliver instant service by easily setting up a VPN connection and troubleshoot a customer’s PLC,” explains Schraven.

Furthermore, it’s possible to remotely connect to an HMI device (touch panel) without the need of a VPN connection. “This is the power of Ixon,” he tells Machinery Update.

GEA’s front-line support is now able to assist customers due to this direct HMI device access. This means that only more complex issues are being forwarded to the automation department, which is proving to be more efficient.

An engineer can now troubleshoot remotely via the Ixon Cloud without spending time travelling to the customer’s site which is advantageous for everyone.

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An engineer can now troubleshoot remotely via the Ixon Cloud without spending time travelling to the customer’s site which is advantageous for everyone.
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Your future-oriented partner for shelf-ready concepts
A compact, multifunctional line has expanded capacity for Irish brewery

For Carlow Brewing Company, GEA VIPOLL is installing Ireland’s first Visitron ALL-IN-ONE line. Looking for a multifunctional filling system, the craft brewer chose GEA’s combined rinser-filler-seamer block, which offers brewers maximum production flexibility and reliability. The ALL-IN-ONE rinses, fills, seals and seams cans, glass and even PET bottles with just one machine in the smallest possible space.

Manufacturers can switch between bottle and can formats without tools in just 20 to 30 minutes, says GEA.

To meet growing customer demand and interest in canned beer, Carlow Brewing decided to invest in a fundamentally new facility. Canning is a first for the brewery, however, no Irish contract packer could provide the required capacity.

Having already installed a GEA beer separator in the past, the brewery was familiar with the technology group’s market knowledge, and subsequently became aware of the GEA Visitron Filler ALL-IN-ONE as an option.

With a capacity of 6,000 containers per hour, the ALL-IN-ONE will enable the brewery to produce a wider range of products on one highly flexible line.
Feeding and palletising cases at an impressive 98% productivity

CKF has designed, installed and commissioned an extensive new case feed and palletising system for Laithwaite’s Wine which has enabled the wine merchant to handle a 50% increase in demand during 2020 while also improving productivity from 65% to 98%.

An increase in customer demand for online purchasing meant the ageing plant at the company’s Gloucester facility was no longer fully supporting its needs. Towards the end of 2019 CKF was approached by the Laithwaite’s team to develop and deliver a new automated palletising solution to meet current and projected future requirements.

The engineering team at CKF gained a comprehensive understanding of Laithwaite’s operations through detailed analysis of the available product data and review meetings with the Laithwaite’s operational team.

A new fully automated layer palletising system with a multi-lane accumulation feed system mounted on a new mezzanine floor was the result.

Wine distribution from the Gloucester facility is defined by online and retail sales, delivery routes, carriers, regions and time to consumer. This requires the filled cases of wine to be automatically sorted and placed onto the correct pallet to be shipped through the correct carrier.

This Gloucester facility has a high-bay warehouse with a large demand on floor area, and so the new CKF-installed system has maximised the use of the ground floor by moving the accumulation and handling of cases to a new high-level mezzanine.

This new fully automated solution uses multiple lanes of low friction conveyors which accumulate full pallet loads of cases (weighing up to 25 kg per case) prior to releasing them to the two layer palletisers.

A TWO PHASE INSTALL

The new equipment was installed and commissioned in two phases throughout 2020, working closely with the Laithwaite’s team to eliminate any operational disruption. Providing a significant increase in productivity to 98%, the benefits of the new system configuration have also enabled Laithwaite’s Wine to handle a substantial increase in throughput, reduce excessive manual handling and relocate the remaining manual processes into the area below the mezzanine floor. This is away from busy trucking routes, and so provides increased safety for its employees.

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All-in-one line delivers efficiency for a Danish strip cake producer

With the help of a modular machine system from Schubert, US company J Skinner Baking is now able to pack up to 160 Danish strip cakes in one minute and load them into cartons ready for dispatch – in a complete, all-in-one solution. An integrated bypass function for removing the Danish from baking sheets in the event of an unforeseen machine stop, has also proved successful on the line.

“Although most of our products are made by hand, we are naturally aware of the enormous importance of new automation technologies in the baked goods sector,” explains David Skinner, md at J Skinner Baking. “An important step has therefore been investment in automation technology for our packaging process.”

With Schubert’s solution, the American company has now succeeded in simplifying its existing final packaging processes and placing them in a single packaging line.

To this end, Schubert developed a customised solution that could be integrated into the available line without restricting the existing production processes. While at the same time ensuring time- and cost-efficient handling of unplanned downtime by integrating a bypass function.

Schubert’s all-in-one packaging solution cleverly combines several process steps. Firstly, the removal of the freshly baked products from the baking sheets in the so-called ‘depanner’ via the subsequent feed to the picker line, in which the cakes are picked from the belt and placed into clamshell packaging. The filled clamshells then pass directly from the picker line via feed belts into two identical case packers, where they are packed into the shipping cartons.

The modular complete solution consists of four packaging machines. The baked Danish are fed directly from the oven to the Schubert line. Each baking sheet, stocked with four coffee cakes, are taken into the system by an F2 robot and placed on a stepping chain which transports the trays to the transfer area. Here, the Danish are lifted out of the sheets from below by an NC unit and then placed onto the outfeed conveyor by another F2 robot.

A third F2 robot transports the emptied sheets to an existing sheet metal washing unit for cleaning.

Following quality control, the pastries are then inserted into the clamshells. After removal from the baking sheets, the cakes are decorated and fed to the Schubert picker line via a spiral cooler, where a spreading unit separates the cakes for quality control before F3 robots place the Danish individually into the clamshells.

The filled clamshells are then sealed, labelled and inspected before being packed by two Schubert case packers into cartons of various formats ready for dispatch.

01676 525825
www.schubert-uk.co.uk

Inline quality inspection ensures defect-free production of bottles of varying shapes and sizes for factory in Denmark

Novio Packaging has selected an Omron FH series vision system to ensure that all of the bottles shipped to customers are of the highest quality, with no defects on its bottle production line in Denmark.

The Danish factory wanted a system that would eliminate defects down to one bottle out of 100,000 and so it opted for a versatile solution from Omron. This system includes Omron’s FH vision system as well as its FQ2 cameras which are now used on the production line, incorporating lights and cameras set at different angles so that they can detect any defects, such as scratches or dust, that would affect the quality of a bottle.

“We use the FH vision system with four cameras to check the bottles we produce from all sides, and as the cameras carry out the checks on running conveyors, we don’t need to stop the bottles for inspection,” explains Peter Lykke, Novio Packaging’s technical manager.

“In addition, we use two cameras on top of the line to check issues such as the dimensions of the caps, and to ensure that there is no residual plastic or anything missing from the caps.”

Any bottle identified as having defects is automatically discarded.

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www.packline.co.uk
Multi-frequency system meets inspection needs

Four Interceptor metal detectors from Fortress Technology have enabled a North American pork producer to meet its new fast-food customer’s tough requirements for accurately and reliably inspecting high volumes of bacon.

Thanks to the Interceptor’s increased sensitivity and simultaneous multi-frequency technology, the producer has not only satisfied its client’s stringent food safety specifications, but it has also eliminated false rejects by isolating product effect.

Winning a major contract with a big fast-food chain, the pork producer’s investment in a higher-quality metal detection system was crucial to meeting its new client’s quality assurance and HACCP standards. The company’s existing inspection equipment was struggling to cope with the notorious product effect common with meat products that are wet and also highly conductive.

Salty products such as bacon can be especially challenging to inspect as it increases the conductivity of the wet product. This impacts a metal detector’s ability to distinguish between any metal contaminants, including stainless steel, that may have been introduced during processing and the false signal given by the combination of product attributes.

These different factors can lead to false readings and consequently product waste. Inspecting retail and bulk packages of bacon ranging from five to seven kilograms, single pass product learning and automatic calibration means that operatives are not having to constantly reset and recalibrate the metal detector for the different pack sizes. “Automated technology features like these make the manufacturing process much simpler for production staff and significantly reduces the time spent introducing and checking operating protocols,” explains Jodie Curry, European commercial manager at Fortress Technology.

The Interceptor works by carrying out a real-time analysis of a low-frequency and a high-frequency output signal simultaneously. 01295 256266  www.fortresstechnology.co.uk

Fresh produce firm has reaped benefits of new equipment

Supplier of root vegetables and fresh products Huntapac, reported a 12% increase in volume last December with ten million packs leaving its Lancashire factory for customers across the UK in the run up to Christmas Day.

The company comfortably met the increased demand for its wonky carrots thanks to its investment in new machinery last year which included adding four new GIC packaging machines to its end of line operation. GIC installed two of its GIC4100 vertical form, fill and seal machines at the Preston factory in November, 2020 which are fed by a Newtec weigher to deliver packs to two lanes bagging up to 40 packs per minute. T 01427 611885  www.gic.uk.net

Christmas last year was best ever

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Installation News
MH has completed the installation of a stacking unit in the packing operation of a dessert manufacturer. The stacker is placed on the end of the manufacturing line after the retail packaging has been sealed and presents the products to the packing operatives in stacks suitable for loading directly into the outer transit packing cartons. The stacker has increased the packing speed of each operative since installation.

It is manually adjustable to be able to stack a range of product sizes and the stack height can be selected from a pre-set menu.

“We have manufactured several of these type of units in the past and they offer a semi-automated approach to help reduce labour in end of line packing operations,” says a spokesman for WMH. The stacker used in this project is suitable for rigid packaged products at relatively low production line rates of up to 40 pieces per minute. For higher throughput and less rigid products, the company offers a range of other bespoke stacking solutions.

“Flexa platform with its multiple solutions from reel, self adhesive and pre-cut paper or plastic labels represents a solid base for the future of your packaging business: from Beverage to Chemicals, from Liquid Food to Home & Personal Care.

Flexibility it stays in the name of Flexa. Each machine is tailor made to customer needs in terms of container orientation, quality control, precision, machine availability and layout requirements.

Flexa is compact, easy to use and maintain.
Co-operation helps to deliver a canning line during COVID-19

When KHS delivered a second canning line to Coca-Cola European Partners’ (CCEP) Wakefield site within a year, it took extra co-operation between both companies to cope with the challenges brought by C-19.

Once the contract for the second line had been awarded, the preparation stage was interrupted by the global pandemic which, explains KHS’ head of sales for GB and Ireland Andy Carter, brought many bureaucratic hurdles to get engineers across borders. Installation started a week after England had gone into total lockdown which certainly presented some technical challenges for the project teams.

The heart of each line is the Innofill Can DVD can filler which offers a capacity of up to 120,000 cans an hour along with the flexibility to change pack formats quickly. Innopack Kisters wraparound shrink packers integrated on these two lines have also proved to be reliable, especially as cardboard multipacks were experiencing growth during lockdown as home consumption soared.

“We can be really proud of what we’ve achieved here together,” says Wakefield’s operations manager Kerry Morgan-Smith.
Endoline Automation is assisting leading egg producer Bird Bros with automating its end of line packing operation of 4 million eggs a week, while helping the company meet ambitious sustainability goals.

Family run business Bird Bros operates a low carbon Packing Centre and since Endoline integrated four, 251 slimline case erectors into its Bedfordshire factory, the company has already reported efficiency gains of up to 10%.

In a bid to automate the egg packing process, eliminate waste and increase overall efficiency, Bird Bros installed two new MOBA MR-12 dual robot loading cells late last year and the slimline 251 case erectors now work in tandem.

Measuring just 1 x 2 metres the units are almost half the size of traditional case erectors.

Reliable traysealer brings packing benefits for dips

Multivac UK has supplied chilled food manufacturer Freshpak with its recently launched TX 710 tray sealer for the production of its dip pots. This new machine has helped to increase the reliability and efficiency of the packaging process while increasing production volume throughout the factory to upscale for new customer demand.

The chilled food producer wanted a modern solution that would provide peace of mind from the moment production started, which was something that its previous equipment supplier had not been able to achieve. Reliability and increased production volume were key requirements of the new machine, and the TX 710 traysealing machine, which is equipped with machine control that includes Flow Manager and Multi-Sensor Control, was chosen to deliver this.

Multivac says Flow Manager ensures precise control of the entire process and guarantees maximum performance stability at every cycle and Multi-Sensor Control also utilises self-monitoring technology to continuously adjust machine settings in real-time to ensure the machine always operates at maximum efficiency. The combination of these features was ideal for handling the houmous snack dip pots with consistent reliability, at very high output.

The new machine was integrated with an existing third-party depositing system, and Freshpak benefitted from reduced line stoppages thanks to the effective balancing of the production line; from tray denesting right through to the finished pack.

A temporary T 790 traysealer was installed onsite while the new TX 710 traysealer was being built with Multivac working closely with Freshpak to ensure the smooth installation of the new machine with no disruption caused to production on site.

Cheese maker has many gains

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New test for air cleaning systems

Campden BRI has developed a new test procedure to determine whether air cleaning systems can effectively inactivate and remove the virus that causes COVID-19 from the air and surfaces. It comes as food businesses attempt to protect their workforces with these systems which are sometimes marketed as being effective against SARS-CoV-2, the virus that causes the respiratory disease.

Annette Sansom, senior research officer at Campden BRI who led the development of the method, explains: “Knowing coronaviruses to be spread by airborne transmission, many food businesses have put in place extra measures to protect their employees, including the installation of air cleaning systems. Some of these devices state effectiveness against SARS-CoV-2, but without these claims being validated, businesses can’t be sure that they’re protecting their staff.

VALIDATING CLAIMS

“With an aerobiology laboratory capable of representing factory conditions, we steered our ongoing research project on the effective control of viruses towards a method that could validate these claims and help businesses create COVID-secure environments.”

The new method uses a surrogate organism, structurally similar to SARS-CoV-2, in a specialist aerobiology laboratory to validate air cleaning systems on a scale not replicated elsewhere in the UK.

The test itself has been developed to adapt to various environments seen throughout the food and drink industry. For example, as meat and poultry factories are kept cold to prevent the growth of Listeria, the aerobiology laboratory can be chilled to assess an air cleaner’s effectiveness in these conditions.

Producers of medical-grade C-19 vaccine vials are under pressure to ramp up production while being subject to strict quality requirements and cameras from IDS Imaging Development Systems are becoming key.

Whether rolled-rim bottles, threaded bottles or ampoules, they are all made of the special glass borosilicate and require customised production lines. The glass must be resistant to a wide range of chemicals and temperature changes and must not contaminate medicines, for example.

Any interaction between the container and the liquid inside must be prevented, as any chemical interference could affect the vaccine with even the smallest scratch, crack or fissure rendering an entire batch unusable.

Industrial cameras from IDS Imaging Development Systems GmbH in Germany are currently becoming key components in this process as they are providing research officer at Campden BRI a method that could validate air cleaning systems. The new method uses a surrogate organism, structurally similar to SARS-CoV-2, in a specialist aerobiology laboratory to validate air cleaning systems on a scale not replicated elsewhere in the UK.

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Images are captured of the glass surface during lateral rotation of the vials system for the quality control of vaccine bottles from Isotronic GmbH, they are being used for the image acquisition.

The VialChecker developed by Isotronic enables high speed processing and is usually used at several points in the production line. The system works with up to eight cameras per unit, with camera models varying, depending on the requirements of the respective control task.

“The IDS cameras capture at least 20 images per rotation, allowing up to 120 vials per minute to be inspected for dimensional accuracy or surface condition with very high precision,” explains Valentin Mayer-Eichberger, COO at Isotronic.

Accuracy is up to 0.01 mm for dimensional testing while defects such as cracks, scratches, chips, inclusions or stains are detected with an accuracy of 0.15 mm thanks to the powerful cameras. Intelligent software enables accurate fault description analysis and classification.

www.ids-imaging.com

Delivering precision weighing technology to support global vaccine production lines

Minebea Intec equipment and systems are integrated into the major production lines of the American vaccine manufacturers as well as all three of China’s production plants, including that of CoronaVac producer Sinovac Biotech. Minebea Intec has also been supporting the CanSino project with high-precision weighing technology.

High-precision, repeatable processes are an important part of developing and manufacturing vaccines which is why the company has been providing research and production departments with specialist technologies and hygienic designs that meet global standards. One example is load cells installed under bioreactors and connected to evaluation electronics to ensure the perfect mixing ratio of raw vaccines and other substances. Other, dynamic weighing solutions ensure that the filling quantity of the vaccine doses is correct.

www.minebea-intec.com
Global medical technology company Becton Dickinson is using the Domino K600i to print codes on its syringe packs for the AstraZeneca COVID-19 vaccine. Becton Dickinson was selected by the UK government to provide a large order of syringes and needles called Flu+, to administer the vaccine to patients. These are manufactured at Becton Dickinson’s Fraga plant in the province of Huesca, Spain and Domino’s high speed K600i inkjet printing technology digitally prints unique codes onto the outer paper packaging of these needles and syringes being used for the Covid-19 vaccine.

The decision to incorporate the K600i UV inkjet digital printer into the Becton Dickinson packaging machines addressed the printing problems it was experiencing using other marking systems. These issues were slow and inefficient changeover with multiple SKUs, too many stoppages and downtime for the replacement of consumables, recurrent print failures and inadequate print speed.

Domino’s K600i has met printing demands while reducing miscoding rejects.

Seal inspection system used to verify C-19 test supplies

The SealScope seal inspection system from Engilico is being used in the manufacture of COVID-19 test supplies at a world-leading medical technology company. Supplies for C-19 tests are packaged in a cleanroom environment before being sealed using heat sealing bars with SealScope sensors mounted on them. These sensors detect plies, folds or product in the sealing area that can lead to open or leaking packs.

When a defective package is detected, a signal is sent to an ejector unit that eliminates the compromised package from the packaging line. The advantage of the system is that 100% of the products are automatically inspected which therefore guarantees the outgoing product quality.

“We are proud to play our part during this COVID-19 outbreak,” explains Olivier Georis, CEO of Engilico.

Seal inspection system used to verify C-19 test supplies

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Making eco workable...

PPMA members have been quietly facilitating their customers’ need to run less of, or different materials. Sourcing sustainable packaging products is now a crucial requirement but they have to work on a packaging line.

Using less material is, of course, good for business as well as the environment and so why wouldn’t any manufacturing company want to do this? In recent times, however, the desire has been not just to use less material, but also to either move away from plastics packaging altogether or to at least run recycled, compostable or plant-based plastics. This move has often brought different challenges for machinery builders of all technologies with one resulting trend being closer relationships and often, partnerships between materials and machinery suppliers.

As food manufacturers and brand owners double down on their 2025 sustainability commitments, BW Flexible Systems, for instance, has received an influx of enquiries about the versatility of its flexible bagging machines. In particular, these companies are seeking to upgrade and purchase vertical-form-fill-seal (VFFS) baggers that can run paper and other so-called eco-friendly materials.

“Our engineers have modified baggers for several clients to allow them to change from plastics to paper packaging for their products,” explains commercial director EMEA at the company Ian Bickerdike.

“One of the greatest challenges that we’ve encountered while modifying these VFFS machines is ensuring that the paper material can run as quickly as the plastics material,” he continues. “By comparison, paper requires gentler handling than plastics and so to address this, we’ve studied, tested and answered a handful of underlying technical challenges.”

The first of these is finding a way to align the sealing force requirements with the customer’s paper material as with continuous VFFS, it is much more difficult to create a sound seal while the film is running continuously. “To solve this, we partner with clever sealant manufacturers and make modifications to the forming tube assembly, specifically accounting for the time and temperature required to properly seal bags using the customer’s chosen material,” says Bickerdike.

Similarly, configuring the ‘jaws’ to punch peg holes in paper, rather than plastics, requires a re-imagining of the tool. For plastics, it’s common to punch holes by melting them into the plastics which, for obvious reasons, does not work for paper. “Instead, we have adopted a cold punch system that is used across other packaging systems that handle paper,” Bickerdike tells Machinery Update.

“Through modifications like this, we’ve witnessed food manufacturers and brand owners create sustainable change quickly and cost-effectively,” he says. “We’re also seeing huge strides in sustainable packaging solutions for horizontal flow wrappers and, at our sister company BW Integrated Systems, automating placer and denester systems to quickly integrate fibre material bowls into food production plants.”

Earlier this year, KHS
enabled plastics film made entirely from recycled materials to be processed on all its shrink packers to provide a sustainable alternative for secondary packaging, and throughout this 24 page feature, you will find more examples of PPMA members adapting their existing equipment or developing brand new options to meet the sustainability needs of their customers.

One example of the new partnerships coming to the fore is the one between Ulma Packaging and compostable packaging supplier TIPA. These companies have partnered to improve efficiency for running compostable films on packaging machinery. This collaboration is designed to optimise Ulma box motion and flow-wrapping machines to run with compostable films, matching the performance of conventional plastics.

**USING LESS MATERIAL**

Using less material to perform a packaging task is, of course, still an important part of the eco mix and one that Ceetak delivers through its QPH (quick pulse heat) sealing technology. This offers manufacturers a cost-effective way to reduce film packaging waste without compromising the quality of the seal or product shelf life. The QPH sealing system can produce pillow packs and bags using less material – typically a 10% film saving compared to conventional wide crimp sealing method.

Food waste is still high on the agenda in a circular economy and this topic was highlighted earlier this year when Ishida Europe worked with Aston Business School to publish a new White Paper called: Food Packaging Versus Food Waste – Moving Towards a Circular Economy. Among the solutions put forward was the need for a collaborative approach between all stakeholders.

Meanwhile, Air Products has launched an online calculator to help manufacturers balance food and plastics waste. This interactive tool enables producers to assess which packaging provides the best solution to minimising food waste and reducing the carbon footprint of a product.

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3D printing: Less waste is the goal

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Sustainability pays off

Sustainable packaging as a competitive advantage: Schubert-Consulting supports customers from all sectors in the development and optimisation of sustainable packaging and processes – from the selection of suitable materials and implementation on appropriate machinery, to the design of a sustainable supply chain.

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Thinking not in terms of quarters, but in generations

As a family business, Schubert thinks sustainably by its very nature – currently with three generations in the company: Gerhard Schubert, sons Gerald and Ralf, and grandsons Johannes and Peter.

Renewable packaging: Cardboard instead of film

Schubert is supporting the move away from unsustainable plastic packaging. In many cases, the changeover to cardboard is also possible on existing machines. This means that the packaging can even add visual appeal and value thanks to excellent printability of the carton.

Brains instead of kilometres

Clever packaging solutions from Schubert can save not only packaging material but also space during transport. The same amount of goods can be moved with fewer journeys – and with significantly less CO₂ consumption.

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Sustainability is a real thing for Coca-Cola...

Machinery Update talks to Gordon McSkimming, sustainability manager at Coca-Cola European Partners about the pack formats across its brands

Although Gordon McSkimming, the sustainability manager at Coca-Cola European Partners (CCEP), recognises that plastics have come under increasing scrutiny, he says the material still has a role to play across the carbonated drinks bottler’s business. Currently plastics bottles make up only a quarter of its packaging use and as part of a networked organisation, the company is also learning from European partners about refillable packaging formats and even a paper bottle that will trial in Hungary in the coming months.

"While we have – and will continue to – make strides in plastics reduction, it still has a role to play in our business," he says. "It has a number of functional qualities; it is lightweight and flexible, has a lower carbon impact than alternatives such as aluminium and glass, and importantly, has the potential to be infinitely reusable and recyclable."

"Our focus is on ensuring the plastics we do use is as sustainable as possible."

The company has worked hard in recent years to increase the amount of recycled material it uses in its packaging. Progress has accelerated rapidly in the last 18 months as in this time, its GLACEAU smartwater range became the first water bottle range in Great Britain to be made from 100% recycled plastics (rPET), and its latest milestone has seen it achieved 50% rPET across its core brands in GB. “It's our ambition to get to 100% rPET as soon as we can, as we've done in other markets like Norway and Sweden,” he tells Machinery Update.

“We've also reduced the use of coloured rPET, to make our bottles easier to recycle, turning both Sprite and Lilt from green to clear alongside other bottles across our portfolio,” he continues.

“So far, this means we've removed more than 21,000 tonnes of virgin materials from circulation and we're proud of these steps.”

Meanwhile, the company has increased production of its aluminium cans, which account for more than half of the drinks it produces. "We've also been light weighting our cans, which are now 22% lighter than just two years ago, to ensure they are as environmentally-friendly as possible," he tells Machinery Update.

This year has seen no let-up in CCEPs efforts. For instance, February saw the first full week of production of its new Shrink to Board packs at its Sidcup manufacturing site. This follows extensive R&D work and means plastics shrinkwrap will be replaced with cardboard across all multi-packs in Great Britain – which will remove a further 1000 tonnes of virgin plastics from the business.

One of the key challenges CCEP and manufacturers across the food manufacturing industry currently face is that there isn't enough food-grade recycled plastics available in the UK to switch to 100% rPET across its entire range. "There needs to be more high-quality recycled plastics produced, so it's vital to make sure we collect more bottles in an efficient way, and stop it ending up as waste," he explains.

“A crucial part in achieving this is the introduction of a well-designed Deposit Return Scheme (DRS) and we're at the forefront of discussions with policy makers and others in the industry to ensure a system is introduced that will significantly improve recycling rates," he says. CCEP is a founding member of Circularity Scotland, the new, not-for-profit scheme administrator in Scotland, and the company believes this is an important step in encouraging and changing recycling habits. “This means working with all stakeholders to support a DRS across Great Britain that works for everyone.”

www.machineryupdate.co.uk
MAY/JUNE 2021 MACHINERY UPDATE 47

This bottle for smartwater is 100% rPET

These bottles switched to clear PET
Feature: A world without plastics?

Paperboard trays bring eco advantage

Marchesini has been developing new equipment to handle paperboard trays for its customers in the pharmaceuticals and cosmetics sectors as an eco-friendly alternative to the classic thermoformed plastics blisters traditionally used to pack products into cartons.

These paperboard trays are designed to protect fragile products such as syringes and vials by keeping them secure within a carton.

As the paperboard tray is the same material as the carton, it can be formed by an assembly unit on an existing cartoner, rather than on an additional thermoforming machine, which reduces initial investment costs significantly. It also offers reduced floor space requirements while reducing operating costs and increasing operating efficiencies.

The Group offers customised trays and cartons for specific product types, sizes and quantities. Using prototypes and mock-ups, these can then be fine-tuned to allow customers to optimise their entire packaging line from components handling to the cartoner, case packer and finally, the palletising unit.

The typical configuration includes a scalable number of flat paper tray magazines, a robotic unit to pick one or more trays at a time, depending on the required speeds, and then form them into shape. Formed trays are then placed onto the main conveyor of the machine before products, whether syringes or vials, are then inserted into the tray by a feeding system from the company.

Finally, the complete pack travels to the cartoning section, in the same way as a plastics blister would have previously.

Fresh produce drops plastics

Keymac Packaging says zero per cent plastics is making 100 per cent sense across fresh produce

Keymac Packaging Systems is working with fresh produce growers and packers in Europe to reduce the amount of plastics currently being used in their packaging.

The company has modified its already successful ready meals sleever – the K101 – to run a 100% plastic free pack for loose fruit such as apples, pears, kiwis and nectarines at speeds of up to 60 packs per minute. The newly launched K101S servo machine increases output to up to 80 packs per minute and this latest model is currently sleeving fruit for a customer in Italy.

The pack uses a cardboard tray which is filled with loose fruit in either 4, 6 or 8 product count formats. The filled tray then arrives at random to the K101’s infeed where it is timed into the machine and inserted into a pre-glued cardboard sleeve which is taken from the machine’s hopper by a servo driven rotary feeder.

“Speedy and toolless size changes are an important requirement of packers in Europe who may change pack formats several times per day,” explains Michael Woods, sales & marketing director at Keymac. The K101 can be size changed in just 5 minutes without the need for tools or any costly change parts.

Keymac received its first order for the new design from a large apple grower in the Netherlands and further orders have followed quickly from other customers in The Netherlands, Belgium, Italy and France. The companies are successfully promoting the concept of loose fruit packed in cardboard packs rather than in PET trays or polythene bags to their large supermarket clients.

Enquiries for the two Keymac units are being received from companies across the world.

Inquiries for the two Keymac units are being received from companies across the world.
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Feature: A world without plastics?

Plastics still offers a range of benefits for many sectors

Lee Metters, group business development director at Domino Printing Sciences believes the so-called ‘war on plastic’ dismisses the many advantages of plastics packaging, and ignores the fact that with the right material selection, design, and end-of-life approach, plastics can be one of the most environmentally friendly materials used in packaging.

And this view is shared by head of marketing at Southgate Packaging Darren Smith who says the company are firm believers that plastics is not evil and can have equal benefits [as paper] when sourced responsibly. “We see the debate from both sides and there are benefits and disadvantages to using both materials,” says Smith. “This is why we believe that when a business is looking to provide input into a more circular economy it should be a healthy mixture of both plastics and paper, used in the most environmentally responsible ways.

“It is all about research and consideration as switching to alternative materials to appear more sustainable can sometimes lead to additional issues, resulting in higher energy, water-use or increased CO2 emissions in production and transport,” Smith continues. “There is a lot to think about when considering the production process for each step of the way, yet there are plenty of actions which can be introduced so every business is contributing to building a more sustainable future. “For example, our Airwave carbon neutral film is made of more than 53% recycled plastics and with the support of the Rainforest Project, Southgate actively contributes all CO2 from production and raw materials for projects in the Brazilian Rainforest,” he says.

“Ultimately, while there are many disadvantages to using these materials, instead of constantly pitting plastics and paper against one another, we should be using them in harmony,” he says.

Developments into new and improved plastics packaging – including the quality of post-consumer recycled (PCR) plastics – are likely to continue for several years to come, and coding and marking technologies need to evolve alongside, says Domino’s Metters. “Some of the risks involved in designing for sustainability are already being addressed by the development of laser- and ink-coding solutions for new packaging solutions.”

Meanwhile, developments in new plastics options continue, such as Sealed Air’s new Cryovac brand Designed-for-Recycling standard presentation shrink bag and shrinkable rollstock which are billed as the world’s first RIC4 coded heat-sealable food packaging materials, meaning they are 100% recyclable to help food processors and retailers further improve sustainability.

Enhanced efficiencies and environmental performance can also be realised through the range’s thinner, lighter EVOH barrier and excellent mechanical resistance. These features can help to reduce packaging material usage and overall carbon footprint by up to 60%, says the company, when compared to widely used thermoforming packaging systems.

www.domino-uk.com
www.sealedair.co.uk
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Delivering new tray options for a sustainable future

The drive by retailers to deliver less packaging, particularly in plastics, to meet its customers’ demands for more eco-conscious options has seen an almost frenzied development in tray formats.

It is true to say that in many cases, using plastics can deliver a more efficient packaging process, but as more and more of it turns up on beaches, while harming wildlife, this argument is almost irrelevant. Instead, big brands are having to adopt different packaging formats that include less material, recycled material or a complete change of material.

In recent times, tray sealing equipment manufacturers have developed machinery that meets all of these needs, one of which is Multivac in the UK.

"Packs produced using tray sealing and thermoforming packaging machines are a core part of our product range, and it has been key that the business addresses these applications in plastics reduction and sustainability," explains Elliot Crisp, business unit manager for materials at the company.

“Our PaperBoard solution provides a full range of pre-made trays, as well as paper on a reel to pack food products with recyclable, paper fibre-based packaging materials,” he says. The paper element of these packs can replace up to 85% of current fully plastics packaging for fresh meat and fish without compromising on shelf life performance, while the remaining plastics element is also designed to be fully recyclable.

“Unlike most other similar solutions, the pack does not require the end consumer to separate their plastic liner from the finished paper trays,” he says.

The PaperBoard solution can be tailored with different barrier properties by using various functional layers and provides an attractive pack at the point of sale thanks to the freedom of design on printed cardboard materials.

NEW CARDBOARD SLEEVE LABEL
Another recent solution from Multivac is a 100% recyclable cardboard sleeve label which can be placed onto packs for fresh produce such as apples or pears. These typically replace card punnets wrapped using plastics flow wrappers, and instead offers a card tray solution with a recyclable carrying label. It is applied automatically using an L 310 conveyor belt labeller.

A growing trend in this area are the new partnerships being formed to deliver eco-materials options. For instance, paper-based packaging solutions company Graphic Packaging International and tray sealing technology company G Mondini have developed a collaborative solution called the PaperSeal tray. Indeed, this new option has made substantial savings in plastics for major retailers since its first commercialisation in late 2019.

To date, the PaperSeal tray has helped to remove approximately 1,600 tonnes of plastics from the packaging supply.
chains of major retailers in the UK, where the vacuum skin pack (VSP) version of the tray has been in commercial use in the protein category since launch. The barrier-lined, cartonboard tray solution features up to 80-90% less plastics than traditional plastics trays, depending on the application. Its special reinforced continuous sealing flange ensures seal integrity and a shelf-life equal to traditional plastics trays, and the film liner can be easily separated post-consumer use to promote easier recycling and circularity.

“Such has been the demand for our PaperSeal tray solution, we’ve made multiple machinery investments in high-speed PaperSeal tray production lines to expand capacity across the UK and Europe,” explains Paul Tye, business development director at Graphic Packaging. “To ensure scalability, we’ve also continued with our PaperSeal tray innovation programme, developing new formats for application in categories such as sliced meats and cheeses.”

EASILY SCALABLE TRAY OPTIONS
Turning to the equipment side, Ross Layton, managing director at G Mondini tells Machinery Update that its fully automated Trave range makes PaperSeal easily scalable at an industrial level. “The solution is compatible with existing tooling and tray sealers for maximum flexibility,” he says.

The PaperSeal tray is available in VSP (Skin), MAP, Slice and Wedge formats, offering brands and retailers the opportunity to replace VSP, MAP and thermoformed plastics trays with a tried and tested barrier-lined cartonboard alternative.

Meanwhile, managing director of Sealpac UK & Partners Kevin Witheford points out that while it is true that non-recyclable, single-use plastics contribute to growing landfill sites throughout the world, cardboard and glass packaging are not always a perfect solution. “Whilst reducing the amount of plastics used in food packaging is important, it shouldn’t be at the expense of providing recyclable packaging options,” he says.

Indeed, Sealpac packaging machines are compatible with a range of cardboard and recyclable mono-plastics designs which is why German fresh berries company Baumann Vertriebs invested in an A6 double lane trayscaler for top sealing its resource-saving rPET trays. However, in the future, the company plans to put its berries on the market in a sealed cardboard tray. “We want to differentiate ourselves even more in terms of sustainability and we know that the trayscaler is capable of processing these new trays without compromising on reliability,” says its ceo Annika Baumann.

At the same time, Daryl Henshaw of Proseal believes flexibility will be key to machinery manufacturers supporting the drive for sustainable packaging. At Proseal, for example, we have responded with solutions to seal everything from PLA to bamboo, he says. “And as the move towards alternative materials to plastics has continued to gather pace, we have worked closely with many manufacturers, such as Halopack, Huhtamaki, and RAP to ensure that any plastics alternative solutions are still capable of being quickly and effectively sealed on our machines.

“At the same time, however, plastics still has many benefits for the food sector, which is particularly true for its ability to help reduce food waste,” he says.

Finally, Ulma Packaging UK has recently developed a more sustainable modified atmosphere packaging (MAP) solution for low-height sliced products, like meat and cheese. The LeafMAP traysealing packaging method builds on the previous LeafSkin option, which boasts plastics reduction of up to 80% (on a 100% recyclable board that is separable from the top layer of film).

The newer LeafMAP technology uses the same concept, but MAP is used instead of skinning tightly to the product.
The Bradman Lake Group manufactures a wide range of packaging machines ‘from process to pallet’ and in recent times has been helping its customers to rationalise their packaging formats to handle environmentally friendlier materials. At the same time, its range is designed to utilise the latest control components and power saving devices to reduce the carbon footprint of each machine, while additional features such as glue, heat and operate-on-demand are also available to further lower energy usage and environmental impact.

“We are proud that our machinery helps to remove many millions of single use plastic trays year on year,” explains managing director John Marlee. “As our machinery brands of Autowrappers, Ibonhart, Bradman Lake and Europack span all areas of the packaging process, we have historical and ongoing examples throughout,” he says.

Autowrappers, for instance, has developed new and improved ‘backward compatible’ flow wrap sealing technologies. This means simple conversion parts or modular replacements enables the range of flow wrapping machines to run recyclable, biodegradable, paper and single substrate mono materials.

Current developments will also ensure higher throughputs, increased sealing times and lower operating temperatures.

Bradman Lake’s range of end and top load cartoning machines can be supplied to run a multitude of profile shaped cartons including gable ends, turnover end, simple folds and creases. This allows the carton to hold and nest a product which reduces, and in some cases, eliminates the need for internal acetate trays. The HS range of tray erectors can produce cost effective carton board trays from recyclable materials without using hot melt glue which can also provide an adequate replacement for certain acetate and plastic tray applications.

End of line packaging company Europack has developed a number of case packing machines and tray erectors with shelf ready features to replace plastic and shrink wrap applications. Where shrink wrap film is used, a tight wrap is applied prior to shrinkage to minimise material usage. "We are also seeing a trend for flexible end of line machines where shrink wrapped packs and full cases can be produced on the same machine to provide fully future proofed solutions,” Marlee tells Machinery Update.

Ibonhart, the Group’s bread slicing and bagging brand, offers equipment that runs paper bags with tuck, fold and label seal, all of which have been developed to reduce and/or replace plastics usage.

Film savings are substantial with banding

Gordian Strapping is offering an LDPE film banding machine to producers of products that have traditionally used a full plastic hood covering; for example a pack of bricks or concrete blocks in the building products market.

The equipment applies a 250 mm or 500 mm deep LDPE film band around four sides of the pack that is tensioned and then heat sealed to achieve a snug fit. This printed band allows users to continue branding their products as well as providing product or batch information but with a substantial reduction in LDPE plastics film use. “We estimate that there will be a circa 80% overall reduction in LDPE film usage where a product moves from a full hooded pack to a 250 mm band,” explains Andrew Lea, managing director at Gordian Strapping.

“We are aware that several industries are developing strategies to significantly reduce their overall plastics usage, and this product provides a perfect solution to achieve this objective; while still retaining essential product and branding information,” says Lea.

The first installation of this new equipment will take place this July. ☎ 01256 394400
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Designing in a ‘green’ benefit

The range of equipment offered by Bradman Lake delivers eco gains for food and pharma engineers

Film savings are substantial with banding

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ACOPOS 6D allows you to move products freely through an open manufacturing space – unbound by the limits of one-dimensional production flow. Magnetic levitation provides six degrees of freedom for unprecedented processing density on a fraction of the floorspace.
‘Plastic free’ banding is now on offer

The Jenton Group has been developing ways to allow its customers to significantly reduce their consumption of plastics packaging or to stop using them altogether through its new range of banding machines – machines that, says managing director Richard Little, follow the mantra of ‘how much packaging do you really need?’

And with the introduction of true ‘plastic free’ paper banding material (up until now, all materials, even paper, had to have a plastic heat seal coating), users will now be able to claim that their plastic free products are 100% plastic free at the point of sale.

On the units, non-sticky banding tape, typically 30 mm wide, in paper or film, is wrapped around a product and heat sealed. It is used to hold stacks together, provide tamper evidence, shelf ready packaging and labelling and can be printed to indicate special offers.

“Published data by WRAP shows it can reduce the environmental impact against shrink wrap for example, by 66%,” says Little. “It’s not perfect for everything, say something that has to be waterproof, but for many products from tee shirts, to padded bags to food multipacks, it offers the ideal solution.”

Jenton has been selling banding machines since the 1970s and can offer advice based on its extensive experience. The company has a wide range of machines available for trial or hire and can also supply sample rolls to banding users who would like to try the new material for themselves.

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Inspector and test to deliver gains

Bytronic Vision Automation has supplied a high-speed hot melt glue inspection system for a global brewing company while Mecmesin has devised new testing equipment to cope with the new range of eco-friendly materials being adopted by beverage companies.

Bytronic’s range is designed to utilise the latest control components and power saving devices to reduce the carbon footprint of each machine, while additional features such as glue, heat and operate-on-demand are also available to further lower energy usage and environmental impact.

The company has helped a global brewing brand launch a new initiative at its UK manufacturing plants, ensuring perfect product quality across its cardboard multipack production lines without the need for plastics wrap. “Hotspot was the ideal solution,” explains John Dunlop, founder of Bytronic. “A fast, dependable and non-destructive test of packaging integrity, it inspects the hot-melt glue adhesive on packaging using thermal cameras placed above the line.”

The technology combines FLIR longwave infrared cameras and Cognex Vision Pro high-res optical imaging with Bytronic intelligent machine vision software. By capturing a thermal image through the cardboard, it verifies the glue position and shows whether glue has been applied correctly – the right amount, in the right place and at the right temperature.

A connected alarm system gives line operators early warning of any deviation in the glue application so that any defects are picked up before they leave the line, preventing accidents, breakages or any potential customer complaints.

Mecmesin says that in the beverage packaging sector, manufacturers are increasingly using bespoke fixtures for force & torque testing of their rPET containers, hybrid bottles and fully plant-based PLA options, in order to fully optimise the accuracy they obtain from manually-operated test equipment. By using Mecmesin’s custom-design service to supply exact-fit cap mandrels, testing the torque required to remove a cap from a bottle is made more consistent by gripping around the whole cap-perimeter.

The mandrel is 3D-printed to the specific cap geometry – down to the exact knurling finish – which ensures each human operator can reliably and repeatably perform a representative removal torque test. Pass/fail indication advises of potential adjustments to the capping line. In this way, simple-to-use, inexpensive digital torque testers can still meet the functional quality checking requirements that end customers of new materials demand.

www.bytronic.com  
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Inspection and testing equipment is proving an asset for products changing packaging options

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‘Plastic free’ banding is now on offer

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Eco-friendly hot melt for pallet loads

Robatech’s AntiSlip solution for pallet stabilisation sees a small amount of hot melt adhesive applied onto the packed goods prior to them being stacked on the pallet, resulting in a safe and stable unit for transport and storage. This approach can significantly reduce, or even eliminate, the need for traditional plastics stretch wrapping film and intermediate layers of cardboard sheets.

Pallet wrapping is one of the largest components of a waste stream and this method provides a solution to eliminate such waste without compromising stability during transit and storage.

“We are seeing a growing demand for AntiSlip gluing solutions as companies strive to reduce the volume of packaging they use and reduce their carbon footprint,” explains Shaun Baker, sales manager at Robatech Gluing Technology in the UK. “This is in addition to the cost and efficiency savings that this type of solution offers.”

Advantages of AntiSlip Gluing are:
- Safety and stability during transport and storage
- Increasing efficiency through integration into production process
- Reduced logistics and recycling costs
- Adhesive is cost-efficient as well as humidity- and heat-resistant
- Simple depalletising with little waste
- No concealment of goods, graphics, or barcodes
- Compliance with packaging waste regulations.

The AntiSlip Gluing solution can simply be integrated into the packaging process and is applicable to a wide range of different palletised products.

A paper-based beauty option

Antalis has helped a beauty company to switch to paper-based packaging for their distribution

Antalis Packaging has helped a leading beauty company to switch to entirely paper-based packaging for the distribution of its haircare products in the UK. The move is part of wider sustainability targets to remove all plastics from its transit packaging supply chain and to use FSC-certified products wherever possible.

The client’s existing packing process involved the use of plastics air sacs, stored in large hoppers above the packing stations. After gaining a clear understanding of the scale and scope of the requirement, the Antalis Packaging machinery team proposed a trial installation of a Fillpak TT production unit alongside its existing system, enabling the client to test it out before committing to buy.

Fillpak TT, by Ranpak, is a flexible, portable void fill system. Fan-folded kraft paper sheets are crumpled in the converter to form the filling material while a foot pedal is used to dispense the right amount of material to fill voids when packaging goods. The converter is portable and can be set up anywhere. To further support the company’s sustainability goals, Antalis recommended switching to an easy-tear, high quality, acid free crêpe paper tape to seal cartons, and also changing to FSC-certified cartons.

Following a five-week trial period, the client decided to purchase four of the Fillpak TT units while also implementing the recommended changes to the tape and cartons.

Further benefits have been achieved through the resulting space savings on site. The compact size and portability of Fillpak TT has freed up space around the packing area, making it easier for packers to work – and socially distance.
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Plastics get sorted

Vision systems and robotics are contributing to plastics waste sorting

BlueVision has released a range of 4 sensor prism cameras named BVC6200 and BVC6100 which cover both the Visible/NIR and Visible/SWIR wavelengths and can be used for a variety of general sorting applications including plastics, while Fanuc has partnered with waste management start-up Recycleye to devise an AI-powered robotic waste-picking system.

BlueVision’s SWIR (Short Wave Infra-Red) imaging technology, available from Alrad Imaging in the UK, is able to help capture non-visible ingredients or defects/contaminants in objects such as plastics waste due to its longer wavelength compared to visible light.

DIFFERENT TYPES USED
“By using SWIR sensors and prism spectroscopic technology we are able to realise many different types of non-visible object inspection solutions,” explains BlueVision’s ceo Takami Hasegawa.

The prism cameras BVC6100/6200 are both single optical systems with...
designed Recycleye Robotics to weigh 75% less than any existing robotic waste picker currently in the market, while the plug-and-play installation eliminates traditional expensive retrofit costs. The modular robotic picking system has already been deployed at two UK material recovery facilities, and these operate on multiple plastics and paper sorting lines.

The new camera from BlueVision eliminates traditional expensive retrofit costs. The modular robotic picking system has already been deployed at two UK material recovery facilities, and these operate on multiple plastics and paper sorting lines.

The new camera from BlueVision

The new camera from BlueVision

The new camera from BlueVision

A world without plastics?

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Vision systems and robotics are contributing to plastics waste sorting

a single lens and have 4 image sensors in each camera. Incident light from the target object enters the prism via the single lens and is divided into 4 optical paths: R, G, B, NIR (or R, G, B, SWIR). The 4 different visible and non-visible wavelengths divided by the prism are captured by the respective image sensors, and as a result, the captured images can be output in the same consistent optical axis. “This is helpful for the image processing to be able to create a variety of images for sorting applications by using differential image or composite image analysis,” explains Hasegawa.

“In case of plastics sorting, a combination of reflected light and transmitted light (back light) in the test set-up is beneficial to help detect contamination,” he says. In operation, each material or ingredient under inspection has its own properties including its own spectral response wavelength for Reflection, Transmission and Absorption.

CUSTOMISED OPTIONS

The company can also offer customised 4 sensor cameras with specific wavelength coverage defined by the end user to match specific requirements in contaminant sorting operations.

Meanwhile, Recycleye Robotics is now performing the physical tasks of identifying, picking and placing materials at a rate of 55 successful picks per minute. The novel solution automates current manual operations and enables facilities to double their total throughput. Fanuc’s team of engineers...
NPD in pouches is focusing on new material use

As Asda switches its chicken packaging from plastics trays to pouches to cut plastics use by up to 50% and Mars Food celebrates the supermarket roll-out of easier to recycle microwavable rice pouches for its Uncle Ben’s brand in the UK, you get a flavour of the development work that is taking place in this sector.

For instance, Mespack’s sustainable material options that run on its pouch and sachet machines have grown in popularity and are already installed across the world, says its UK and Ireland partner Acer Machinery Solutions. When working with recyclable materials, adaptation of both processes and machinery is required to produce high quality packaging solutions and today, Mespack’s specialised machinery can handle recyclable, biodegradable and compostable materials while continuing to run at high output rates with minimal waste, achieving guaranteed efficiency levels of 98%.

Sealing is one of the main challenges when working with these materials, as the sealing temperature and processing window varies, depending on a material’s structure. Meanwhile, the mechanical challenges include materials having less structure, the tendency to shrink when heated, and overstretching when pulled. Mespack’s equipment has overcome these challenges with features such as Elmedur sealing jaws for optimal heat transfer, special alloy perforators, cooling systems and by using cameras that control the sealing position. This helps to avoid stretching by referencing the eye mark and adjusting as needed, minimising film waste, says Acer Machinery.

Meanwhile, Shemesh Automation is always looking to engineer sustainable solutions for customers which will allow them to reduce their impact on the environment. From non-woven dry and wet wipes and cleaning products to soups, sauces, rice, and cheese, the company says manufacturers across many vertical markets are using premade stand-up pouches to stand-out from their competition.

Shemesh has engineered a space-saving, waste-reducing range of complete monoblock packaging machines for both wet wipes and general consumer products in flexible pouches. Its Citadel range, featuring the newly-enhanced -R and -J models offers complete pouch feed, roll stuffing, liquid filling and pouch sealing monoblock packers for round wet wipes rolls.

The Encore model is designed for filling pouches of food, beverages, cosmetics, or pharmaceutical products in flexible packs. With throughputs up to 60 ppm, this machine is a robust, fully automatic, servo driven vertical index unit. It is specifically designed as a single block for the downstream packaging of liquid, solid food, tablets or powder in flexible bags. A filling range of 50 ml to 5 litres is offered.

Meanwhile, Holmach’s new partner Atlantic Engineering has developed and patented a solution that aims to reduce plastics used by 90% when compared with 3, 5 and 10 litre buckets – the Innofill by Atlantic is a large pre-formed pouch filler that can be connected directly to a cooking vessel.

Shemesh units offer sustainable gains across industries

Recycling a pouch story
Manufacturers looking to increase their productivity and improve their operational efficiencies are increasingly investing in high-end automation solutions.

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Mills CNC Automation: Like No-one Else!
Finding alternatives to plastics packaging is a major part of marketing today, and machinery development is having to follow suit. For instance, a recent project for Cama involved replacing a plastics blister with something more ‘environmentally-friendly’. The company therefore designed equipment to handle a special cardboard insert used inside a single serve carton for a chocolate brand.

Cama’s design team devised a pack that keeps the full visibility of the product, as did the original plastics blister, but one that was designed to be produced with recyclable material while keeping the same protection around the fragile product. Working with a pattern of 24 products/cycle, the 7-station Cama loading unit has fulfilled this task, from secondary packaging to shipping tray packing.

The forming and closing operations are performed by two robots, both handling 12 products each, while blister and product loading is performed in two independent stations. A final robot then collects all the boxes and places them into shipping trays.

According to Schubert, the current trend in packaging development is undeniable: wherever plastics can be dispensed with, it is now being replaced by cardboard. And with this in mind, the company believes that this makes it a good time for its customers to rethink their packaging choices; with operational flexibility as a key driver.

This is reflected by the fact that Schubert’s highly flexible packaging machines can process both plastics and cardboard packaging, to help future proof any new machine purchases.

The IMA Group reports that a growing number of companies have started co-operating with OpenLab – its network of laboratories and testing areas which are dedicated to research on sustainable materials, technologies, and production optimisation processes – to evaluate sustainable projects. This service offers consultancy on new generation materials that aim at reducing or even eliminating plastics and facilitates the switch to sustainable films. In addition, OpenLab evaluates emerging eco-friendly and breakthrough materials before they are commercially available, so they can be run on the IMA Illapak machines.

Meanwhile, online fresh food meal-kit company Quomi has experienced an upsurge in revenue and reduced food waste since partnering with Sealed Air earlier this year.

After switching to Sealed Air brand TempGuard, the meal-kit company has reduced food waste by 7% and improved customer perception by offering recyclable paper packaging in its home deliveries. TempGuard is designed for shipping pre-packaged temperature-sensitive goods, delivering thermal insulation and a layer of protective padding.
At the same time, Clevertech has noticed a recent shift from plastics to aluminium packaging, especially in the pet food market. In the 85 g aluminium container category, the company has developed large systems in America and Europe for a multinational pet food company that it says, includes the fastest handling system in the world: a palletisation system for bulk and filled aluminium containers capable of handling almost 2,200 containers per minute and up to 10 layers per minute.

**CARDBOARD OPTIONS**

At Partners in Packaging, director Duncan Macintyre reports that over the last 18 months, more than 70% of tray denester-placer orders it has received have been for either card trays, or crashlock erectable cartons. “We have been approached by many of the large food processing groups who are being asked by supermarkets for a plastics alternative,” he says. Its denesters handle card, plastics and foil trays, which can be changed quickly.

Ixpapack Global says that plastics reduction is essential for its customers today and its range of equipment, that includes sleevers, cartoners, case packers, tray formers and case erectors, packs products mainly in cardboard packaging for customers.

At the same time, KHS’ range of Innopack Kisters tray packers now enables cans of food and beverages to be wrapped in paper to provide an alternative to shrink film for wraparound cartons. With a few minor adjustments, existing machines can be converted to using paper.

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Miniature smart sensors deliver reliability in use

Sick has launched the W4F family of miniature smart sensors which it has developed to achieve next-generation detection performance while incorporating powerful new optical technologies, each purpose-designed to master common sensing challenges with reliability.

The W4F family of photoelectric smart sensors pack a choice of leading detection options and application-specific optics into the same, rugged, 16 mm x 40 mm x 12 mm housing. Each features the company’s trademark BluePilot push-turn pinpoint alignment and on-sensor status display. Including resilience to bright ambient light, the versatile W4F smart sensors multiply intelligent machine integration options for almost any application, no matter how tight the available mounting space. “The W4F is really a team of tiny superstar performers and each is destined to be a future workhorse of our smart sensor range,” explains David Hannaby, Sick’s UK product manager for presence detection. “Whether you need to detect jet black, high-gloss, highly reflective, perforated, transparent, wire-thin or flat products, the W4F has a specialist Optical Expert that is up to the task,” he continues.

At the same time, the W4F’s extended smart sensor features unlock more diagnostics and monitoring, while process information including distance measurement can be output to configure smart automation tasks.”

The W4F family comprises eight different sensor types, split into the Optical Experts together with a range known as Optical Standards. Among the W4F Optical Experts is the new W4F MultiSwitch with two separate switching points, together with a distance measurement output in millimetres.

Platform offers gains to machine builders needing data collection and remote access

Carlo Cavazzi says the launch of NRGC-PN interfaces with the main controller to provide reliable transmission of machine data, process parameters and diagnostic data to the controller via the PROFINET communication interface, provides an effective solution to the demand for faster communication of data transfer and exchange.

The NRG platform is focused on optimising manufacturing operations quickly and efficiently providing the user with more cost-effective processes, real-time data monitoring, prevention of machine breakdown and accurate troubleshooting.

The NRG Series is designed as the perfect solution for machine builders where data collection and remote access have become a top priority, satisfying the requirements for any heating application where reliable maintenance of temperatures is crucial to the quality of the end product.

Air preparation unit provides precision and also, accuracy

The new MS2 air preparation units from Festo allow machine builders and design engineers to put precision and accuracy close to the process without compromising on flow rates. The MS2 is designed to deliver the optimum combination of compact design, low weight and high flow rates that are ideally suited to end of arm tooling applications in electronics and small parts assembly.

“We believe that our new MS2 air regulators and filters are the smallest currently available on the market,” says Festo product manager Aruj Abbas. “They not only deliver control performance but also they can be installed directly on moving components.”

The Sick W4F family of photoelectric smart sensors offer a range of user gain
Precise object scan for reliable quality control

Missing seals, incorrectly engaged connections, the wrong type of screw: none of this escapes the PMD Profiler. With a measuring accuracy of 500 μm, the photoelectronic line scanner reliably detects even the smallest deviations. As precisely as the PMD Profiler does its work, it is tolerant when it comes to its working environment: immunity to ambient light and independence from distance enable flexible positioning. Thanks to the intuitive button operation and colour display, the sensor is ready for use within minutes, even without software.

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Machine builders to play pivotal development role

A new research paper from Siemens has called for a cultural shift in collaboration between food and drink manufacturers and machine builders to create a future factory. The research paper revealed at Hannover Messe in April is based on a quantitative and qualitative survey and interviews with 25 of the UK’s leading food and beverage manufacturers, along with the machine builders who provide them with the technology for production and packaging.

The report ‘Collaborating to Create the Future Factory for Food and Beverage Manufacturers’ comes against a backdrop of Brexit, the climate crisis, a national skills shortage, and a global pandemic which have coalesced to create unprecedented levels of pressure on the food and beverage industry.

Manufacturers accept that accelerating digital transformation and maximising the value of data are central to tackling the challenges of driving up productivity and efficiency, while bringing down costs. Meanwhile machine builders recognise they have a pivotal role to play in this shift – supporting end users with greater machine performance and roadmaps for the future.

The white paper suggests five key areas where the two groups and technology providers like Siemens can bridge silos of innovation and best practice and find the sweet spot for beneficial collaboration.

- **Data-driven innovation:** ways of capturing information and using it to innovate production and processes – example: digital twins, simulations, scenario planning;
- **Combining people, process and data:** frameworks for assessing the need, understanding impact and then managing change;
- **Finance:** budgeting and optimising the costs of innovation;
- **Joint vision for sustainability:** sharing best practice and innovation from across the industry and supply chains;
- **Going beyond the food and beverage industry:** sharing best practice from other heavy heat and energy users.

The full research can be found on the Siemens website: [www.siemens.co.uk/machine-building](http://www.siemens.co.uk/machine-building)

Collaboration delivers factory gains to powder manufacturers

Tetra Pak and Rockwell Automation have announced a strategic business collaboration for cheese and powder solutions. The combined business expertise will deliver data and technology to reduce variability and improve quality consistency, helping ensure finished products are produced sustainably and cost effectively within demand-driven manufacturing environments.

The collaboration – starting with evaporation and spray drying – has resulted in Tetra Pak’s new Powder Plant Booster solution to be packaged with Rockwell Automation’s Model Predictive Control (MPC) and its Pavilion8 and PlantPAx MPC technology. The combination of Tetra Pak’s food application expertise and the digital technology of Rockwell Automation will help producers to adapt to fluctuating demand.  

https://www.rockwellautomation.co.uk

New smart profile sensors provide lower cost control

The OXM200 sensor developed by Baumer represents a ‘smart’ multi-profile sensor ideally suited to inspection and measuring applications. It provides an almost unlimited operating range, providing users with ultra-efficient inline checks and multi-dimensional control of their manufacturing and processing systems, says the company.

This compact, all-in-one, lightweight and calibrated sensor can be quickly installed for immediate use and easily adjusted thanks to an integrated web-browser, without the need for external software.  

https://www.baumer.com
Conductivity sensors suit CIP applications in food and drink

Particularly suited for use in CIP (clean-in-place) applications in the food and beverage industries, the new LDL201 conductivity sensors from ifm electronic have a 77 mm long sensing tip which makes them versatile and easy to install in a variety of hygienic process connections. In addition, the tip features solid PEEK construction which virtually eliminates the risk of breakage even if the sensor is subjected to high levels of stress.

Typical applications for the new LDL201 sensors include monitoring/control of cleaning agents, checking rinse water for residues and product validation. Since the sensors allow improved process control to be achieved, they typically enable users to cut costs by reducing energy usage during CIP cycles, along with the consumption of water and also cleaning agents.

LDL201 sensors have a conductivity measuring range of 100 µS/cm to 1000 mS/cm and feature an integrated temperature sensor. They are provided with an IO-Link interface which provides loss- and error-free transmission of measured conductivity and temperature values.

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Adaptive machine makes QA tests for sealed packaging much faster

Laboratory testing of hot tack seal strength is quicker and easier with improved integrity of results since RDM Test Equipment included technology from B&R Automation in its new generation of testing machine. The HT-2PC machine tests the quality and integrity of heat seals within milliseconds of them being formed on a heat sealer.

Hot tack seal strength is one of several physical properties, including friction, thickness and tensile strength, that must be tested to ensure optimal performance of film materials. Previously, the testing of hot tack seal strength could be a slow process and involved manually loading each film sample separately into the test machine. Each test lasts only a few seconds but would take a skilled operator several minutes to cut a sample and load the machine, before the sample was removed and a new sample then loaded.

With the new machine, loading and feeding is now automatically controlled and indexed by a B&R programmable logic controller (PLC). This reduces the likelihood of loading errors, while enabling multiple tests to be carried out on the same length of film in rapid succession. The touch screen user interface shares similarities with a smart device music playlist. Operators can stack up multiple tests, which the machine then carries out sequentially. The touch screen alerts the operator if the test sample breaks, or if there are any loading or feeding errors. Pre-set testing methods can be programmed and saved into the system depending on individual customer requirements.

A 15 in swing arm panel PC with Intel Atom CPU uses a Windows-style interface for ease of use and visibility of operations, while B&R’s Automation Studio software solution easily manages the complex algorithms required by the testing process. Hypervisor software allows Windows or Linux to run alongside B&R’s own real-time operating system, making it possible to combine a controller and HMI PC in one device.

B&R’s software automates hot tack testing in a simple to use, yet flexible way, locally displaying test results via CSV or PDF files, printed test reports and automated export of raw data to third party software applications.

B&R’s scalable hardware and software allows for different size touch screens to be used to suit a customer’s requirement. Using B&R’s mapp components, the screens are easily scaled. “Rather than write lines and lines of code to build a user management system, alarm system or motion control sequence from the ground up, we configured the ready-made mapps,” explains Phil Neal, sales director at RDM. “Complex algorithms are easy to manage which means our programmers can focus entirely on the machine process.”

Load cells are proving vital in delivering fast cheese production without losing any hygiene

Cheesemaker Fruitières Chabert has optimised its assembly and packaging lines with a special load sensor system that enables faster production without compromising its plants hygiene standards in any way.

This family run company is constantly looking for new technologies to optimise each stage of cheese production, such as sorting and weighing and approached Fine-Spect to help. After assessing Fruitières Chabert’s needs, Fine-Spect created a specialist checkweigher which contains a digital FIT7A load cell from HBM. This load cell is based on the strain gauge principle and, says the company, offers unrivalled performance in the field of dynamic weighing for the food industry.

Fine-Spect chose this particular load cell as it met all the required market specifications such as pure metrological level performance, long term robustness and reliability, corrosion resistance and compatibility with industry-standard communication protocols.

“This installation will sometimes be subject to extreme conditions of use, for example, dismantling and daily cleaning using high pressure steam according to food industry standards,” explains Mr Favre, industrial director of the Chabert cheese dairy. “It is therefore essential that the equipment is robust. “The work carried out by
Nord Gear has developed what it describes as a powerful combination for use in mixing and agitation processes.

The MAXXDRIVE industrial gear unit with the new SAFOMI-IEC adapter is specifically developed for mixers to improve operational reliability and reduce the need for the replacement of wearing parts. In combination with the NORDAC FLEX SK 200E frequency inverter for the power range up to 22 kW, the company is offering a flexible unit with low maintenance.

MAXXDRIVE industrial gear units offer high output torques from 15 to 282 kNm and ensure smooth operation even under demanding conditions. The FEM-optimised and compact design enables operation under ultimate external loads. For agitation applications, a combination with the SAFOMI IEC adapter (SAFOMI = Sealless Adapter For Mixers) is recommended, in which an oil expansion chamber is directly integrated.

SAFOMI is available for MAXXDRIVE parallel gear units in sizes 7 to 11 to cover maximum output torques from 25 to 75 kNm. SAFOMI delivers a compact, simple design and integrated oil equalisation volume, which means that there is no need for oil tanks and hoses or a shaft sealing ring between the gear unit and the IEC cylinder (which can be prone to leakage and wear).

Nord says that using the SAFOMI-IEC adapter instead of the standard IEC adapter on the agitator drive increases operational reliability and lowers maintenance costs. Not only is the oil level and thus the required oil volume lower, but thanks to fewer attached components the installation space is also reduced by the unit.

For the further reduction of wear parts and attached components, the company recommends a combination of the MAXXDRIVE industrial gear unit, SAFOMI-IEC adapter, a drive motor and NORDAC FLEX SK 200E. The frequency inverter can be flexibly installed and features a high output range as well as a wide choice of optional functions and accessories.

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Who’s done what and gone where...

### CME

Wayne Legg has joined CME as head of supply chain, a new role at the company that will see him co-ordinate all aspects of the supply chain within the business to allow the best decisions to be made on all aspects of its current and future supply chain operations. He will lead a team across procurement, planning and materials movement.

### Englemann & Buckham

Daniel Rainbird has returned to Englemann & Buckham as its service and materials manager, tasked with improving preventative maintenance for customers by developing the support agreement side of the business. His role will include working with customers on machine surveys, service agreements and spare parts kits to deliver reduced machine downtime and improved efficiencies.

### BW Packaging Systems

J Alexander Mitchell has joined BW Packaging Systems as operational excellence director in North America.

### RNA Automation

Gary Jenkins, Andy Aston and Chris Johnsson have joined the engineering team at RNA as development engineers, while Brett Matthews and Richard Soady have joined as bowl tool technicians. Neil Jones is now a senior mechanical design engineer and Neil Cope is kitting & stock controller.

### Bytronic

Martin Hurworth is the new CEO of Bytronic Vision Automation and brings an engineering background that spans more than three decades and a record of leading transformational growth in manufacturing businesses. He takes over from company founder Dr John Dunlop who becomes the chief technical director at the company.

### Mills CNC

Russell Harding has joined Mills CNC as business manager for the Yorkshire and Humberside region, taking over from Adrian Jagger who, after 26 years in the post, is taking on new business development responsibilities within the company with immediate effect.

### Sycamore Process

Jerry Redman, former operations director at Sycamore Process Engineering, is its new managing director, taking over from Tim Sharp who is moving into the role of company chairman. Redman will oversee day-to-day operations as well as international business growth, sales and marketing.

### ULMA Packaging

Danny Kenworthy has joined Ulma Packaging UK as regional sales manager for the North East to support the demand for machinery solutions from the company in the region.

### Antalis UK

Nick Thompson took up the new role of packaging director for Antalis UK at the beginning of this year, having been supply chain director for the business for the previous seven years. His appointment is positioned to help with future growth and innovation across the packaging sector.

### Yamato Scale Dataweigh (UK)

Reece Hill has just passed his Level 3 NVQ Extended Diploma in Electrical and Electronic Engineering at Yamato Scale and says he could not have achieved this without the company’s help. He joined Yamato in November 2016 as an apprentice checkweigher builder and through the support of its experienced engineers and his college studies, is now fully qualified.

“¡I can’t wait to get out to customers, on-site, to understand how their production lines operate so that I can make sure everything is working as it should be,” he says.
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