Developing at speed
This issue, we cover the latest developments and working practices in pharmaceuticals and healthcare which seems to have adopted a new approach to innovation since C-19

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The PPMA Show’s return to the NEC, Birmingham this year was a triumph for visitors and exhibitors, despite COVID worries and an untimely fuel crisis

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E-MAIL ADDRESSES:
publishing@ppma.co.uk
show@ppma.co.uk
technical@ppma.co.uk

WEBSITE:
www.machineryupdate.co.uk

APPLICATIONS FOR FREE COPIES of Machinery Update are considered from specifiers, managers and purchasers of processing and packaging machinery in the UK.

ANNUAL SUBSCRIPTION:
£35 (UK), £50 (Continental Europe), £65 (rest of world).

ISSN 0969-4145

PRINTED BY:
John Good Ltd, Progress House,
Butlers Leap, Rugby CV21 3RQ
Tel: 02476 652800

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PPMA matters

Our show did deliver timely sector gains

David Barber
CHAIRMAN, PPMA GROUP OF ASSOCIATIONS
(INCLUDING PPMA, BARA AND UKIVA)

In this column last issue I was confident that September’s PPMA Show would deliver timely gains across all of our manufacturing sectors. I felt sure that exhibitors and visitors would all be keen to reconnect with their industry networks and venture away from the ubiquitous computer screen. I didn’t, of course, predict an untimely fuel crisis!

However, looking at the results from our show, these adverse conditions only seem to have galvanised our visitors who had imminent projects in mind, and new kit to secure.

I would like to thank all of the exhibitors for making the brave decision to invest their time, money and effort in the show while not knowing what effect COVID-19 would have on large, face-to-face gatherings. I would also like to thank all of the visitors who felt that the three-day event was worth their valuable time, again not quite knowing what to expect this time around.

Thank you for believing in our trade association and our ability to deliver a meaningful event. And if you didn’t have enough fuel to get to the NEC, our review of the show starts on page 26.

The global pandemic seems to have fostered a new approach to innovation across healthcare

You will also find a special feature on the pharmaceutical and healthcare markets in this issue which covers the very latest technology helping to speed up developments across these sectors. Speeding up NPD projects has always been the holy grail for these highly regulated products, but it seems that COVID-19 has brought more flexibility across the board. The pandemic has also brought into focus the importance of cleanrooms in the manufacturing of medical products.

Today, adopting robotics is bringing benefits in clean room operations; more equipment is being developed especially for these manufacturing environments, and robots are even being used in the manufacture of hip replacement components. As well as hygiene issues, inspection of tablets, labels, blisters and syringes continues to be important as well as a range of coding options to meet varying international standards.

Find out more in our feature that starts on page 48.

Lastly, the positivity that our PPMA Show engendered will, I feel sure, give us all encouragement as we think about 2022. As this year comes to an end, we can look ahead to see that the new normal, which bearing in mind our exhibition, seemed very much like the old normal, is not going to be as bleak as we might have once imagined.
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Doosan cobots are versatile, easy-to-install and use, incredibly safe and competitively priced. And, because they can be supplied with different application-specific end-effectors (i.e., two- or three-finger grippers, adhesive or vacuum grippers, 2.5 or 3D vision systems, quick-change systems, or polishing, de-burring and sanding tools etc.), they're ready, and able, to take on your machine tending, assembly, testing and inspection, pick and place, and surface finishing operations.

To find out more visit www.millsnc.co.uk or call our automation specialists on 01926 736736 to arrange to see our cobots in action at our Automation & Turnkey Centre.

Mills CNC Automation: Like No-one Else!
News

German exhibition interpack 2023 is already 85% taken

Global packaging exhibition interpack is reporting that its next event in 2023, the first to take place since 2017, due to the pandemic, has already filled 85% of its capacity.

The Düsseldorf-based show project director Thomas Dohse says that industry feedback has revealed that digital alternative events were seen as a plus during the pandemic, but meeting in person at a trade fair is irreplaceable in terms of generating new contacts.

At the next event – it runs from 4-10 May, 2023 – in-person offers will be joined by new digital features.

PPMA Show leads the way in building back manufacturing sector

When the PPMA Show closed its doors on 30 September it was hailed as a great success by exhibitors and visitors alike.

The UK’s largest processing and packaging machinery event returned to the NEC, Birmingham from 28-30 September following the cancellation of the 2020 exhibition. It saw over 250 exhibitors and 1,250 brands showcasing the latest innovations in smart manufacturing, processing equipment and packaging solutions. The event attracted a solid audience despite the fuel crisis that no doubt affected visitors plans.

For the exhibitors, the calibre of visitor and quality of leads were significant positives. For example, process solutions provider Holmach attended its ninth PPMA exhibition and once again it walked away with high praise for the event and the incredible team that organised it, particularly in these uncertain times.

“We weren’t quite sure what to expect in terms of attendance, but as a business we believe that it was a huge success,” says Chris Holland, managing director of Holmach. “The quality of our consultations with both new and existing contacts was exceptional.”

• More comment and details of new equipment at the event can be found on pages 26-45

Celebrating 60 years of innovation

With two years away from hosting events, Multivac UK brought back its Packaging & Processing Discovery Forum designed for the UK’s food industry which was held at its Swindon showroom in October.

The event saw over a hundred people join the company in celebrating its 60th birthday while more than 30 machines were demonstrated during the three days.

In his welcoming address, managing director at Multivac UK Jim Campbell said: “Our industry has responded without fault to keep our nation fed and we should all be proud.”

He went on to say that the company now had 55 technicians in the UK to help keep customers’ factories working efficiently.

The Discovery Forum included machinery, application and full-line demonstrations, new product launches, and keynote speakers followed by Multivac’s very own Oktoberfest.

At the centre of its showroom, the company highlighted its full production line capabilities, including a high-speed slicer complete with thermoforming, inspection and case packing for sliced products. Attendees saw plant-based and protein products, including meat and cheese, being sliced and packed, while at the end of the line was a brand new SRP case packer from Gripple Automation.

www.multivac.co.uk

News

Vision exhibition is seen as a success with repeat visits planned

After an absence of three years, the machine vision industry was able to meet again in person at VISION 2021 in October.

Over 5,400 trade visitors went to Stuttgart for the restart of the trade fair for machine vision with the majority coming from Europe. Contrary to expectations, however, some individual visitors actually came to the industry event from the USA, Korea, Japan and Taiwan despite the travel restrictions and quarantine regulations that were in place.

A poll found that 72% of the visitors are already planning to attend VISION 2022 which will be held from 4 to 6 October, 2022.

The Apprentices talked about skills and jobs

Apprenticeships must count

West Midlands Mayor Andy Street heard the views and concerns from the region’s apprentices when he visited Make UK’s Technology Hub in Aston, Birmingham to meet the latest cohort of engineering apprentices and Make UK’s apprentice ambassadors.

Street was delighted to see the programme in action as he believes apprenticeships have a pivotal role to play in the success of the area.
Acceptance of CE marking in the UK has one year extension

The UK Department for Business, Energy & Industrial Strategy (BEIS) has announced an extension to the acceptance of CE marking in the UK until January 1, 2023; this means that all product areas covered by UKCA marking now have until January 1, 2023 to get ready to use the UKCA marking, with the exception of medical devices.

As the pandemic continues to impact businesses, this extension does provide some relief, however this extension highlights how much businesses still have to do to prepare for the implementation of UKCA marking and businesses are encouraged to be ready for the new UK regime as soon as possible.

**Better to Be Ready**

One point to note is that the continuing acceptance of CE marking being placed on the UK marketing relies on EU and UK requirements remaining the same; if any deviations exist between EU and UK requirements, UKCA marking would still be required. The extension provides the time users require to complete the transition process, says TÜV SÜD, a firm that can support the transition and can offer immediate UKAS accredited UKCA certification work for the following, with an increasing scope:

- Marine Equipment Regulations 2016
- For Pharmaceutical Cap Closing
- Live Torque Readout on HMI
- 0.2Nm Resolution/Accuracy
- All Data Uploaded as a CSV or US Digital Signatures Compliant File

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Millions are being wasted on avoidable site mistakes

UK manufacturers spend on average over £2.5 million on correcting errors when building a new or upgrading an existing manufacturing site that should have been spotted at the design phase, according to new research commissioned by Visual Components. Nearly all (97%) of decision makers said that their organisation had made at least one mistake when implementing new robotics or automation.

The study revealed that mistakes and/or the associated downtime in the manufacturing process typically costs organisations £98,000 on average, with 2% of respondents saying they incur costs of over £1 million. With the cost of failure so significant, the survey says the acknowledgement that 59% of respondents noted that errors in implementing robotics or automation were due to failures to design new factories or upgrade existing sites is not easy-to-use, with two-thirds (66%) admitting to not using the software efficiently. More than one in 10 (13%) of manufacturers also admitted that the current solution they are using does not meet the organisation’s needs at all. “Investment in the right simulation software will enable organisations to benefit from logical, simple workflows and a ready-to-use library of manufacturing equipment,” Morris tells Machinery Update.

Continued growth sees packaging supplier double space at its Distribution Centre site

In response to rapid and continued growth including a near doubling of turnover, packaging supplier Southgate Packaging has increased its distribution centre space by 60%.

To fulfil this growth in sales, Southgate’s requirement has increased from 4,000 pallets to 8,000 dedicated pallet spaces plus further floor space for packing and fulfilment. Specialist 3pl logistics provider Europa Worldwide therefore implemented major changes to its warehouse operation by overhauling and re-structuring its warehouse, racking and transit areas to provide Southgate with a dedicated, specialised space, tailored to fit its specific requirements for its bespoke packaging and packing machinery.

Europa employs approximately 30 staff devoted to the Southgate work.

According to chief exec at Southgate Craig Turner, the eCommerce boom and its investment in sustainable packaging products have contributed to the increase in sales which he expects to only increase further.

US EXPO was hailed a great success as the industry reunited

The US packaging and processing community came together in September for perhaps the most important PACK EXPO Las Vegas and Healthcare Packaging EXPO in its history, according to show producer PMMI, the Association for Packaging and Processing Technologies. Over 23,000 attendees, eager to find solutions to current challenges, engaged with over 1,500 exhibitors across four halls and more than 740,000sq ft of exhibition space at the Las Vegas Convention Centre. It served as the largest trade show in the US in 2021. “Exhibitors and attendees alike were energised by the number of people who attended,” said Jim Pittas, president and ceo at PMMI.
While Industry 4.0 (I4.0) sees reduced risk in several areas, the range and flexibility of connected interfaces introduce a new set of risk issues. It is therefore vital to consider the shifting landscape of risk.

Machinery safety standards define a set of general physical hazards that are used during type certification. However, current standards, such as ISO 12100 - Safety of machinery General principles for design – Risk assessment and risk reduction, have not been designed around the concept of machine connectivity and interoperability. While hazards depend on the intended use and other limits of the machine in the physical world, conventional safety concepts do not consider the sources and effects of cyber threats that create new hazards.

Another limit related to hazards is that safety measures are designed to protect only human health using a ‘worst-case’ approach. Given the connective complexity of interacting assets, applying worst-case assumptions can have an extremely negative impact on productivity and efficiency.

In practice, when a machine operates in an application-specific context, its limits and applicable hazardous situations may differ significantly from those considered under worst-case and stand-alone scenarios. Additional hazardous situations may also arise from any machine-to-machine interaction. They can be related to human health, property and environment, as well as to undesired operational downtime or bottlenecks – the main concern for system owners and operators.

To give an example, an automated guided vehicle (AGV) navigating towards a machine in an operating area with a human presence represents a ‘collision risk’. This risk may be mitigated by using three safety measures incorporated in AGV design (according to ISO 3691-4):

1. Speed control system
2. Parking braking system control
3. Braking system control

In current practice, speed limitations due to a human presence are therefore applied even if there are no humans in the actual AGV operating area. Likewise, in a confined area, with no human presence allowed, an AGV making its final approach to a machine for docking may pose a collision risk between two industrial assets. This unsafe docking event risk may be mitigated by using two safety measures incorporated in the AGV design:

1. Personnel detection system
2. Collision avoidance

To meet the new needs of I4.0, a new event-triggered, dynamic risk assessment and automated validation of safety measures approach is needed. This requires a continuous and holistic risk assessment to ensure stable operations, increased productivity and reduced downtime in a smart manufacturing environment. This needs a digital representation of the physical manufacturing system, using digital twins and asset administration shells.

While digital twins and asset administration shells help manufacturers optimise performance and accurately predict business obstacles, they are also faced with the challenge of navigating a complex new risk landscape. It is therefore vital that the digital twins have customised safety and security profiles. A safety profile should be modelled to describe asset safety in a general and from an application-specific perspective. These profiles should then be processed by an inference engine against actual application constraints to define limits and risk-mitigation capabilities in a real-world application, thereby providing automated risk evaluations at runtime.

As the increased flexibility created by these interdependent and dynamically changing I4.0 systems introduces new complexities and challenges, there is a shift from static risk assessment to one of dynamic risk. Analysing and assessing the underlying physical and cyber risks to humans, property, and the environment is therefore a challenging task.
PPMA TOTAL Show is the UK’s No.1 event for processing and packaging machinery materials, automation and vision.

ppmatotalshow.co.uk
Entry-level metal detector adapts to evolving compliance demands

At the PPMA Show, Mettler-Toledo Product Inspection launched its next-generation series of metal detection systems that are designed to deliver smart, digital inspection to small and medium-size manufacturers and/or co-packers. The modular design of this fully integrated system can be adapted over time in line with evolving compliance and productivity needs which positions the M30 R-Series GC as an ideal entry-level solution for manufacturers who value high performance, with future-proof flexibility built in.

"Where the new metal detection systems really stand out from competitor solutions is in the digital platform, powered by new smart, SENSE software," says Baptiste Naegelen, head of product inspection at Mettler-Toledo. This, combined with advanced algorithms, makes it possible for these entry-level models to deliver high sensitivity to all metal contaminant types with minimal false rejects.

Dynamic Stability Control advances stabilise the core sensor of the metal detector to help protect against environmental noise and vibration interference for increased reliability. The new M30 R-Series GC systems are designed on a modular platform concept with streamlined features as standard. The metal detector and conveyor can be easily upgraded as compliance or production requirements change over time.

The M30 R-Series consists of four metal detector models to suit all budgets. This helps manufacturers to achieve a lower overall cost of ownership and extend the useful life of their equipment, supporting sustainability aims.

"SENSE really is a game-changer in the metal detection field," says Mike Bradley, metal detection systems product inspection specialist at the company. "Just like a human brain, it commands the neural network within these digital inspection systems and integrated GC Series conveyors. "It takes control of the entire metal detection system to unprecedented levels, making judgements and decisions, learning all the time, and constantly harmonising and optimising every aspect of the operation," he says.

The M30 R-Series is the first product family from Mettler-Toledo Product Inspection built around the SENSE software technology, which is billed as bringing dramatic new levels of intelligence and sophistication to the mid-market metal detection field.

According to Naegelen, visitors to the company's PPMA stand were very impressed with this new machine. The full-colour touchscreen makes operation simple, with key tasks accessible using the quick access menu, while the systems have a rugged, industrial design, and offer three levels of ingress protection from IP65 to IP69K.

For more new equipment launched at the PPMA Show, our review starts on page 26.
Antalis has added the Master’In A-482 friction weld strapping device to its range of latest packaging accessories.

The Master’In A-482 is easy to use and simple to adjust, with an ergonomic design and perfect balance, making it easy to use for both vertical and horizontal strapping. The device is suitable for pallet and load securing, logistics sectors, and for strapping goods of light to medium weight.

This hand-held machine has been developed for long life operation, with a brushless motor and the latest generation lithium battery which is ideal for any packing or shipping environment where polypropylene (PP) or polyester (PET) strapping is used. It has a digital display with visible parameters (tensioning force, welding time, battery charge level), and adjustable front and rear guides for different strap dimensions. The Delrin gears (lower weight, lower inertia, better performance) offer more strap cycles per battery, and the device comes with a charger and two batteries included for users.

Master’In is Antalis’ own brand label which says the company, gives the reassurance to customers that it’s from a European packaging solutions provider.

www.adpak.co.uk

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Tel: 01282 601444 | Fax: 01282 612201 | info@adpak.co.uk
Working with its Italian partner Omas Tecnosistemi, Excel Packaging Machinery has responded to enquiries from the vaping industry by designing and launching its new POD filling machine for the E-liquids and CBD industries. Omas had previously supplied a similar machine for the refillable POD industry but has now developed a complete automated option for disposable PODS which are becoming more popular in the global E-liquid market.

The range of cutting machinery from ixapack Global is equipped with ultrasonic technology for optimal product cutting to allow multiple products such as cheese, snacks, cold meats and pastries to be handled. The ultrasonic cutting system uses a special blade called sonotrode, which vibrates at a frequency between 20 and 30 kHz. This vibrational frequency is obtained from an ultrasonic generator, and as a result, the sonotrode acts like a knife animated by an alternating movement which is reproduced 20,000 times per second.

In operation, the cutting system is used on dividing equipment, portioning machines and a cutting module designed to cut multiple product types. The dividing machine cuts cheese wheels into angular portions. Equipped with one or two cutting heads, the machine can reach up to 120 cycles per minute (depending on the product).

Also, the SDM dividing machine has a holding finger which delivers a precise cutting process that does not require tooling changes between two cheese formats. The portioning machine is used to cut blocks into smaller blocks, portions or slices for the cheese, pastry, cold meats sectors. Combined with a weighing and product shape modelling system, the unit is adapted to fixed weight cutting at up to 130 cutting cycles/minute.

Meanwhile, the SCM cutting module can cut multiple product types such as pies, quiches, pizzas, pastries, cold meats or cheese. Suitable for round, rectangular products and also blocks, it can reach a speed up to 60 cuts/minute (depending on the product). Its flexibility also allows it to ensure the cutting of fresh and frozen products.

This complete automation option includes a fully calibrated volumetric filling system, a coding station and also camera inspection with a reject system. Multi-head pick and place delivers an instant change-over between products, and with both single and double pitch machine options in the range, speeds on offer are up to 100 per minute.

Southgate has developed the PWN4 air pillow system which is billed as the fastest small pillow system yet and also a sustainable option. Its compact size means that it is both mobile and flexible and can be moved around easily to suit customers’ requirements.

The four speed modes of 4/6/8/10 m per minute offers unbeatable speed without compromising on quality, says the company. Additionally, there is no heat-up phase, which saves time and also increases efficiency. The touchpad interface is easy to use and enables operators to adjust the heat and airflow quickly and efficiently. It starts and stops with the touch of a button, reducing time and also product wastage.

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Remote service

TNA solutions is launching its new remote assist service: a digitally enhanced customer experience designed to deliver greater efficiencies in commissioning, support and training, with real-time access to tna’s global team of experts.

Harnessing the power of the Microsoft HoloLens 2 headset, the remote assist service enables real-time access to connect and collaborate with tna engineers virtually and leverages AR (augmented reality) to accurately address technical queries. Offering remote access for commissioning, troubleshooting, training and support, the company says this new service takes service provision to the next level, giving food manufacturers the tailored support they need to keep lines operating smoothly – wherever they are in the world.

As well as enhancing service levels, the new digital service has been developed to take account of recent concerns surrounding travel restrictions and the health and safety of both on-site staff and visiting tna technicians.

The new patent pending feature is now available.

New rotating bars offer user benefits

Spiroflow’s flexible screw conveyor (FSC), the mainstay of many global conveying operations, now includes a new patented feature. To assist in the breakdown of conglomerated product during conveying, rotating cutter bars have been added to the device, which are powered by the FSCs drive motor. The addition will, says the company, not only result in less agglomerated material in the end process, it will also prevent foreign objects from progressing through the conveyor and stalling or damaging the apparatus, thereby creating downtime for users.

Spiroflow has been synonymous with flexible screw conveyors for over 45 years and over the years, it has undergone several improvements to meet customers’ latest and ongoing requirements. The spirals themselves have been improved to offer more types to suit different products. And the plastic tubes, originally manufactured in Nylon 11, have since been replaced with UHMWPE.

Other upgrades have included a decrease in motor speed rpm, which is now at an optimal speed for maintaining an ideal mix and blend of materials. This has been done principally to combat the failings of pneumatics, which would suck heavier materials first and result in an unblended mix into a bag.
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New generation of high-speed doors improve performance and efficiency

SSA Abloy Entrance Systems has developed a new insulated high speed door to improve the efficiency of buildings and work processes. Above all, its maximum thermal separation ensures a significant reduction in energy losses at the door. Speed and insulation are crucial for smooth processes and a safe working environment, especially with heavily frequented doors, which is why the new RR5000 combines the high speed of a high-quality door with the optimal insulation of a sectional door. Thanks to the increased thermal performance of the door, companies no longer have to compromise on insulation or speed, says the company.

The door meets green building regs

The 50 mm thick insulation enables maximum thermal separation and minimal energy loss, without condensation on the door, while it has a high opening speed of up to 2.2 m/s in order to keep the thermal output stable and also guarantee the smooth flow of traffic at all times for users.

To keep the indoor conditions stable at the required level in daily operation, all door slats and side parts are insulated. High efficiency is delivered thanks to reduced energy consumption and low maintenance requirements.

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KRONES

Machinery Update, 149 x 225 mm, Contipure AseptBloc, CC-en31-AZ300 08/21

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KRONES

Machinery Update, 149 x 225 mm, Contipure AseptBloc, CC-en31-AZ300 08/21
An automated forklift is added to robotics range

OW Robotics is now supplying the F4 automated forklift to businesses seeking to increase flexible automation in their warehouse operations.

The F4 is an automated robot that can work alongside warehouse operatives, existing materials handling equipment and pallet racking to move palletised stock in the warehouse. It offers a hybrid approach to order picking and packing and is designed to provide a cost effective solution for warehouse operatives looking to boost order fulfilment, reduce forklift related accidents and running costs, and free-up investment in staff for value-added roles.

This F4 forklift, which is manufactured by OW Robotics’ partner Hikrobot, works with OW Robotics’ Q3 and Q7 robots as part of an integrated A-to-B solution. It has a customisable lift height of 1.8 m and can run for eight hours before it automatically charges.

The F4 automated forklift is being offered to customers by OW Robotics quick, easy online ordering and fast delivery.

“Head of robotics at OW Robotics Joe Daft believes the F4 is the next step for warehouse operators looking to automate large parts of their warehouse operation.

“Right now, businesses are faced with some really tough challenges to be able to meet and increase their order fulfilment,” he says. “Without a high level of automation, it’s a real challenge to meet customer expectations for quick, easy ordering and fast delivery.

“That’s why many businesses we are working with and having conversations with are automating key processes in the warehouse,” he continues. “The latest F4 automated forklift is naturally the next step to complement A-to-B warehouse robotics like our Q3 and Q7 models which are great at moving products around the warehouse.”

01522 704083
www.owrobotics.co.uk

Automated feeding system is designed for food bar ranges

RNA’s VariFeed is a high-speed, automated feeding system for handling wrapped chocolate bars, cereal bars, protein bars, energy bars, and fruit bars. Up to 400 products per minute can be sorted to facilitate smooth transfer to the subsequent packaging process. Meeting high food grade standards, the modular system can be designed for multiple products and also customer layouts.

The VariFeed is designed to provide smooth and gentle handling which eliminates product damage. A standard platform offers versatility, gentle handling and low noise to meet modern factory standards, while the modular design also provides the flexibility to handle a range of different products.

0121 749 2566
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The VariFeed is designed to provide smooth and gentle handling which eliminates product damage. A standard platform offers versatility, gentle handling and low noise to meet modern factory standards, while the modular design also provides the flexibility to handle a range of different products.

Washdown Gearmotors and Inverters designed specifically for use in extreme conditions found in the food and beverage industry.

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Campden BRI is looking for partners to help with new research that aims to assess the impact of COVID-19 on factory hygiene to help businesses develop more efficient procedures. It could save participating manufacturers significant cost and time as the research reveals which cleaning interventions have been the most successful.

The research looks to compare factory swab results from hundreds of different businesses to identify patterns in microbiological data to improve hygiene practices to produce safer products.

“When the pandemic hit the food industry hard last year, manufacturers found little to no guidance available on how to handle such an unexpected scenario,” says Dr Greg Jones, senior microbiologist at Campden BRI who is leading the project. “As a result, feedback from industry groups suggested that food businesses implemented different hygiene strategies to continue to produce safe products while maintaining staff safety.

“This inadvertently set the scene for the single greatest industry-wide experiment into factory hygiene ever conducted,” he continues. “For the first time, we can use the factory swab data generated from hundreds of different food factories to compare the impact of different hygiene approaches on factory microflora.”

The researchers will analyse the microbiological data submitted confidentially by participating businesses and compare it with survey responses to identify any patterns or correlations that could help build more efficient and targeted hygiene procedures. The research will also examine how different hygiene approaches compare with each other.

Any companies wanting to take part in the research should contact Greg Jones at Campden BRI direct.

**Sealed Air’s TemPreserve KF**

Sealed Air is supporting vaccine distribution and administration by offering a complete range of temperature assurance materials that can be used in packaging vials that require a cold supply chain, including during the critical last mile of delivery.

Its new TemPreserve KF has been designed to reduce total cost of ownership and bring additional sustainability benefits. It is a customisable thermal polyurethane packaging that, along with a coolant, helps maintain required temperatures (ultra-cold, cold or hot) for the specific length of time needed during transit. As well as custom fabricated shipping boxes, the company has also supplied automated packing and bagging systems for medical equipment, face coverings and C-19 test kits.
Elesa has developed a SAN range of lobe knobs, wing nuts, adjustable handles, knurled knobs and cylindrical fixed handles, with biocide active silver ions. These new introductions reflect items commonly requested during the COVID-19 pandemic and highlighted concerns that have arisen in all areas of manually operated equipment, including machines in the pharmaceutical sector.

The silver ion inclusions work by breaking through the microbe cell wall where they interrupt the action of intracellular enzymes and attack the DNA of the nucleus to prevent cell replication.

Components incorporate silver ions

Laboratory tests show that 98.9% of bacteria load is eliminated over a 24 hour period (ISO 22196: 2011). The controlled release mechanism of the silver ions ensures the antimicrobial characteristics are permanently maintained after numerous washing cycles, and even in sterilisation cycles up to 130 deg C.

The SAN range of standard industrial components in black or white are designed as smooth cavity free mouldings to enable thorough cleaning with normal washdown procedures.

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*Compared to next comparable system.

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- smallest footprint in the industry!*

*compared to next comparable system.
Inspection process reaches break-neck speeds for bars

Sparc Systems says it has set new speed records with a custom metal detection and checkweighing installation designed for a leading diet food manufacturer.

Robust machine construction, vibration-filtering software and a high-speed electric pusher reject are the three main design elements utilised by Sparc to enable Fortress Technology's Stealth metal detector and its own Sentinel checkweigher to inspect flow wrapped bars at speeds of up to 400 packs a minute – more than six bars per second in operation.

Integrated within an entirely new confectionary bar processing and packaging line, which includes ovens, cooling tunnels and a flow wrapper, the two new inspection systems ensure that every bar leaves the line metal-free and compliant with its stated pack weight.

Usually, manufacturers who are wanting to carry out metal detection and checkweighing on the same line opt for a space-saving combi system. However, in this instance, the specialist weight control company wanted to screen its bars for metal contamination prior to wrapping, when the highest detection sensitivity can be achieved. This was because the bars are wrapped in metallic film, which can confuse any metal detector.

Checkweighing, on the other hand, needed to take place after product wrapping.

Given that weighing accuracy is imperative for dietary products, which need of calories stated on the pack, the customer stipulated a target weight of 51 g with a tolerance of +/- 0.25 g, keeping the bars well within the e-mark rules.

Speed and accuracy were two other important criteria during this project; the customer wanted a metal detector and checkweigher that could achieve 400 packs a minute on the line.

Every bar leaves the line metal-free and compliant with its stated pack weight.

High speed control for copper tubes

A manufacturer of copper tubes turned to Bytronic when it needed an automated solution for detecting joints, without stopping or slowing the line.

This brief presented a real challenge, due to the material, the environment and the speed of the line, which runs at up to 130 metres per minute. However, Bytronic developed an inspection system that could identify the tell-tale diameter changes in the ‘crimped’ area of a joint in less than 30 milliseconds.

During rigorous on-site testing and trials, the Bytronic team calibrated the acceptable parameters for variation in the tubing, including allowances for the presence of specks of copper dust on the tube, before dealing with issues such as glare or reflection from the manufacturing environment that could affect image inspection.

This software was then calibrated with a fixed, Cognex Insight 7000 camera, installed above the line, with inspection and processing power built-in using the InspectEdge tooling available from Cognex.

Now operational, the inspection system checks each tube after cutting.

If a crimp is detected, the system automatically triggers a ‘reject’ alarm in the form of a light and buzzer to alert the line operators.

It then displays an image of the joint on the screen.

Tel 01564 793174
www.bytronic.com

The third project involves an XP inline canister sealing machine for a Class 1, Division 1 area. These particular canisters will be pre-filled with wipes and liquid (with bleach and alcohol content).

Each of CWM’s machines are custom-made to meet the customer’s exact requirements at the company’s newly refurbished factory in Gainsborough which houses its engineering team.

Tel 01627 654222
www.cwm-automation.com
Equipment delivers growth at biscuits for pets business

Two years ago, The Big Biscuit Company ordered its first IPS-8BT pouch filling line from Intamac Packaging Systems and this year, a fourth Intamac machine has been installed; this time a twin head linear weigher and bulk bag filler.

Today, the range of equipment at its Borden, Hants manufacturing site now includes three IPS–8BT’s with multi-head weighers and conveyors, one flow wrapper and the new bulk bag filler. Each machine is fitted with a versatile Norwix ink jet printer which deliver simple barcode and date printing.

“The first Intamac machine was basically a catalyst for our business which has tripled since,” explains joint owner Alex Baker. “Two years ago we were packing fifty thousand packs a month, now this has reached half a million and we are continually adapting and changing.

“The fast availability of Intamac equipment helped us to react to the growth in the market and demand from customers,” he continues. “We ended up ordering our second 8BT in January, it was installed in February and has been running for 16 hour shifts ever since, and we have another one on the way.”

The Big Biscuit Company was founded by brothers Alex and Leo Baker, and it designs, bakes, packs and dispatches products for its customers. It is always looking to evolve and innovate which it did using a flow wrapper from Intamac to pack dog chews and in a more recent project, it has worked closely with Intamac to see how a twin lane linear head weigher could be adapted to fill larger capacity pet biscuit bags.

“The flow wrapper offers a great alternative for our customers and it has made us more competitive in the market,” says Alex Baker.

Installation News

Combo system has created efficiencies for prepared foods

Bakkavor Salads has invested in a CW3 Run-Wet Combo system from Loma Systems – a fully IP69K rated checkweigher and metal detector system that is designed for high care, harsh washdown environments.

Bakkavor Salads’ Bourne, Lincolnshire site had been using an ageing inspection system on a line that was handling microwavable noodles in packs and the downtime for changeovers and cleaning was not only having a significant impact on production, it also had cost implications.

**SIGNIFICANT SAVINGS**

Given these challenges, Loma installed its new system to provide Bakkavor with a range of production efficiencies. These included an estimated daily saving of two hours production time and an uplift in the noodle pack rate, due to easy cleaning and no drying time, despite multiple product changeovers.

The CW3 offers a host of new features and smart design details for customers.

**TWO YEARS AGO, THE BIG BISCUIT COMPANY ORDERED ITS FIRST IPS-8BT POUCH FILLING LINE FROM INTAMAC PACKAGING SYSTEMS AND THIS YEAR, A FOURTH INTAMAC MACHINE HAS BEEN INSTALLED; THIS TIME A TWIN HEAD LINEAR WEighER AND BULK BAG FILLER.**
Latest drum motors are driving conveyors and food safety push

System integrators including Thai MecTech and MT Food System installed a set of conveying solutions for the Charoen Pokphand Foods (CPF) facility in Bình Phóc, Vietnam, with Interroll drum motors as the key drive equipment. Efficiency and hygiene were at the core of the installations to help the company meet the highest hygiene standards.

As the key drive equipment, a total of 211 Interroll drum motors were installed at the site, including the DM 0080, DM 0113 and DM 0138.

““The most important food industry practice is hygiene, and with Interroll drum motors we can reduce most hygiene problems on the conveyors,” explains the CPF executive vice president.

The drum motors have received EHEDG certification, featuring IP66/IP69K protection, which means they can provide the highest hygienic protection. With drum motors, the risk of product contamination in the food processing area is significantly reduced because most of the parts are located inside and the smooth, stainless steel surface helps reduce the possibility of dirt and microbial retention to a large extent, says Interroll.

[www.interroll.co.uk](http://www.interroll.co.uk)
The PPMA Show was hailed as a great success by exhibitors and visitors alike with the latest smart solutions in manufacturing, processing equipment and packaging being demonstrated on over 250 stands. The event attracted a solid audience despite the fuel shortages that no doubt affected visitors plans that week.

“Notwithstanding the impact of the pandemic on all live events, the PPMA Show has once again proved to be a successful event for both visitors and exhibitors,” said show director Richard Little. “We are thrilled to have delivered our first live show since 2019 and evidence is that buyers have visited with active projects in mind.

“It’s great that the PPMA Show will help contribute to building back business.”

Many exhibitors were delighted with the level and the quality of enquiries and the seniority of people visiting the three-day event. Martin Bailey, zone director – Northern Europe at Markem-Imaje was delighted to be the global coding company supporting the event. “We have bought three companies since the last event and have new products on our stand, so we have a lot to say to visitors,” he told Machinery Update.

“It’s been great being out seeing customers again and to be able to tell them something new.”

These positive sentiments about the exhibition were shared by Ed Williams, sales director at Ulma Packaging UK. He told Machinery Update that Ulma was having a fantastic show. “We have been pleasantly surprised by the number of genuine enquiries we have been taking,” he said.

Dan Rossek of Omron UK felt that visitors to its stand had a real need for new technology and there seemed to be some pent up demand. “The turn out has been good,” he tells Machinery Update.

The PPMA Show saw a range of new technology on display for visitors keen to see new things in person across the three days – many are covered in the next 19 pages

Delivering for sectors

The footfall has been fantastic and the quality of visitors exceptionally high

Reflex Labels found its stand busy during the show and its general manager systems division Nigel Wilson said there was definitely an appetite within the industry to see new product developments. “It’s been a great show,” he enthused.

Jon Morris, marketing manager at ifm electronic was also pleased with the level of quality enquiries the company was receiving during the exhibition. “We have also found the visitors have responded very positively to hearing that we hold stock in the UK,” he said.

Efaflex UK felt the show had been a huge success with plenty of visitors and a great vibe.

“This resulted in a high number and superb quality of enquiries from customers old and new,” said md Darren Turrell. Visitors were also very positive about the new equipment launched by Yorkshire Packaging Systems at the show. “As a result of the machine’s PPMA Show debut, we are in talks with several large mail-order fulfilment businesses now looking to improve their bagging functionality,” said Tom Hill, sales manager at the company.

The PPMA Total Show will take place from 27-29 September, 2022.
Automatic in name, automatic in nature...

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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!
Filling machines used to deliver a sustainable shop

PPMA Show exhibitor Scayl is providing Tesco with packing machines to fill plastic-free returnable and reusable containers with a range of products that are staples in our diet.

Tesco has partnered with Loop to provide a zero-waste shopping service that differs from competitors as consumers do not have to provide their own containers. Customers pay for the product, add a QR code, then return the container to get their deposit back. The company says that not only does that mean Scayl machines are helping to reduce plastics waste, but the machines are also able to reduce the amount of product waste by using a high degree of accuracy to correctly measure and fill the containers – without any spillage.

“Buying just three items from the Loop range removes millions of pieces of plastics waste – which is incredible. “The trial is initially taking place in ten stores across eastern England, and we’re looking forward to seeing where we can take our machines next,” he says.  

Visitors could discuss the fillers used at Tesco

An efficient release system was added to connectors range

Visitors to the Yamaichi Electronics stand saw a new release system that has been added to the successful Y-Circ P series of push-pull circular connectors from the company.

“We have developed a new flexible system for easy unlocking in order to offer our customers a convenient extension to existing products,” explains Matthias Schuster, product manager for circular connectors at Yamaichi Electronics. The opening assistance is compatible with all straight and angled cable connectors of the Y-Circ P series.

“Ultimately, IMA Ilapak predicts that all flow wrappers will adopt ultrasonic sealing systems, both vertical and horizontal.  

Eco-gains will be supplied

A semi-automatic vertical cartoner that is destined for delivery to the contract packer T & H Marketing to handle shampoo and conditioner bars being packed into compostable corrugated cartons, was seen on the Raupack stand at the PPMA Show. The machine will handle this eco-friendly pack to meet the sustainability aims of the brand owner.

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Fortress Technology Europe unveiled its new ‘best value to performance’ Raptor x-ray at the PPMA Show. Meeting retailer demands to increase detection of physical and harmful contaminants and to mitigate costly brand recalls, the company says it has engineered one of the most reliable, energy efficient, cost saving x-ray’s on the market. The machine integrates a number of high-spec technologies first developed by sister company Sparc Systems, applying them to create an affordable, brand-protection food x-ray unit with a constant inspection throughput of 100 packs per minute.

A single lane x-ray, available in two belt widths – 300 mm and 400 mm – one of the Raptor x-ray’s key features is its full 1.7 metre enclosure which maximises contaminant detection sensitivity and reliability by dissipating any heat created by the HMI and generator.

And accomplished without using an energy-intensive air conditioning unit as instead, the unit pulls in fresh air and uses a more energy efficient fan generator to circulate air through the cabinet. Fortress reckons the threat posed to companies by a product recall and enhanced quality control is certainly driving wider adoption of x-ray throughout Europe. “In this context, the Raptor x-ray fills an important gap for better targeting foreign contaminants in sliced meats, cheese and ready meals applications in all pack formats measuring 300 mm by 400 mm and 30 mm deep,” says Phil Brown, managing director of Fortress Technology and also Sparc Systems.

The Raptor x-ray is billed as energy efficient and cost saving for users. “With the Raptor x-ray there are no financial surprises,” says Brown. “It’s a high performance food x-ray that now puts this advanced technology in reach of all food processors supplying all the major retailers.”

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The company also included equipment from its Italian partner Omas Tecnosistemi on its stand. The partners have supplied key UK pharmaceutical companies with nine automatic lines for COVID-19 testing kits to help the NHS meet the huge demand during the ongoing global pandemic.

Technologies on the Excel Packaging Machinery stand included the new range of semi-automatic volumetric filling equipment, called EX-Fill-S, described as a robustly constructed digital liquid filling machine.

This new range is ideally suited for both first-time users or within a busy production environment where flexibility and accuracy are required. Volumes can be adjusted via a simple to use touch screen LCD display and other features include single shot, multi-fill or continuous automatic mode.

Easy change-over was a priority and focus in the software development of the range with a 99 programme memory. Meanwhile, the company has made the EX-Fill-S fully upgradable for customers. The automation options available include automatic integration to gating conveyors, capping machines, rotary tables and packing conveyors.

Semi-automatic volumetric filling machine range offers a robust, digital option for customers filling liquid products

A high speed camera offers a lower cost option across sectors

Scorpion Vision presented a range of vision technologies at the PPMA Show while also launching a new high speed camera that is capable of capturing well over 2000 frames per second.

The company says this new camera product range is easy to set up and easy to use and is a lower cost option than comparable technologies on the market. “It makes it easy for users to have the ability to record manufacturing processes at high speed in order to then analyse them frame by frame,” explains Jack Versey, sales application engineer at Scorpion.

In operation, it can be used to inspect, count or even trouble shoot on a production line. New camera is a super-fast option

Food safety bar is raised with latest x-ray system
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An x-ray service package can deliver valuable returns in use

Ishida Europe discussed its new holistic complete product offering across its entire x-ray portfolio with visitors to its stand at the PPMA Show that provides customers with peace of mind and delivers a guaranteed total cost of ownership (TCO) of less than 3% per annum over a 5-year period.

“An investment in x-ray technology by a food producer is a clear sign that they have a focus on ensuring the quality of their products to their end customers,” says Sibtain Naqvi, Ishida Europe’s x-ray product manager.

“However, a concern that food companies have raised with us around x-ray technology is the additional training and the costs surrounding the replacement of some of the components.”

LOW COST PACKAGES
While the majority of the spare parts required for x-ray equipment are relatively low cost and in line with the maintenance requirements around checkweighers, the systems’ x-ray generators and line sensors can be quite costly items to replace. Ishida has therefore introduced these low-cost service packages for new machines that incorporate complete coverage for the units over a 5-year period.

The Ishida service package is paid for up front with the machine, and for all Ishida x-ray platforms the cost of ownership works out at less than 3% per annum. It is based on a fixed fee with no hidden charges, and this guarantees full coverage for the x-ray inspection system over the initial five years of the machine install.
At the PPMA Show, Yorkshire Packaging Systems (YPS) launched an automatic poly-bagging unit in conjunction with global manufacturers Pregis. Called the Max Pro 24, this automatic bagger is designed to ease the pressure on any busy pick and pack environment. With its ability to match the output of four manual packing stations, it is designed to deliver fast returns on labour costs, efficiencies and speed, while consistently producing a high-quality bag with neat and secure seals.

Its roomy 24 inch aperture and 12 inch depth is capable of bagging up to two shoe boxes side by side, which says YPS, makes this model the widest of its kind currently available on the market. This portable, free-standing and ergonomic unit is simple to operate and can be configured to any space and/or operator requirement, making it ideal for shift work or temporary workforces.

It has an extensive pre-programmable settings memory and also intuitive controls including precise bag opening and closing deflators. Its ‘plug and play’ design incorporates a barcode reader for eCommerce applications, it has an inbuilt thermal transfer ribbon printer for despatch labels and printed graphics and remote diagnostic capabilities. Up to ten types of plastics and paper bags can be run, including fully recyclable specifications. This flexible solution is perfect for eCommerce packing applications but is also ideally suited for use by manufacturers.

YPS can also supply a comprehensive range of compatible bags, including pre-opened or fanfolded specifications as required. T 01484 715111 W www.yps.co.uk

New product offers reliable, food safe construction to users

PolySto, a key partner supplier to specifier and installer of hygienic flooring for manufacturing and processing industries Kemtile, introduced its HygiSeal 3.1 product at the PPMA Show. It is seen as a significant upgrade in food safe construction, setting a rigid bonding between its kerbs and wall and floor surfaces.

It is also PU-Free and has a flexibility of 20%, so it can still live with the building. With no special caulk gun required for application, it is water and chemical resistant, can repel fungus and has an application temperature of 5-35deg C. Kemtile often specify PolySto’s CleanRock technology to clients for protection from harmful listeria growth. T 01925 763045 W www.kemtile.co.uk
Endoline Robotics launched flexible finance options on its robotic palletising range to help manufacturers take the automation plunge at this year’s PPMA Show. With a solution designed to fit all requirements, from rental systems to pay-per-pallet, the ‘Pal’ finance options have been designed to de-risk automation plans and enable manufacturers to spread the cost of their investment. Based on the increasingly popular principle of Robot-as-a-Service (RaaS) where providers offer robots as a service to an organisation for managing repetitive tasks, Endoline’s Pal financial solutions negate the need for a large initial capital investment. As an expensive commodity, many manufacturers, particularly those who work seasonally, have shied away from investing in robotics due to the difficulties in achieving a quick return on investment but, says Endoline, this must change going forward.

Further de-risking the purchasing process, the company is also offering a ‘Try Before You Buy’ option, where manufacturers are invited to run product trials before placing an order.

Power pre-stretch levels reach new heights on wrapper

Aetna UK (Robopac) demonstrated its new robot S7 model machine to visitors to its stand at the PPMA Show which now offers power pre-stretch of 500% – it is designed as an alternative to the S6 model that achieved 400%. The new unit is easy to use and can hold 12 wrap style parameters which are accessed via the control panel. This development comes at the end of a year that has been very busy for the company as it has kept up with the demand for automation during the pandemic.

Random bin picking is made easy at the show

Stemmer Imaging says random bin picking is among the most demanding vision guided robot application which is why visitors to its PPMA Show stand were impressed with its new InPicker option being demonstrated. “InPicker allows users to continuously run manual and repetitive tasks with no errors while maintaining accuracy levels,” explains Mark Williamson, managing director at Stemmer Imaging. “With an average cadence of less than eight seconds per piece, InPicker optimises the operation of the production processes and minimises the resources allocated to maintenance,” he continues. “The possibility of using the system continuously, during the three daily work shifts, makes it especially interesting in continuous production systems and guarantees a rapid return.” A key benefit for OEMs and integrators is that this option presents a quicker way to achieve a bespoke offer.

This InPicker consists of a hardware (vision + robot) and software (imaging + communications) solution which can solve all kinds of picking applications across different industries. It employs model-less pre-processing and searching algorithms for primitive shapes matching (cylinders, spheres, boxes, etc) and Deep Learning object detection and location algorithms for picking CAD-less, unknown objects. It is also equipped with a user friendly Assistant that allows users to automatically calibrate the system and set up all parameters without having prior experience in machine vision. InPicker identifies the position and orientation of the parts in bins and allows users to select a collision prevention strategy by discarding those grasping positions that may pose a risk in the robot’s trajectory. It is adaptable to all kinds and sizes of parts and bins.

Flexible finance options were launched across a range of robotic palletisers to help companies adopt automation

Endoline Robotics had a very successful PPMA Show.
Interroll introduces the new Split-Tray Sorter: the perfect solution for small and mid-sized items. Efficiency and low maintenance make this new sorter attractive for those looking for lower operating costs and quicker return on investment. It is an ideal solution for the 3PL, E-Commerce, Fashion and CEP industries.

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Latest solutions for warehouses

Producer of recyclable, reusable and returnable transit packaging solutions, Schoeller Allibert highlighted its latest range of options that enable users to optimise warehouse and supply chain performance.

The company designs and develops bulk, handheld, stackable and nestable returnable packaging solutions for a vast range of industries, including retail, eCommerce, pharmaceuticals, food processing and ingredients, chemicals, and automotive sectors, all designed for automated warehouses.

“Highly automated storage systems and processes, both inbound and outbound, require innovative ‘out of the box’ thinking,” says Jon Walkington, sales and marketing director at Schoeller Allibert UK.

“And our broad portfolio of solutions set the benchmark for efficient, flexible, and robust system integration.”

As well as standard models, the company offers a bespoke design and engineering service to allow customers to enhance supply chain efficiency and profitability, lower transport costs, reduce waste and enhance environmental performance.

The company has a comprehensive range of standard and tailor-made returnable transport packaging (RTP) solutions across ten key product segments.

At the show, the company also discussed its packaging rental and leasing models.

Makem-Imaje demonstrated its new remote user interface (RUI) for the SmartDate X30 thermal transfer overprinter (TTO) at the PPMA Show.

This optional RUI is ideal for production lines which require a broader suite of functions including password protection, front-end uniformity with their full range of Makem-Imaje solutions and, web user interface or virtual network computing integration with OEM packaging machines.

Offering an advanced range of functions, the company says its new RUI reduces downtime, waste and product recalls by minimising human error. This is achieved through multiple functions including a simple print preview and print adjust functionality, enabling dead dot detection which is viewable and adjustable with a single click.

The simple online password configuration facilitates the creation of multiple, customisable profiles allowing the operator to immediately access their required functions and begin operating in just a few clicks. It is provided with a bracket for easy mounting.

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IO-link versions extend a range of current photoelectric sensors

Visitors to the Carlo Gavazzi stand saw the new IO-link versions of its popular family of PD30 photoelectric sensors. Features of the new PD30 IO-Link photoelectric sensors include background and foreground suppression, PointSpot versions to offer sensing distances up to 6 m, diffuse reflective variants with IR or red emitted 1M sensing distance, retro-reflective sensors with or without polarisation and through beam sensors which are used to detect objects either by reflection or interruption of the emitted light beam.

The PD30 is manufactured in a reinforced PMMA/ABS IP67 housing and includes a manual potentiometer for easy setup and easy adjustment, NO and NC outputs and NPN and PNP v N.O, N.C, NPN, PNP, push-pull, external input or as remote teach function, Timer functions can be set, such as On-delay, Off-delay, and one shot while logging functions are offered for temperatures, detecting counter, power cycles and operating hours.

The company says that utilising the latest IO-Link technology adds functionality to many industrial applications, providing programmability and customisation to sensors, and solutions to common factory automation dilemmas.

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GLUING SOLUTIONS ROBATECH
Range of machinery can deliver sustainable gains

Ulma Packaging UK demonstrated its FM300C flow wrapper, TFS 200 thermoformer, TSA 680 tray sealer and popular VTI 640 vertical form, fill and seal (VFFS) machines at the PPMA Show. Designed to package whole trussed and untrussed birds, the FM300C horizontal form, fill and seal flow wrapper processes poultry at rates up to 60 packs a minute. Its extra 25 mm height capacity and 200 mm larger jaw opening accommodates larger birds. The FM300C is also compatible with Ulma’s modified atmosphere packaging solution for minced meat, which can provide plastics reductions of up to 60% without compromising product integrity.

Ideal for poultry, the VTI 640 vertical wrapper uses Ulma’s Tight-Bag air extraction method, removing air via perforation with a patented jaw arrangement. This reduces plastics per pack without altering visual appeal or increasing contamination risks, while achieving speeds of up to 35 packs a minute.

Visitors also saw the TFS 200 MSV, a machine which is suitable for MAP, universal skin and vacuum packing across multiple sectors and also the TSA 680 which is billed as one of the fastest tray sealers available, able to package meat and vegetable produce at over 20 cycles per minute. Suitable for single and double packaging lines, its high sealing force guarantees safe hermetic sealing.

“We continued to focus on sustainable packaging solutions at the PPMA Show, including our Tight-Bag and minced meat MAP innovations,” says Ed Williams, sales director at Ulma Packaging UK. “We also demonstrated how processors and manufacturers can achieve more efficient operations while reducing material use through these developments – a key concern with sustainability now of paramount importance to customers.”

Products can be tested on equipment before ordering across a huge range of technologies

At the PPMA Show, Autopack demonstrated a range of container/bottle handling, filling and capping equipment together with flexible pouch, sachet and vertical form, fill and seal (VFFS) machines to visitors at the exhibition. This year saw the first showing of the Ayrtec E4 washdown 4-head depositor which is also available in 2/8/12 head versions and the MC50 vacuum capping machine. Meanwhile, the Traktech rotary rinser offers a compact solution for rinsing a wide range of glass, metal and plastics bottles or containers using ionised air.

**HOMECARE OPTIONS**

A Tedelta 3 head capper was running a popular flip-top style screw cap along with the 4 head all servo automatic liquid filler which is designed specifically for the personal care and homecare market. On the flexibles side of the stand, visitors saw the Postpack automatic pouch machine, Postpack duplex sachet machine, the range of heat sealers and also linear weighers along with the AV31 budget VFFS bagger designed with all around access for cleaning and easy operation.

Autopack also discussed its recent move into a brand-new facility with a dedicated showroom, production line build area and new service centre where customers can test products before ordering.
Quick to install and quick in the process.

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Automation technologies took centre stage at show

Beckhoff UK exhibited its range of drive technology, advanced automated systems and open automation software at this year’s PPMA Show. The company highlighted how machine builders and control engineers can introduce modular, flexible layouts to their packaging machinery and setups.

Visitors saw a selection of servomotors and servo systems, as well as the recent TwinCAT Vision expansion to its widely used TwinCAT 3 automation software.

From its servo portfolio, Beckhoff had a range of products designed to meet almost any machine requirement. For instance, for packaging systems where space is at a premium and ingress protection is important, the EP7211-9034 servomotor box allows the direct connection of servomotors and features a safe torque off (STO) input to ensure safety in a reliable and cost-effective way.

Also on show was the AMP8000 distributed servosystem, a servomotor with an integrated servo drive that forms part of Beckhoff’s Automation Without Cabinets concept. The product boasts a compact footprint, includes TwinSAFE functionality and features Beckhoff’s One Cable Automation (OCA) technology to reduce cabling requirements.

This makes the product ideal for modular machine layouts. “Even prior to last year’s lockdown causing a sudden need to adapt, one of the prevailing trends we’ve witnessed in the process and packaging industries is towards flexible designs,” explains Stephen Hayes, managing director of Beckhoff in the UK. “This prompted the launch of our Automation Without Cabinets concept last year, which we’ve put physically in front of visitors at the PPMA event.

“At the heart of the concept is our EtherCAT P technology, which allows data and power to be shared over a single standard Ethernet cable,” he continues. “This reduces cabling requirements, which in turn provides new freedom for machine builders and plant engineers alike.”

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Cold fogging device offers benefits to combat C-19 issues

G&S is a company that supplies the UK and Ireland with industrial cleaning equipment and at the PPMA Show, it demonstrated products used for disinfection, most notably its ST83 cold fogging device. Sales of this particular product surged during the first lockdown last year due to its ability to disinfect vehicles as well as sites.

G&S is the official distributor of RM Suttner products in the UK. Other offerings include an antimicrobial hose called Hygiene Ultra 40 which has been proved to offer an 82% antiviral efficacy against the virus after only two hours of exposure. This hose also reduces the risk of cross contamination within food factory environments.

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Zebra Technologies Corporation has entered the fixed industrial scanning (FIS) and machine vision (MV) markets and demonstrated its new portfolio of solutions that enable track and trace capabilities and quality inspection of manufacturing work in process during the PPMA Show.

The company’s suite of smart cameras is unlocked by Zebra Aurora, a unified software platform that can easily set up, deploy and run both cameras and scanners, which it says, fulfils businesses’ needs for simplicity, speed, productivity and efficiency. Leveraging the same rugged stationary hardware, Zebra’s fixed industrial scanners and MV smart cameras can inspect production lines and product movement processes, helping improve quality in manufacturing, warehouse and logistics environments.

As part of its move into the FIS and MV markets, Zebra has acquired Adaptive Vision, a provider of graphical MV software for manufacturing and other industries.

New dispenser handles paper tape to deliver sustainability

At the PPMA Show, Carlton Packaging demonstrated the new Xtaper, a compact, hand portable tool for applying gummed paper tape to cartons. This patented new dispenser allows both plain and reinforced paper tape to be used by operatives, overcoming the limitations of desktop machines.

The Xtaper provides a low-cost, tamper-evident seal for clients.
Rigid couplings are designed to add benefits to food equipment

On the Acorn Industrial Services PPMA Show stand, designers of food processing, baking, and packaging equipment learned about the benefits offered by the Nypatch anti-vibration hardware, precision honed bores, and high torque of Ruland rigid couplings.

Ruland straight bore rigid couplings are manufactured with precision honed bores for concentricity to ensure the coupling does not introduce misalignment or vibration into the system. This is designed to reduce wear on components such as bearings and shafts and helps maintain consistent system performance.

Ruland supplies clamp type rigid couplings with proprietary Nypatch anti-vibration coating to prevent screws from loosening during operation. Nypatch is a 360-degree coating applied to several screw threads allowing for multiple screw insertions and providing the necessary dissimilar material to prevent galling on stainless steel type couplings.

Rigid couplings from Ruland are available in one- and two-piece clamp and set screw styles with inch or metric bores in straight or step configurations giving system designers a wide variety of standard options.

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Latest 3D bin picking unit was demonstrated

Multipix Imaging demonstrated Photoneo’s award-winning 3D vision bin picking studio system integrated with Yaskawa’s new GP4 robot at this year’s PPMA Show.

Multipix and Yaskawa have been hard at work to deliver a truly powerful 3D bin picking demonstration to show visitors to the stand how robust and adaptable a true 3D system can be.

Photoneo manufactures the system and is a key supplier of Multipix and of 3D products to the market. The heart of the unit is Photoneo’s PhoXi 3D fringe pattern projection scanner along with robots manufactured by Yaskawa.

The unit is scalable from small cells with a scanning volume of 118 mm x 78 mm to large cells with volumes of 1954 mm x 1459 mm with point cloud resolutions down to tens of microns. It is also configurable to a wide range of other robot manufacturers’, cells and grippers if customers prefer.

In operation, it is fast to set up, offers high accuracy, low occlusion, CAD or AI based matching and passage planning with robot collision avoidance. Being able to showcase this product in collaboration with Yaskawa made the show very special for us and well worth the wait, said the company.

Automatic setup configuration means labeller range can almost run unaided

You can now configure almost any ALTech labeller, specifically the ALine machine series, with an automatic setup configuration option made possible by multiple servo motors replacing handwheels on the various movement axis of the machine. This is combined with the already standard central management control interface, which already stores all electronic device settings.

Apart from label reel loading, the machine launched at the show almost sets itself up entirely automatically, with the powered movement of the various devices to the correct position for the product recipe selected without operator intervention.

‘Intelligent changeover’ is an affordable option

This reduces changeover time and all at an affordable rate, says the company.
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We have the solution. Position. Transport. Rotate.
It is true to say that the speed of developments seen in the pharmaceutical and healthcare industries in the COVID-19 years have been nothing short of remarkable. Indeed, the global pandemic seems to have fostered a new approach to innovation across the sectors as our feature – covering the next 23 pages – demonstrates.

There’s been exciting advances in the field of personalised medicine made possible by progress in biopharmaceutical engineering during the pandemic; there’s been more equipment designed and developed to operate in clean rooms, there’s been advances in sterilisation techniques, there are new coders to cope with international legislation and a whole host of technology and services that sit somewhere in between.

And as pharma giant Pfizer has started to give people oral solid doses against C-19 as part of a new clinical trial, and Merck and its partner Ridgeback Biotherapeutics conduct late stage trials with their tablet, it is likely that other drug manufacturers will follow suit in taking steps to develop the first antiviral tablet or capsule.

And this is where Loma Systems’ upgraded IQ4 Lock-PH pharmaceutical metal detector comes in, as it is capable of inspecting up to 30,000 tablets or capsules a minute.

Visual Components argues that when it comes to accelerating the time from lab bench to commercial use, technology such as the company’s 3D manufacturing simulation software can speed up and scale up production.

“It seems a global pandemic has fostered a new approach to innovation across these sectors.”

In operation, the systems minimise waste of raw materials by recovering up to 95% and also reduces the consumption of energy, water and cleaning agent. Pigging systems are also beneficial for their hygienic purposes.

GREENER PRODUCTION

Also, says Kavisha Parmar, marketing co-ordinator at the company, users can create a greener production line while also saving money as the return on investment is said to be just one year.

Meanwhile, Romaco Noack describes its compact Unity 300 blister packaging line as a climate-neutral machine as its features meet all the requirements for sustainable pharmaceutical production. It is available from Pharma Machinery in the UK.

“By deploying this approach, users can quickly move through the process of designing and building models.

“This kind of simulation can design, optimise and verify the packaging process and production feasibility while reducing time taken and cost incurred,” he explains.

Another demand now seen in the pharma and healthcare processing sectors is the need for ‘greener’ medicines. And, according to OEM Automatic, a step towards a greener production line starts with the use of a pigging system which cleans, inspects and maintains pipelines without having to shut down the system for long periods.

In operation, the systems minimise waste of raw materials by recovering up to 95% and also reduces the consumption of energy, water and cleaning agent. Pigging systems are also beneficial for their hygienic purposes.

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Today, in late 2021, it is hard to remember a life before COVID-19 and on this spread, we catalogue just some of the technology that has been developed to help manufacturers producing PCR and lateral flow testing kits, those delivering face shields and masks, others handling hand sanitisers and even the handling of blood collection tubes.

Already an experienced supplier of flow wrapping systems to the UK’s healthcare sector, Paramount Packaging Systems has had to respond to the challenges of a lifetime over the last 18 months and is currently facing up to yet another challenging winter period.

As the distributor of Fuji Packaging Systems’ range of flow wrapping equipment to the UK and Ireland; when Paramount Packaging Systems were contacted by multiple companies looking for the supply of machines capable of packing lateral flow devices in fully sealed hermetic packs, it called on Fuji’s European stock of machinery, and also the ability of the Japanese company to fast track orders through its new Nagoya factory, which opened earlier this year.

Paramount put together a package to supply fully automated flow wrapping lines, running at up to 120 packs per minute that include automated desiccant dispensers, camera systems for checking the device, presence of desiccant, and also checking the printed text on the pouch was present, correct and legible.

A full validation package was also included, covering the risk assessment of the line, installation and operation qualification, and a site and factory acceptance test procedure allowing the supply and installation of a fully validated system from a single source.

Since the start of the pandemic in March 2020, the company has supplied nearly 25 Fuji packaging systems, the majority of which were for packing lateral flow and PCR test devices.

CRITICAL CARE UNITS
Other Fuji wrappers were supplied for the wrapping of respiratory care products, to be used in critical care units in hospitals.

South Korea delivered a quick roll out of large scale testing as part of its response to the pandemic and to become a reality, it was necessary that Korean pharmaceutical manufacturers quickly adapted to the demand for testing kits. This saw Machine Builder HD Tech tasked by a South Korean pharma company to create a production cell for assembling COVID-19 test kits.

In need of a reliable solution quickly, HepcoMotion, a British manufacturer of linear transport and positioning systems, became the supplier of choice for the company.

HD Tech chose HepcoMotion’s ready-to-fit driven track system (DTS) as the transport and positioning method, and as the DTS comes as a complete package, including drive, rails, bearings, carriage plates and all other components, it reduces design and build time.

As a supplier of machines dedicated to handling medical packaging, shawpak has been adapting its technology to design and build PPE manufacturing equipment along with offering standard shawpak thermoformers to be used for the packaging of C-19 vaccines.

The company has also been involved in designing and building machines to manufacture millions of face shields. Indeed, its design, manufacturing and engineering teams saw the two machines completed and in production within just six weeks. The capacity of both

PPMA members have been delivering technologies to answer many questions posed by the global pandemic.
of these machines meant the company was able to produce 1.5 million face shields each month.

More recently, the company has supplied ten rotary thermoform machines to pack a C-19 vaccine delivery device in the US (Machinery Update – July/August issue).

Meanwhile, Antalis Packaging’s fast turnaround in the recommendation, supply and installation of new packaging machinery helped a British multinational chemicals company to quickly launch its hand sanitiser business. The solution comprised a Masterline 320 carton closing and sealing machine, a Lantech Q300 semi-automatic pallet wrapper, with a power pre-stretch of up to 300% and production speed of up to 25 pallets per hour, connected by a series of bespoke conveyors.

**BLOOD COLLECTION**
Finally, Optima Automation completed a comprehensive system to assemble blood collection tubes, important in C-19 times, including the dosing of additives. This consists of an Optima BCT-200 processing line and an Optima BCA-200 assembly machine which saw the machine acceptance carried out online and streamed live for the customer to avoid any risk of delaying the project. Optima developed a system especially for blood collection tubes which combines all the functions required and coordinates the individual processes demanded. The modular machine base was able to cover the entire process, from the assembly of the closing caps to the packaging of finished blood collection tubes.

**Testing times call for tried and tested solutions**

Two ABB IRB 1200 industrial robots are helping a Taiwan based company to speed up and accurately test up to 1,800 COVID-19 samples a day. The solution resolved the trained staff shortage and the risk of staff contracting the virus, enabling testing to proceed 24/7.

To see how robots can help solve your labour shortage and testing problems visit: [https://bit.ly/ABBRobot_Healthcare](https://bit.ly/ABBRobot_Healthcare)
Pharmaceutical companies need to produce more medicines in a shorter timeframe and at a lower cost and, argues Julian Ware, UK & Ireland sales manager for ABB Robotics, automation in the form of robots is helping pharmaceutical companies to overcome these challenges. “With options now available specifically for pharmaceutical applications, robots are opening new opportunities for the industry to increase productivity while meeting stringent guidelines set by the Food and Drug Administration (FDA),” he says.

With pharmaceutical producers under increasing pressure to speed up production times, new ways need to be found to test and develop remedies and bring them to market more quickly. Accurate, fast, flexible and tireless, robots are well suited to the repetitive tasks involved in testing, processing and packaging millions of identical products, with the additional benefit of being able to quickly switch to another task if required.

A particular development has been the arrival of Selective Compliance Articulated Robot Arm (SCARA) robots. Tabletop mountable and with a small footprint, SCARA robots suit confined spaces typical of pharmaceutical manufacturing. SCARA robots are also speedy and repeatable, performing articulate point-to-point movements to enable precise and repeatable placement of items or products.

SCARA robots can also be used to test pharmaceutical products during the research and development stage. Historically, this stage in the pharmaceutical industry has been a complicated, time-consuming process involving the input of numerous skilled people. As robot technology has been developed to meet the needs of production, thousands of potential pharmaceutical products can be developed and tested in a fraction of the time that was previously required.

Ware believes that robots also have a role in reducing any contamination calamities and, by using integrated vision, track and trace can also be delivered. “Robots can also help create a healthy and safe working environment by taking over repetitive, mundane and heavy-weight tasks as well as handling toxic chemicals and minimising staff exposure to harmful substances,” he says.

The ability of robots to help protect human workers against exposure to harmful bacteria was a key driver behind a robotic solution developed for handling COVID-19 samples in a vaccine testing application jointly carried out by Thailand’s Mahidol University and the country’s Institute of Molecular Biosciences. Known as the AI Immuniser, the solution uses an ABB YuMi cobot and IRB 1100 industrial robot working together to handle virus samples and also antibodies.

The AI-Immuniser consists of two units – Unit A and Unit B. In Unit A, the YuMi robot handles the complete human immune neutralisation testing process. With its human-like arms and grippers, the robot is perfectly designed to perform the handling and picking tasks that humans are adept at, enabling it to work with standard laboratory tools. During this process, samples of the COVID-19 virus and different antibodies are mixed and tested before being analysed with AI. To ensure that the formula is reliable, the process is repeated, with the vaccination...
formula from unit A being transferred to unit B where ABB’s IRB 1100 six-axis industrial robot completes the overall re-testing process. The IRB 1100 works with multiple samples, accelerating the work process and enabling this testing to be repeated continuously.

By using robots to automate these tasks as part of a closed system for aseptic processing, the risk of exposing human operators to the virus is also minimised.

Meanwhile at the packaging stage, integrated vision technology enables robots to effectively ‘see’ and recognise products more effectively, greatly reducing errors.

The benefits of a vision integrated robot system have been demonstrated by a US pharmaceutical company, which installed a special version of a Flexa cartoning machine. Designed and installed by Industria Macchine Automatiche in Italy, the cell comprises two ABB IRB 340 which, using vision technology based on Cognex hardware, pick droppers from a belt where they arrive scrambled.

“Continued developments in robot technology suited to the pharmaceutical industry will be driven by more and more companies installing robot cells and experiencing the benefits,” says Ware.
Detecting tiny particles in tablets

The THS/PH21N-FB metal detection system from CEIA allows for the detection of extremely small metal particles on all types of tablets, with automatic rejection of any product that fails to meet the required standard. Available from MDS in the UK, it boasts a throughput rate of between 40,000 – 60,000 tablets an hour and is capable of processing tablets in sizes up to 35 mm in diameter.

The metal detector has ultra-high sensitivity to all magnetic and also non-magnetic metals, enabling specific inspection against extremely small metal particle contamination. It is capable of storing up to 500 product profiles for different items being produced which are selectable by local operator programming or remote network software.

This system will also store up to 10,000 events for quality control purposes, or 100,000 events if the IXC network board option is included.

The flat conveyor based inspection system has a digitally adjustable belt speed and a high immunity to any environmental interference. It also has an automatic ejection management mechanism with synchronisation with the product as it transits through the detector. This includes verification of the successful ejection of the contaminated product.

A buzzer and three-coloured warning lamp (to signal alarm, fault and test request) is included in the package, along with a ‘bin full’ photocell and air pressure kit. In addition, mounting and dismounting of the belt is designed to be very easy.

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Ultrasonic welding equipment bonds multiple fabric layers together and attaches earloops

Ultrasonic welds aids mask maker

When German maker of respiratory masks Univent Medical received a contract to dramatically increase production of its Atemious Pro FFP2 respirator mask it initially hired Autefa Solutions Switzerland, a global machine builder which used entry-level ultrasonic welders that could support ordinary production rates, but could not deliver the consistency, repeatability and the required strength at increased production speeds demanded.

Autefa therefore contacted Emerson for a solution, who recommended retrofitting the four ultrasonic welding stations with high-performance Branson DCX series ultrasonic power supplies and newly optimised ultrasonic production tooling that included new converters, boosters, and weld sonotrodes specialised to each welding task.

Emerson fulfilled the order that included 32 ultrasonic welding power supplies and the required tooling, in less than six weeks.

"The experience and responsiveness of Emerson’s Branson ultrasonic welding team enabled Autefa to start the equipment rebuilding programme quickly, without a long learning curve,” explains André Imhof ceo of Autefa.

And in operation, Univent felt the impact right away. For example, two of the four ultrasonic welding stations could attach the right and left ear loop simultaneously and reliably in less than a quarter of a second.

“Due to the reliability and performance of the new Branson power supplies and weld tooling, we were able to increase production to 4.5 million Atemious Pro FFP 2 respirators each month,” says Thomas Vosseler, director and co-owner of Univent. He estimates that the welding equipment “enabled 95% efficiency of the existing automated lines, compared to less than 60% with the initial ultrasonic welding units”.

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Ultrasonic welding equipment bonds multiple fabric layers together and attaches earloops.
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Flow is bringing benefits to APIs

Piab’s vacuum conveyor is being used by Tradichem to process active pharma ingredients (APIs) with ease

In developing its Hipering process to miniaturise active pharma ingredients (APIs), Tradichem has used Piab’s vacuum conveyor to protect the product from contamination while supporting compacting by the constant feeding of the process. The process developed by the Spanish company sees the transformation of raw materials based on a sequence of processes that modify the physical properties of the starting material while keeping its purity and also chemical specification.

“The advantage of using the piFlowp vacuum conveyor for feeding the Hipering system lies in its closed system, which prevents the API from taking on moisture and from being contaminated from outside sources,” explains Christina Lozano, chemical engineer and site manager at Tradichem. “The ingredient does not need any manual handling as it is sucked in from the bin, delivered in through the vacuum created by the conveyor, allowing it to run automatically through the system until the final granules are derived.”

The Hipering process has been developed to miniaturise APIs, as demanded by more and more pharmaceutical manufacturers today, but keeping the stability and purity of an API is key to the success of the supply chain. The system used is an upright set-up, as the vertical pressure is an important factor in achieving the compactness required. The pressure is further enhanced by ensuring continuous feeding of the hopper which is equipped with a sensor measuring the fill level. It automatically activates Piab’s piFlowp vacuum conveyor when the level drops below a certain point. Thanks to the homogenous load of the hopper through the continuous feeding by the conveyor, a consistent product is achieved with the same density within the whole production batch.

The simple cleaning of the Piab vacuum conveyors was another factor in their choice, says Lozano. “Thanks to the quick-release system with filters and gaskets, the entire conveyor is easy to clean.”

Feature: Pharmaceuticals and healthcare
moving parts are present in the vacuum pump, the system is designed to work maintenance-free. Piab says its conveyors for powders and bulk solids recommended to Tradichem by the manufacturer of the compactor are perfectly matched to the high standards of operational safety and hygiene demanded in the pharmaceutical industry.

can be disassembled, cleaned and reassembled for the next batch in production in just a few steps,” she says. “And it is important to us that the conveyor can be cleaned not only in the shortest time possible, but also thoroughly so that no residues from the previous production run can possibly contaminate the next product batch that we are handling.”

**COAX TECHNOLOGY**
The vacuum is generated by the COAX technology by the discharge of compressed air from a multi-stage nozzle system. This delivers efficiency as well as an absolute vacuum level of 250 mbar maximum. “Blockages in the delivery line are almost impossible,” explains David Sanchez, sales director vacuum conveyor for Southern Europe at Piab. Since no mechanically
Feature: Pharmaceuticals and healthcare

Cleanrooms have to deliver hygiene for pharma needs

The pandemic has thrown into sharp relief the importance of cleanrooms in the manufacturing of medical, pharmaceutical and healthcare products and here, we highlight just some of the latest options available to the sector.

Humans shed and re-grow outer skin cells every 27 days, equating to about 1,000 new skins in an average human’s lifetime. Even in a cleanroom environment, a worker will shed 600,000 particles of skin per hour. With this in mind, Nigel Smith, managing director of Shibaura Machine partner TM Robotics, says this is why cleanroom robots offer an excellent option for eradicating the risk of human contamination.

However, while not nearly as flaky as humans, just a small amount of dust shed by a robot can damage some sensitive products while in production which is why specialised cleanroom robots are built from non-dusting materials for this very reason.

Manufacturers definitely need to choose the correct type of robot and implement it effectively. “Cleanroom robots can only be used if they meet the specific cleanroom standards – not just any robot will do,” says Smith. Choosing the correct robot for this type of application depends on the classification of the robot, compared with the strictness of the cleanroom environment, he says.

While the medical, pharmaceutical and life sciences sectors do not have the same number of robots operating within manufacturing roles as the automotive industry, the applications they undertake are often highly sophisticated and performed under stringent regulatory and environmental conditions. “The life-sciences sector is a great example of how robots can make a valuable contribution,” says Stäubli’s Simon Jenkins. “An excellent example of this is the system used by Belgian start-up company Texere Biotech, to process bone material into implants.”

This fully automated system uses femoral heads (the top end of the human thigh bone) and processes them into cuboid implants know as ‘bone allografts’. Six identical TX60 Stericlean robots supplied by Stäubli handle this bone replacement tissue under cleanroom conditions. In addition to increased efficiency in the processing of these femoral heads, this full automation means each bone allograft block has full traceability.

Other advantages include the reliable removal of virus transmission and the elimination of the cross-contamination risks between the bone tissues from the different donors.

Research and Markets forecasts that the market for cleanroom technologies will grow by over 7% by 2025

Meanwhile, tray sealing technology from Proseal is proving ideal for the safe and efficient packaging of a variety of pharmaceutical products and medical devices. Proseal’s cleanroom compatible machines have replaced the time-consuming manual placement of the lidding onto the trays for a faster and more efficient continuous sealing operation that can help to reduce material usage without compromising on pack integrity.

Typical applications include medication, syringes both empty and filled, surgical instruments, surgery kits, artificial joints and implants as the machines can handle trays in many different tray designs and materials with a wide choice of sealing films, such as Tyvek woven material, gas barrier...
and UV blocking varieties.

At the same time, Packline has designed a bespoke interchangeable drum lifting attachment, with a platform attachment and an adjustable arm attachment, in response to a customer requirement in the pharmaceutical industry to handle drums of chemicals in a cleanroom environment, as well as a high-pressure pump in the assembly area, using the same lifting machine. This versatile lifting solution incorporates two interchangeable attachments which can be easily fitted or removed from any model of Packline ‘Compac’ lifting machine that is fitted with the quick release system. The drum platform attachment handles drums of ingredients in a high care cleanroom environment and a safety rim retains the drum in place during the subsequent lifting operation.

RARUK Automation offers components from IEF Werner that are suitable for use in cleanrooms. For instance, the varioSTACK CF together with an integrated IEF Werner product handling solution allows manufacturers to benefit from short cycle times within cleanroom conditions – Class 8 according to ISO 14644-1. In operation, the varioSTACK CF can pick up loaded trays weighing up to 20 kg and the tray changing time is less than five seconds. The product handling gripper can pick up components weighing up to 5 kg (including the gripper) and has a repeat accuracy of 0.05 mm.

At the same time, IEF Werner has expanded its standard linear drive products to include a range with metal belt covers which are also suitable for use in cleanrooms according to ISO 14644 from class 1 to 8 as the metal belt protects against the ingress of dirt or particles while preventing the release of particulates into the environment from the unit.

Proseal’s cleanroom compatible tray sealing machines are adaptable

Proseal’s cleanroom compatible tray sealing machines are adaptable

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Healthcare and personal care products are now following the shelf-ready packaging (SRP) trend, where the manufacturer’s unit of distribution goes straight onto the retailer/user shelves, following FMCG desires to display products attractively.

“These trends in healthcare marketing have been helped by liberalisation of the laws governing the distribution of prescription medicines where they created, often for the first time, direct contacts between supermarket groups and the wider family of healthcare companies,” explains Patrick Fleming, managing director of Propack. “As a result, supermarkets have become extended-hours pharmacies and, in the process, have also attracted a wider range of customers.”

One company delivering on this trend by investing in SRP automation is Thornton & Ross Company, (T&R) a producer of a range of medicines covering OTC (over-the-counter) healthcare to prescription products. Propack was invited by the T&R marketing and project engineering teams, to work on its first brand to be selected for full SRP automation; the COVONIA cough medicine product range.

The new presentation for COVONIA is a wraparound display tray, in shelf-ready sizes suitable for three formats (of glass bottles), in single facing trays of five bottles. The automation project presented challenges, added to which traditional packs of film-wrapped dozens were still going to be required.

Working with the T&R team, Propack and its supplier Christ Packing Systems, helped to develop a user-friendly, easy to changeover, twin-track, universal SRP line. The new display presentation for COVONIA was an immediate success, and stimulated interest in similar solutions across the other Thornton & Ross product lines.

Next to be selected for SRP automation was the company’s skincare range, which includes products such as the CETRABEN and ZERODERM in cream and lotion form. These products are distributed principally to hospitals, while also being available for prescription pharmacy and OTC markets.

The SRP brief for this range was again to deliver single-facing display-tray packs, while supplying machinery which would also allow packing into larger traditional wraparound shippers, for distribution to hospitals and to the wider market. A new fully automatic production line was required to meet the packing needs of these multiple formats and distribution packs which saw Propack deliver a turnkey project to meet T&R needs.

With the C-19 pandemic, demand for T&R’s ZOFLORA’s brand of concentrated disinfectant soared, which meant that extra production capacity was needed. As well as installing a new full production line, which could operate at 300 bottles per minute, the company also redesigned all the shipping cases into an SRP format. Propack was given the challenging task of delivering a turnkey project that had to be in production within eight months of order.

T&R next turned its attention to marketing its extensive range of medical products, which included the Scottish and North of England exclusive to T&R line, and stimulated interest in similar solutions across the other Thornton & Ross product lines.

The equipment is handling the SRP formats for retailers as well as different transit packs for hospitals. Propack has been responsible for many turnkey solutions to deliver SRP options for Thornton & Ross brands.
products in tubes, from KY Jelly to Flexitol skincare, with cartons to be presented standing vertically on the shelf, in display trays.

Again, a new production line was required to deliver the SRP formats. The selected line speed runs at 200 tubes per minute and are packed in SRP display trays, with carton counts as low as 4 or 6 cartons per tray, in either single or double facings.

“This presented us with a challenge,” Fleming tells Machinery Update, “which is why the tube filling and cartoning equipment we selected for this project was from Norden in Kalmar.”

The cartons then transfer downstream to carton collating, tray-loading, wrapping, case-packing and palletising equipment, which was all manufactured by Christ Packing System, with Propack selected to manage the supply, once again as a turnkey project.

**COMPLEX DEMANDS**

These projects demonstrate the complexities and the myriad SRP options that are available to users in both healthcare and, of course, in other manufacturing sectors.

There are many forms of SRP packaging, starting from pre-erected, standard-size, board or pre-moulded trays, up to high-speed systems for delicate soft-packs for products packed in sachets, pouches, in form, fill and seal or block-bottom formats.

“The lower-count groupings of many SRP packs present challenges for machinery designers, where end-of-line speeds become ever higher,” explains Fleming.

Across the projects described here, the range of SRP machinery installed covers glass bottles handled at 150 a minute; creams in pump packs delivered in wraparound shipper blanks and high speed cartoning and collation for disinfectant bottles...

“Perhaps the most demanding of the T&R projects was the grouping and loading of smaller carton counts, into tight-fitting trays, erected on-line, followed by banding of the SRP groups,” says Fleming. “This is followed by case-packing when the customer requires, or naked palletising, with pallet layers supported by occasional layer cards for pallet transport stability.”

Automation could help you to increase productivity, improve accuracy and achieve cost savings. But, for the best results, every machine in the line must be seamlessly integrated.

That’s where Karmelle comes in. We’ll automate your liquid packaging process, designing and manufacturing a turnkey system to suit your product.

With a wide range of British-made liquid filling, capping and labelling equipment to choose from, you can avoid consulting multiple suppliers.

And, because our modular machines are designed to work together seamlessly, your line will deliver accurate, efficient results.

Post-installation, we’ll provide training, spares and servicing support – ensuring that production continues to run smoothly.

Call us on +44(0)1484 533356 to discuss your liquid packaging requirements.
Folding unit is a success

CST Pharma says its purchase of an H+H pocket folding unit, transfer unit and vertical delivery unit has helped it to increase productivity significantly. Purchased from Friedheim International, the machine was installed in July and has quickly become a core part of the company’s production setup.

“In order to improve our efficiency, we required a solution to remove the manual processes and speed up our production output,” explains Lee Adkins, CST Pharma’s assistant general manager and print production manager. “This new folding solution has helped to increase productivity throughout our production processes, which will in turn give us the opportunity to meet deadlines faster.”

01442 206100
www.friedheimpackaging.co.uk

Managing the label lifecycle

Acrovision is offering Validator CFR21 which it says will eliminate many labelling stresses

Acrovision says it has tackled issues such as reducing the cost of managing and documenting the entire labelling lifecycle with no more paper-based systems, no more risks and only an increase in productivity, efficiency, and compliance. All of these requirements are answered by the Validator CFR21, which is eliminating most of these common stresses found in the pharmaceutical industry and will also allow for companies to meet requirements in an all-in-one system, without added expense in the process.

Furthermore, the FDA is continuously expanding the compliance to new areas of new automation systems or drug discovery, and by having this Validator in place, this will ensure constant compliance, explains the company.

In addition to the standard Validator specification being able to check for correct and legible barcodes; correct and legible text such as sell by/use by date codes; correct and positioned promotion labels; and packaging quality, such as fill-level and missing cap detection, the Validator can now provide an additional range of 21 CFR-11 compliancy. This new offering allows Acrovision to provide a more complete solution to the biotechnology, drug, and medical equipment manufacturing industries, who are always looking to improve their quality and profitability, at an affordable cost.

“What makes our Validator CFR21 stand out, is the fact that it is custom tailored to each customers’ needs at unbeatable pricing,” explains marketing manager at Acrovision Anna Pavan.

“We can partner with label applicator/original equipment manufacturers of packaging machinery to provide a complete 21 CFR-11 compliant solution to the end-user,” she says.

0845 337 0250
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High-speed is opening doors

In a recent project for a pharmaceutical company producing containers and delivery systems for injectable medicines that has been a client for more than ten years, Efaflex has replaced the older or faulty doors with the now proven SRT-ECO as part of an ongoing programme to improve the company’s facilities. This high-speed fabric roll-up door features a space saving, slim frame and delivers on a price-performance ratio.

01952 582641
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Stress is a success

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Increased demand for its over-the-counter (OTC) nasal sprays led a pharmaceutical manufacturer to require an exceptionally detailed new filling line with a combination of bespoke elements and proven technology. Subsequently, Mengibar installed an all-in-one monoblock solution that has resulted in increased speeds which now reach over 200 bottles per minute, while also delivering reductions in wastage and energy usage.

Holmach is the sole UK distributor for Mengibar equipment who were originally considered for the project as a result of their specialist experience in the handling of sensitive products. Many non-prescription medicines are at risk of changing their nature when they come into contact with other materials or air and Mengibar was able to provide a cohesive solution that prevented this from happening, says Holmach.

By integrating the processes to fill the main container, inserting the nasal valve and finally securing the overcap, has taken away the risk of any external contamination.

To further enhance the control of such sensitive products, Mengibar’s OTC series includes laminar flow hood equipment with prefilters and HEPA filters, inert gas flushing, recovery trays and special guarding.

Mengibar’s filling line has the integrated inspection systems included

Solution for nasal sprays
Filling line has delivered accuracy for pocket-sized packaging process gains

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New services have been developed to help all customers

Uhlmann Pac-Systeme has definitely not been idle in these unprecedented times. As well as developing an efficient cold chain tracking system for an international pharmaceuticals company to handle C-19 vaccines (Machinery Update – July/August issue), it has supplied a BEC 300 blister line comprising a blister and cartoning module, supplemented by two end-of-line packers, to one of Japan’s top ten pharmaceutical producers.

And what’s more, this line received the customer’s approval this June – after a successful Factory Acceptance Test (FAT) via video conference in which an OEE of over 90% was achieved under test conditions.

A more recent development has been an integrated ordering process between Bayer and Uhlmann to allow the spare part for a pharmaceutical line to be secured with just one click. Thanks to the integration of Uhlmann eCommerce into its own ordering system, the purchasing process used by Bayer employees has been greatly simplified.

Since the introduction of the cloud-based SmartBuy ordering system, Bayer has been working on simplifying its purchasing processes. The life science company has now taken a major step forward in terms of ordering spare parts for pharmaceutical packaging lines: Bayer has integrated SmartBuy and the eCommerce of Uhlmann Pac-Systeme. Now, users can purchase spare parts from the Uhlmann eCommerce set-up via their own procurement system – the keyword being eOrdering. There’s also elnvousing, whereby invoices are also sent digitally. The advantages for both sides are obvious: manual entries can be reduced, leading to significantly lower error rates, while those responsible at Bayer get to benefit from simple, time-saving processes.

“The B2B integration with Uhlmann is an important milestone and will enable new, up-to-date processes in terms of the procurement of spare parts,” emphasises Dieter Pfeifer, category manager for equipment & PCT, EMEA at Bayer.

“We are very pleased to have a partner in Uhlmann who is making developments at both the product and process level while maintaining a future-focused approach,” he says.

For Uhlmann, this is another important step on the digital journey in the pharmaceutical industry. “By integrating all the functions of Uhlmann eCommerce, we have created an excellent customer experience and a high level of transparency – and that’s what makes good service,” says Christoph Werz, manager business development at Uhlmann.

WEB SHOP IS AVAILABLE

“In general, customers are increasingly asking for B2B integrations like these and we intend to be at the forefront of this,” he continues. “With this in mind, we were happy to accept our customer’s challenge and successfully implemented the first link with Bayer.”

However, since March 2021, customers without integration have also been benefitting from Uhlmann eCommerce. The new web shop offers more than 100,000 available spare parts, transparent delivery times and simple, intuitive operation.

One click secures a spare part delivery
No other photoelectronic sensor affected industries as profoundly as the wintec product series by wenglor known for its slanted edge. wintec enables objects to be detected regardless of color, gloss, surface texture and inclination angle.

- V4A Stainless steel IP69K with ECOLAB
- Resistant to cleaning high pressure at up to 100 bar and 80 °C
- Interchangeable PMMA lens
- Reproducibility of 3 mm even up to 10 m
- Insensitive to ambient light up to 100,000 lux
- Digital and analogue options
- No mutual interference with up to 6 sensors
- IO-Link 1.1 with COM3 and writable process data
- Built-in acceleration sensor
Terminal sterilisation of parenteral drugs is subject to differing parameters depending on both medication and primary packaging which makes it very important to know exactly which sterilisation process is suited for which container and content. Whether heparin preparations in syringes or infusion solutions in bags or bottles, all parenteral injectables place high demands on the sterility of the liquid contents. Any potential microbial contaminants must be killed or inactivated. Whenever feasible and depending on the active ingredients, regulatory agencies require injectable products in their final primary containers to be terminally sterilised to ensure the safety of both product and the patient.

Therefore, pharmaceutical manufacturers must decide on the right process for each specific drug application. During the drug development process, sterilisation tests help to determine each product’s processing parameters, from supporting pressure to loading procedures. Depending on the medication and the approved procedure, different processes are available to maintain the containers’ integrity and to ensure the filled ingredients remain sterile and intact.

The vacuum-steam process is usually used to sterilise solid and porous equipment. It is also used for terminal sterilisation of closed containers like pre-filled ampoules. The remaining air is completely evacuated from the pressure vessel, making sure that saturated steam can penetrate even into the tiny cavities of porous items such as plastics stoppers. The latter are subsequently heated and sterilised using pure steam. Depending on the type of load, the process finishes either with a vacuum drying or jacket cooling step.

This makes vacuum-steam sterilisers suitable for any pressure- and vacuum-resistant closed containers like pre-filled ampoules. A process using a steam/air mixture atmosphere external to the component allows users to maintain pressure equilibrium between the inner and outer environments. The steam/air mixture process is particularly suited for open, semi-sealed and completely closed containers such as vials and pre-filled syringes, as well as mono- and multi-chamber bags. It facilitates product removal in a dry condition at the end of the cycle.

In operation, the direct inflow of steam, which is circulated by fans located inside the pressure vessel, provides energy for heating and sterilisation, while cooling is via internal heat exchangers supplied by chilled water. Supporting pressure can be adjusted as desired, thus preventing deformation, stopper movement and container breakage throughout the entire cycle.

For larger volume containers such as IV solution bags, the terminal sterilisation process...
can also be performed using a superheated water shower. As the name of the process indicates, the containers are continuously showered by circulated superheated water during the entire process. Heat exchangers in compliance with FDA requirements, which are located next to the pressure vessel, serve as the energy source for the heating and cooling steps.

This hot water shower approach is most used for closed containers ranging across different batch sizes.

Once a pharmaceutical manufacturer has chosen and developed the ideal sterilisation process, it must undergo validation. And to achieve this, pre-tests including the essential process parameters of loading pattern, temperature, pressure, heating and cooling ramps are key. These map the sterilisation processes required by different products and identify whether a new product or primary packaging material can be sterilised at all. The tests also provide pharmaceutical and packaging manufacturers with important indications to further optimise their products and sterilisation processes.

**VARYING HOLD TIMES**

Depending on the nature of the solution and its propensity to microbial growth, the hold times of the solutions vary considerably and must, in certain cases, be kept to a minimum. The sterilisation temperature has to be reached and maintained in all corners of the steriliser for the defined timespan. At the same time, the defined pressure must also be upheld.

Finally, validation also includes the effectiveness of the entire sterilisation process. In the case of any approved drugs, the required sterilisation procedure has usually been defined. In this case, tests can deliver valuable insights regarding the variables that need to be adjusted to achieve even more efficient processes and cycle times. The same applies to containers.

If the correct procedure and parameters are still to be determined, test runs can be conducted as a kind of “stress test” to answer questions regarding sterilisation and packaging quality, as well as the most suitable procedure.
Domino says its Gx-Series printers allow individual barcode or pixel shaving within 2D codes for high-grade printing of larger size Data Matrix barcodes to help ensure that manufacturers are compliant with the new Russian crypto code legislation, Chestny ZNAK.

“The Russian crypto code poses a challenge for pharmaceutical manufacturers, who are faced with the need to include more data within a Data Matrix code, without impacting line speed,” explains Bart Vansteenkiste, Global life sciences sector business development manager at Domino. “To do this requires an exceptional quality printer,” he says.

“Our Gx-Series will enable higher grade printing of crypto codes, at the high speeds expected from a TIJ printer – which will help our customers to maintain production performance, while avoiding the risk of having codes, and therefore products, rejected for sale.”

Under the recent legislation, Russia’s internal regulation commission, Center for Research in Perspective Technologies (CRPT), mandated new serialisation requirements for pharmaceuticals, including over-the-counter (OTC) medicines, and various other products such as tobacco and perfumes.

Designed to facilitate track and trace and protect consumers from counterfeit products, the new regulations place additional demands on the attributes contained within Data Matrix codes. Specifically, the crypto code imposes a 64-bit encryption, 44 alpha-numeric character demand, nearly doubling the capacity of the Data Matrix – and thereby requiring high-contrast print capabilities.

The high-speed nature of TIJ printing makes it the preferred choice for pharmaceutical manufacturers creating Data Matrix codes, over alternatives such as laser and thermal transfer overprinting. With the Gx-Series, Domino says manufacturers will be able to achieve fast-paced, high-quality printing of crypto codes at grade B or above.

“Under the Chestny ZNAK legislation, manufacturers are required to achieve Data Matrix printing at grade C or above,” continues Vansteenkiste. “However, relying on a grade C rating leaves no margin for error.

PRINTERs ARE OPTIMISED

“This is why we have optimised our Gx-Series to achieve grade B or above, to ensure a product that is compliant with the Russian legislation and accepted for sale, while reducing the risk of rejects.” It is expected that by 2024, the Russian track and trace system will cover all industries, from cigarettes and medications to clothing and child nutrition. This means that all manufacturers within the country, producing products for sale at home, and all those outside of Russia manufacturing items for sale within the country, will need to be compliant.

“Serialisation is becoming more standard across the world and in different sectors,” continues Vansteenkiste. “There is an expectation that other countries may choose to follow in the footsteps of the Russian legislation and introduce a requirement for a larger size Data Matrix code for product serialisation and track and trace,” he says.

All Gx-Series printers are now automatically optimised for high-grade printing of larger size Data Matrix codes, allowing customers to take advantage of the capability as and when required.

“By recognising the difficulty in printing larger-size 2D codes and developing a solution to meet this requirement we are helping our customers to be compliant with the Chestny ZNAK and other new and upcoming legislation,” says Craig Stobie, director Global strategic sectors at Domino.

TIJ printers from Domino help meet new Russian rules

Cracking the crypto codes

Domino says its identification coding solutions provide a range of supply chain validation and control, including protecting the consumer against counterfeit pharmaceuticals

www.domino-uk.com
THE LIGHTLINE FLOWPACKER

NO MORE REASON TO PUT DECISIONS ON ICE.

The lightline machines from Schubert can be delivered quickly and are especially attractive in terms of price. With the preconfigured machines, customers can adapt more flexibly to market trends and significantly speed up their time-to-market.

The LIGHTLINE FLOWPACKER is a flow-wrapping machine with robot-supported pick & place infeed and packs a wide variety of products in conventional and sustainable films. It offers an affordable and highly flexible way to automate packaging processes with the most efficient technology on the market while ensuring the highest availability and packaging quality.

The world’s leading FMCG and private label manufacturers rely on Schubert.

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FOR PACKAGING PRODUCTS OR TRAYS INTO FLOWPACKS.

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**Feature: Pharmaceuticals and healthcare**

**Smart sensors can handle harsh settings**

Mettler-Toledo PCE has launched the T60 integrated 360 series of solutions for serialisation and aggregation of bottles and vials in the pharmaceutical sector. The solution gives pharmaceutical manufacturers a 360° picture of a large range of round containers. This enables them to read and verify small product or serialisation codes printed directly onto the bottle or on the applied labels. The new option also checks that all codes are machine-readable, ensuring no smears, misprints or quality issues are contained on the label.

The T60 Integrated 360 series offers two applications:
- **T63 Integrated 360 Serialisation** – This solution can serialise directly to the applied label instead of the traditional ‘label-on-web’ application. It also verifies the content and label quality for defects such as smears or label skew to ensure quality product presentation, resulting in only authenticated product serialisation to be recorded onto databases.
- **T65 Integrated 360 Aggregation** – Delivers aggregation by obtaining the full 360° view of products in-line on the conveyor for final insertion into secondary boxes and cases (whereas existing methods require extra processing for top-down printing of helper codes for bottle and vial). For critical track and trace pharmaceutical applications, the T60 Integrated 360 series provides a range of traceability applications (serialisation or aggregation) across a range of bottle sizes, from 10 mm up to 110 mm in diameter.

**Reducing costs and complexity**

Pharmaceutical firms can add serialisation and aggregation for bottles and vials onto their lines. wenglor's new smart sensors 2K come in a robust stainless steel 316L housing to withstand intensive high-pressure cleaning at high temperatures, aggressive cleaning agents and mechanical influences and corrosion. At the same time, they measure precise distances, reliably detect objects and communicate intelligently via IO-Link.

Long-range laser distance sensors or fork sensors are also available in robust versions for hygienically demanding industries such as pharmaceuticals. In the pharmaceutical industry, production facilities must be regularly cleaned with high pressure and aggressive cleaning agents and these stringent hygiene requirements also apply to sensors installed on the systems themselves. The new 2K series with stainless steel 316L housing meets these requirements thanks to its high protection class IP69K and ECOLAB certificate.

“Splash water, high pressures up to 100 bar and 80° C water temperature or aggressive cleaning agents do not influence the 2K sensors,” says wenglor product manager Christoph Lang. Mounted in a compact housing (35.5 × 18.5 × 17 mm), and thanks to their robust design, the sensors are also resistant to coolants and lubricants. “The robust sensors are not affected by impacts, knocks, corrosion or other mechanical influences,” Lang continues. The small 2K design is available for six functional principles and a total of three light sources are available: red light, blue light and laser light.

High photoelectronic performance is delivered.

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By being able to print product codes directly onto bottles and vials, instead of carton packaging, manufacturers will save time and money through having fewer labelling processes, and fewer systems that require maintenance, says the company.

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For more information, contact Mettler-Toledo PCE at 0116 235 7070 or visit www.mt.com/pi.
Colouring the status

Partners in Packaging has taken lighting to a whole new machine level

As part of its new RT series sachet tip-on application system, Partners in Packaging (Machine Systems) has incorporated a simple but very useful new lighting feature in the new line.

“We have taken the idea of internal LED lights which we have fitted to our machines for a long time and made them change colour automatically according to the status of the machine,” explains Duncan Macintyre, director at the company.

“This means that the whole system will change colour if the status of the line changes, highlighting the fact that either the machine continues to run well, or that operator intervention is then required.”

The RT Series walleting line takes sachets and flow-wrapped packs, and glues them using a peelable adhesive to a backing card, which is then folded into a wallet. A tamper evident label is then applied, and the packs are shingle stacked at up to 150 a minute.

Full height doors allow complete access while giving total visibility to the machine in operation.

☎ 01706 369000
🌐 www.partnersinpackaging.com
First print and apply labeller install is helping craft brewer to automate

Clearmark Solutions has partnered with the Vocation Brewery to install its first ICE Vulcan print and apply labelling system which is meeting GS1 criteria while delivering cost and waste savings. This installation at its Halifax factory is also increasing turnover through quicker print runs to label boxes of beer for shipment to the top five UK supermarket groups.

With sales of craft beers soaring last year, Vocation Brewery had to look at new, faster ways of applying labels to its boxes while being compliant with GS1 regulations. Previously, labels were printed using a desktop printer and applied by hand, which was a slow and not always accurate process. Now, with the investment in the ICE Vulcan print and apply labeller, the cost to label each box of craft beer has dropped by 90% (just half a penny per label). Print speeds can reach over 120 ppm with a label capacity of 17,000 labels which, says Clearmark, is more than twice the capacity of other labelling systems.

The print and apply labelling system has a non-pneumatic ‘air-less’ design using a special direct apply method which allows for accurate label placement without the need for an applicator. The system boasts Intelligent Motion technology which enables precise automatic control of components and an 80% reduction of wear parts that traditionally cause unexpected downtime and cost.

“Growth in supermarket chains and orders for seasonal and one-off product lines has seen production increase to 60,000 hectolitres this year, up from 10,000 when we first started, that’s approximately 12-14 million cans this year,” explains Dan Sutcliffe-Tasker, head of packaging at Vocation Brewery.

“Since automating our labelling process we’ve had zero defects – the ICE Vulcan print and apply system is 100% fool-proof and in hindsight we should have automated sooner,” he says.

The ICE Vulcan has in built tutorials to help operators perform functions such as changing the print head, thermal transfer ribbon and label reel with built in print save options which means no ribbon is wasted in between jobs.

The project took just ten weeks to complete from initiation to installation. Thanks to surveys and CAD drawings, the small footprint ICE Vulcan slotted into the existing factory layout with little disruption to production. The labeller has allowed the brewer to meet the demands posed by the increase of orders both online and via supermarket distribution.

A QR code is now facilitating fast, remote and secure fault diagnosis on an applicator

A new procedure for the Herma 500 labeller uses a QR code to facilitate fast remote fault diagnosis and clearance without requiring direct access to the applicator. With this new solution, the encrypted secure transfer of about 300 applicator parameters takes place automatically, without any human intervention. And, following successful trials, this procedure is now a standard feature of the machine and can also be used to log the device’s current settings. Should a fault occur, the user presses a button to generate a QR code which appears on the label applicator’s touchscreen. Scanning the code with a smartphone or tablet opens a webpage to the Herma Service Portal and the encoded parameter data is automatically sent to the system.

Next-generation of eco self-adhesives

Antalis has launched the new and improved version of the Graphic self-adhesive range from UPM Raflatac, the world’s first label material to be verified by The Carbon Trust. The lower grammage backing paper of RAFLNX+ (3 gsm lighter) is FSC certified, allowing Antalis to classify the whole range as FSC Mixed Credit. The face paper in the new range remains the same as previous products, so the printing performance is unaffected.

Antalis Packaging Solutions
01440 763366
www.machineryupdate.co.uk

Clearmark Solutions

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A QR code is now facilitating fast, remote and secure fault diagnosis on an applicator

The Herma 500 uses a QR code for fault finding

The new ICE Vulcan print and apply labelling system is meeting GS1 criteria

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Clearmark Solutions has partnered with the Vocation Brewery to install its first ICE Vulcan print and apply labelling system which is meeting GS1 criteria while delivering cost and waste savings. This installation at its Halifax factory is also increasing turnover through quicker print runs to label boxes of beer for shipment to the top five UK supermarket groups.

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Latest laser coder is capable of marking bags made from PVA

Macsa ID UK’s newly launched iCON 3 small character laser coder is being used to mark food bags produced from 100% PVA (polyvinyl alcohol). Using CO2 technology, the machine achieves a high contrast white marking that is clearly visible and legible on the water soluble packs.

The new system is more reliable than its predecessor with enhancements designed to further reduce carbon footprint while improving coding quality. Because of its size and compact design, the iCON 3 can be adapted for any production environment.

Non-toxic and compostable, PVA bags break down in water and have very little impact on the environment. However, the growing popularity of these new materials creates the challenge of developing and searching for the best technology to mark and code them in a legible, permanent and sustainable way.

Clean, fast and consumable-free, Macsa’s iCON 3 delivers a permanent mark that does not smudge. In addition, it works with most substrates including labels, cardboard boxes, plastics, glass, wood and textiles. The unit is also capable of producing unique and highly defined marks such as QR codes.

Macsa ID says that PVA bags are widely used for a range of foods.

Whatever you produce, Our machines will label it

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The first industrial 5G router is now available to aid remote access

The Scalance MUM856-1 – the first industrial 5G router from Siemens – is available now. The device connects local industrial applications to public 5G, 4G (LTE), and 3G (UMTS) mobile wireless networks.

The router can be used to remotely monitor and service plants, machines, control elements, and other industrial devices via a public 5G network – flexibly and with high data rates. Demand for this type of solution is growing in industry. In addition, the device can be integrated into private 5G networks.

The Scalance MUM856-1 therefore supports future-oriented applications such as mobile robots in manufacturing, autonomous vehicles in logistics or augmented reality applications for service technicians. Thanks to a robust IP65 housing, the router can also be used outside the control cabinet, for example under harsh conditions in production.

To ensure the powerful connection of Ethernet-based subnetworks and automation devices, the Scalance MUM856-1 supports Release 15 of the 5G standard. The device offers high bandwidths of up to 1000 Mbps for the downlink and up to 500 Mbps for the uplink – providing high data rates for data-intensive applications such as the remote implementation of firmware updates.

Thanks to IPv6 support, the devices can also be implemented in modern communication networks. Various security functions are included in order to monitor data traffic and protect against unauthorised access: for example, an integrated firewall as well as authentication of communication devices and encryption of data transmission via VPN.

If there is no available 5G network, the device switches automatically to 4G or 3G networks.

Both models can be directly mounted to a machine frame. 01536 313580 www.keyence.co.uk

The new series will kick off with a coaxial planetary gearbox in four different sizes, with five gear ratios and three output shapes on offer. 01782 286427 www.wenglor.com

Wittenstein says its new XP+ high torque planetary gearbox in the alpha’s Premium Line offers the highest torque density and torsional rigidity of any planetary gearbox currently available in the market.

Several enhancements underline this claim: up to 144% more torque density than the market’s second best planetary gearbox of this kind, double the torsional rigidity, two-and-a-half times better tilting moment capacity and 15% less overall length without any increase in size or 30% less overall length and 50% less weight with comparable performance.

TOP PERFORMANCE

The XP+ high torque stands for systematically increased performance and space-saving downsizing. Furthermore, thanks to cynapse – an integrated sensor module with a data logger and an IO-Link communication interface – this gearbox enables future-proof connections to digitalised drive axes and machines.

New overlays also provide even more user comfort and high-resolution digital cameras with 12 MP offer an even greater choice in the configuration of vision systems.

All of the 80 models in the weCat3D series can now also be used as a smart version, with no external analysis module required. Both the profile recording and evaluation then take place directly in the sensor housing, while the smart 2D/3D profile sensors are particularly useful where space is at a premium. 01908 696900 www.machineryupdate.co.uk

wenglor says its latest release of the modular uniVision image processing software has it all: while in the past an external analysis module always had to be used to evaluate 2D/3D profile recordings, the smart 2D/3D profile sensors now combine sensor and analysis modules directly in the compact housing thanks to uniVision 2.4.

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wenglor’s latest software is a ‘smarter’ option

www.siemens.co.uk

www.machineryupdate.co.uk

www.wenglor.com

www.siemens.co.uk
How to solve an age-old dilemma

Festo claims that machine builders can resolve the age-old dilemma of whether to deploy electric or pneumatic technology for linear motion tasks by adopting a more application-led approach and deploying hybrid solutions.

“Many machine builders think they need to make a decision between electric automation and pneumatic drives,” says Warren Harvard, product marketing manager at Festo. Some claim that electric actuation is cheaper, more energy efficient and easier to work with while others feel pneumatic technology is far more rugged, simpler and has a higher power density.

“But this ‘one or the other’ approach isn’t always helpful in meeting the needs of the application,” he says.

“It’s clearly better to have an efficient overall system rather than to just focus on the efficiency of individual components.”

This principle is driving new advances in linear motion, with product manufacturers seeking to combine the advantages of both pneumatic and electric drives in a single solution. For example, Festo says its Simplified Motion Series (SMS) offers an affordable option that is easy to install and operate.

The SMS range offers an affordable option, says Festo.

The new ZZ1060 IO-Link master kit from ifm electronic makes it easy to connect IO-Link sensors to a PC for parameterisation and data retrieval. This functionality is particularly useful when setting up a new plant, as all of the sensors can be configured prior to installation, which greatly reduces the time needed for commissioning.

It is also invaluable when replacing faulty or damaged sensors, as once again they can be preconfigured, which reduces the risk of errors and minimises downtime.

The new ZZ1060 IO-Link master kit comprises an AL1060 IO-Link master with one USB port, a connecting cable to link the master to a standard USB port on the PC, and a cable to link the sensor to the master. Also included on a USB stick is the latest LR DEVICE software.

Visit: www.acorn-ind.co.uk
email: enquiries@acorn-ind.co.uk
or call: 0800 8766 441
**Who What Where**

**RMGroup**
- **Mark Tucker** is the new managing director at the RMGroup, bringing over 40 years’ experience in the automation sector to the position, having held a number of previous technical, managerial and senior sales roles. He will be working with the existing board while the previous managing director **Edward Rees** now becomes chairman. “RMGroup is a great business with a can-do attitude,” says Tucker. “I look forward to leading the management team along a maturing path to even greater success.”

**Friedheim**
- **Darren Crane** has joined Friedheim as its new sales director to facilitate growth at the company as the business approaches its 140th anniversary year. Crane brings a wealth of experience in sales leadership and also a track record of success in the graphic arts and the communications sectors to his new Hemel Hempstead based position.

**Uhlmann**
- **Cristian Reiter**, previously vice president packaging systems at Uhlmann Pac-Systeme, takes over as chief technology officer from **Tim Slomp** who is leaving his role as managing director at the company. Reiter has been with the business since 2019 and has shown his expertise for important strategic projects.

**Fanuc**
- Fanuc has hired two new sales managers as its first on-the-ground employees in Ireland and will take over the care of Irish customers who have traditionally been supported by the company’s UK operation.
  - **Conor O’Kelly** brings 15 years of experience in industrial automation to his new sales manager role and will be serving a host of multi-national manufacturers based in Ireland with systems integration firm Crest Solutions/CXV Global.
  - **Ronan Rasdale** joins as sales manager from specialist robotics distributors Reliance Automation, having previously worked for a provider of enterprise automation and 3D vision systems. Both will be responsible for promoting Fanuc’s range of industrial and collaborative robots.

**Proseal**
- A new wing at East Cheshire Hospice, entirely funded by the generosity of Proseal, has officially opened. ‘The Proseal Wing’ is the extension at the charity’s site on Millbank Drive, Macclesfield, and will act as a Co-ordinated Care Hub for its ‘Hospice@Home’ service. Proseal is a long-standing supporter of fundraising group ‘What Women Want’ and the company’s £1 million donation to the Hospice came via this link.

**Proseal**
- **Jamie Rossiter**, who started his career in service and field engineer roles before moving into sales, has joined Macsa ID UK as technical sales manager for the south of the UK.
- **Tom Steele** joins the business as technical sales manager in the north of the UK and is an apprentice trained mechanical engineer with a background in process plant.

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## Machinery Finder

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### Data Matrix Readers

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### Machine Knives & Punches

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### Pipework/Ducting

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W: www.adelphi.co.uk

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W: www.adelphi.co.uk

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T: 01604 591210
E: euyiuk@grotecompany.com
W: www.grotecompany.com

Packline (Machinery Handling)
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W: www.karmelle.com

SP Filling Systems Ltd
Unit 28, Dible Industrial Estate, Landrock Wells, Pensy, E16 4DF
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Intermittent Motion Verus

- Designed for harsh & wet or dry environments
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