



FOOD & DRINK PROCESSING & PACKAGING



Hugo Beck to unveil
flexible machine
technology for film and
paper packaging

Fi Europe 2019:
GEA to showcase its
technology strengths in
food processing and safety

Issue 26 2019

PLUS...

Packaging considerations: Catering to the rising
hot food-to-go
movement



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Contents



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Features

GEA	< 06
ILAPAK	< 08
BRILLOPAK	< 13
ISHIDA	< 16
COLPAC	< 18
NIDEC	< 22
PROSEAL	< 25
HUGO BECK	< 26
BRILLOPAK	< 28
3DPRINTUK	< 30
BNL	< 32
FORFARMERS	< 34



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Fi Europe 2019: GEA to showcase its technology strengths in food processing and safety

At the leading trade show for food ingredients, Fi Europe, taking place in Paris, France, December 3-5, GEA will showcase its solutions for the manufacture of food and dairy ingredients, freeze-dried foods and instant coffee at booth 6F141 in hall H6.

GEA experts will be on hand to cover key topics such as hygienic design, product quality, plant efficiency and safety, and how best to achieve the highest quality product results. From standalone equipment to integrated solutions, GEA focuses on solutions that maximize plant flexibility and overall efficiency, while ensuring repeatable processing and high product quality.

"Fi Europe is a key event for GEA. We have extensive experience in the food ingredients sector with a significant number of plants installed for processing and drying of ingredients products. It's a valuable opportunity for us to come together with our customers and discuss their needs and requirements directly. These discussions shape our offering, so every opportunity to engage with them is of paramount importance," says Christian Rolf Jacobsen, Vice President, GEA.

This year, equipment featured at the booth will include a newly developed GEA liquid nitrogen freezer pilot plant and GEA's trusted MOBILE MINOR® R&D spray dryer:

GEA LIQUID NITROGEN FREEZER

At the booth, visitors will be able to explore GEA's newly developed liquid nitrogen freezer pilot plant. Designed for extremely fast freezing, the system optimizes the production process and throughput and ensures the ideal conditions for downstream lyophilization of fermentation-derived ingredients. With the nitrogen



freezer pilot plant, customers are able to rent a unit for small-scale testing at their own location before investing in a full-scale industrial plant. Bacterial cultures decay rapidly after fermentation, therefore having the ability to freeze rapidly and conduct tests onsite next to the fermentation line is very advantageous. With the LNF-6 Pilot Plant, we can deliver demonstrable benefits to our customers at a low cost.

GEA SPRAY DRYER

Also featured will be GEA's trusted MOBILE MINOR® R&D spray dryer, designed to produce small-volume powder samples that can be scaled up to production volumes with the highest levels of accuracy. This flexible and easy-to-handle spray dryer has become a benchmark system in the R&D departments of many leading manufacturers, independent research institutes and universities worldwide. Its

inclusion on the stand will allow visitors to fully understand the processes involved and how working closely with GEA can help to achieve strategic objectives with greater speed and efficiency. A clear advantage of the spray dryer is its full scalability to industrial conditions, for which GEA has a strong portfolio of solutions.

A live presentation will also take place at the event, given by Henrik Stillhoff Nielsen, Drying Specialist at GEA. He will provide insights into different process technologies for drying diverse fruits, including apples, berries and tomatoes. The freeze drying of fruit and the spray drying of fruit purées and juices, as well as the encapsulation of natural fruit flavors, will also be covered. The seminar will take place in the Expo FoodTec Hub in hall 7 on Wednesday, December 4, 2019, from 11:15-11:45. Attendees are encouraged to visit GEA at booth 6F141 in Hall H6, either before or after the presentation, where the MOBILE MINOR® R&D spray dryer can be viewed in person and any questions, directed to a GEA expert.

gea.com

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GEA has a wealth of experience in the food ingredients sector. With a significant number of successfully completed projects, you can rest assured that GEA's years of expertise and engineering know-how enable us to configure the best, most reliable systems for your food ingredient products.

From standalone equipment to integrated solutions, our ultimate goal is always to maximize plant

flexibility and efficiency while ensuring repeatable processing. By listening to our customers and responding to their needs, we supply the equipment that enables them to meet the highest quality standards.

We look forward to meeting you at Fi Europe in Hall H6, booth 6F141, in Paris, France (3–5 December 2019).



gea.com



Tiffin produces over 20 million items – from filled paninis, ciabattas and batons to conventional triangular sandwiches – annually.

Delta 3000 transforms the sandwich run at Tiffin

Tiffin Sandwiches' search for an ultra-hygienic flow wrapper has ended at ILAPAK's Delta 3000 flow wrapper. So impressed is the independently-owned sandwich producer with the Delta 3000's performance that it has named this model its flow wrapper of choice and invested in three of these machines since 2016. The systems, which are collectively producing approximately 150,000 sandwich packs per week, have enhanced packing efficiency by 60-70% at the company's Bradford factory.

Tiffin Sandwiches is one of the UK food industry's biggest home-grown success stories. What started 20 years ago as three people making sandwiches has evolved into a multi-million pound business and the UK's largest

independently-owned sandwich making operation. Today, Tiffin produces over 20 million items – from filled paninis, ciabattas and batons to conventional triangular sandwiches – annually, supplying schools, hospitals and other outlets via a nationwide distribution network.

The company's relationship with ILAPAK, a leading designer and manufacturer of packaging machines, stretches back a number of years to when Tiffin first invested in ILAPAK's entry-level Smart flow wrappers to automate its packaging operation. So in 2016, when Tiffin was looking to purchase a more advanced flow wrapper that would deliver both hygiene assurance and efficiency gains, it turned to ILAPAK.

ILAPAK had just launched its new Delta series of modular flow wrappers, and the mid-range Delta 3000, with its high speed hermetic sealing capabilities and hygienic build, looked to be ideal for Tiffin's requirements.

"I was really pleased with what I saw; efficiency, mechanically, electrically and hygiene-wise it was perfect," recalls Michael Tomes, Engineering and Facilities Manager

Hygienic design is a major consideration for Tiffin, as the sandwiches are made in a high care area and the machines need to be cleaned thoroughly and regularly when switching between fillings for food safety and allergen labelling reasons.

Tiffin could immediately see that the Delta 3000 had been engineered precisely for this type of production environment. "The fact that the Delta 3000 was constructed fully from stainless steel, with the exception of the rotating jaws and various gears, drives and chains, meant it was ideal for us," says Michael.

He adds: "We perform twice-daily washdowns of the entire production operation as well as various other cleaning routines when changing between products, so stainless steel assembly and easy-cleaning are paramount. The removable infeed plates on the Delta 3000 mean the machine can be cleaned in-situ without having to be dismantled, thereby reducing the risk of damage and contributing to overall efficiency."

The roller configuration on the Delta 3000 was another tick in the box, as Tiffin could see that the additional roller would result in more reliable sealing.

"The Delta 3000 uses three rollers for making the fin seal, rather than two as is the case with most entry level flow wrappers. This makes for extremely consistent sealing performance," explains Chris Gee, sales manager at ILAPAK UK.



The Delta 3000 uses three rollers for making the fin seal, rather than two as is the case with most entry level flow wrappers which makes for extremely consistent sealing performance.

Sure enough, Tiffin reports that the Delta 3000 has significantly improved sealing quality, which in turn has reduced film waste. The company also says that the Delta 3000 is 60-70% more efficient than the older machines it has on site, owing to a combination of speed and reliability.

Impressed by these efficiency gains, Tiffin has since purchased two further Delta 3000 machines. Between them, the three flow wrappers are handling in the region of 150,000 sandwiches every week. They are operating at

maximum speeds of 60 ppm, and although, in theory, they could go much faster, line speed is limited by the manual elements of the production process – rolls are hand-filled and hand-loaded into the inflight of the flow wrapper – and this is something Tiffin has no desire to change.

"In our business, we don't need to be producing 90 sandwiches a minute. An increase in speed might compromise the generosity of the fillings and the quality of our sandwiches," says Michael.



So impressed is Tiffin Sandwiches with the Delta 3000's performance that it has named this model its flow wrapper of choice and invested in three of these machines since 2016.

This 'quality first' philosophy is clearly held in high regard by the marketplace. Tiffin has just secured a deal to supply Jet2 with 60,000 sandwiches every week for its inflight menu, and, on the back of this order, is planning to purchase a fourth Delta 3000.

"To anyone who is considering working with ILAPAK, I would recommend them on the basis of the reliability of their machines alone, but added to that, their customer service is exceptional – I have always found that help is never far away. We have been approached by other packaging machinery companies but because we have complete confidence in ILAPAK, we would not consider any other supplier."

www.ilapak.co.uk

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New Style Uniball Tumbler Mixer From Machines 4 Food

The machines have been sold to client using a range of different products as coating vegetables in oil, mixing medical powders, Bakery recipes, flapjack mix, mixing different nut types, marinating meat with sauces, mixing coffee beans, food ingredients, coating olives in flavours, flavours on nuts.



Machine details

New Machines 4 Food Tumbler Mixer
Model Uniball 225 Mixer Tumbler
All stainless steel construction
Capacity 225 litres, load capacity 60 kg to 100 Kg,
Drum made in 316 stainless steel
760 mm inside diameter x 700 mm deep
With inner blades to assist product roll
Variable speed from 12 rpm to 24 rpm
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Crate DeStakers support Morrisons' worker wellbeing and efficiency

To help two Morrisons packing plants overcome production bottlenecks, Brillopak has installed four Crate DeStakers at the start of four robotic pick and place case packing cells. However, the real benefit is the difference the machines have made to workforce health and safety and job satisfaction, reports Rushden's site manager Andy Day.

Upstream, Brillopak Crate DeStakers have put a stop to operatives repeatedly overstretching to lift, separate and place clean retail baskets in a constant stream onto conveyors for filling.

Both Rushden and Gadbrook fresh produce depots supplying Morrisons' customers nationwide recently invested in four state-of-the-art UniPacker Robotic Pick and Place Cells for packing vertical form fill and seal potato bags into standard sized 600mmx400mm crates. Having automated their packing lines, both sites needed assurance that the supply of crates to the robotic cells would be fast enough to not cause a backlog or result in labour being relocated to such a strenuous and repetitive task.

According to the Health & Safety Executive, the moving of awkward heavy loads is one of the key causes of manual handling musculoskeletal injuries and work-related upper limb disorders (WRULDs). Chronic back pain resulting from repetitive or awkward lifting accounts for around 35% of cases of occupational ill health in food and drink manufacturing. The Brillopak crate separation and palletising systems are designed to address these issues by removing one of the most labour intensive tasks in case packing.



Addressing processing pain points
Prior to the automated lines going in, operatives at Morrisons loaded crates manually onto the conveyor. Once filled, another colleague would hoist and stack the heavy filled trays onto pallets. With more than 720 pallets passing through each facility daily, unloading the two-metre high stacks, separating, filling and then palletising the crates was physically demanding work.

Now, all movement of the empty and filled crates is done using robotics. By automating every part of the process from crate separation to palletising has resulted in 90% of the physical labour being taken off the line at Rushden.

Empty crates are automatically fed onto each packing line via a low belt conveyor, presenting stacks in a line to the Crate DeStaker. The Crate Destaker lifts up a whole stack while simultaneously pulling down the bottom crates. This motion ejects two crates at a time in a consistent line out onto the main conveyor track to the robotic potato case loading station.

Each Brillopak Crate DeStaker unit can separate up to 480 crates every half an hour. Operatives then manoeuvre another pallet of washed and empty



crate stacks into position on the infeed conveyor, so the process can continue.

Designed to feed multiple lines, another Morrisons site - Thrapston - has Brillopak Crate DeStakers in place supplying empty crates to 17 packing lines.

"The benefit to health and safety and workforce wellbeing is evident," reports Rushden machine operative Dave. "The machine just does it for you. As people are rotated around different packing and warehouse tasks, the team seems a lot more cohesive."

Site manager Andy agrees. "It's a much calmer processing environment. Because the process is so streamlined, it feels less chaotic. Empty and filled crates are stacked in an orderly way, with clearly defined work and storage areas. Staff rotate around different jobs. This has increased team morale. Plus, they are not being constantly exposed to repetitive tasks, which is much better for occupational health."

Brillopak Crate DeStakers and palletising stackers are modular by design, making it easier for packhouses to integrate with existing automated lines.

www.brillopak.co.uk

InfinityQS helps manufacturers unlock hidden value from their Automation and Control Investments

Article by Jason Chester, Director of Global Channel Programs, InfinityQS

Within the food and beverage manufacturing sector, Automation and Control (A&C) technologies have been the focus of major investments for several decades. These investments have transformed the landscape of manufacturing into highly efficient and automated environments which control almost every aspect of the production and packaging process.

Quality of the end goods, and the processes involved in the manufacture of these goods, are of paramount importance. Not just to satisfy regulatory food safety requirements and packaging legislation, such as net content control, but also to satisfy consumer demands and expectations, and protect the brands' reputation. Achieving this, while at the same time ensuring operational efficiency and productivity levels remain high and waste remains low, is a continual challenge for the sector.

Given the extent to which PLCs, SCADA systems, HMI controls and in-line digital



sensors are now used across F&B operations, what 'could' manufacturers do with the vast amounts of production-data they amass from that infrastructure? In truth, the answer is simply - a lot! There is significant hidden value in that data, and manufacturers are beginning to see the opportunity of unlocking that value.

That's where the InfinityQS Enact® solution comes in. Enact is a Quality Intelligence platform powered by real-time Statistical Process Control (SPC). Whatever the industry, Enact is helping manufacturers around the world

to leverage greater value from their data assets, by transforming how that quality and production data is viewed, improving workflows and enabling better, faster operational decisions.

As this trend becomes mainstream, providers of A&C services to manufacturers increasingly recognise the necessity of having a quality intelligence solution capability within their portfolio. Not only to service the need from their manufacturing clients, but also to leverage the significant commercial opportunity and competitive differentiation that it represents.

Through the InfinityQS Global Channel Partner Program, A&C service providers can become an authorised sales and service partner of the Enact Quality Intelligence solution. By combining their A&C expertise with our Enact solution, together we can deliver greater success for the client.

If you would like to discuss the opportunity of becoming an Enact® partner, contact us for a chat at partners@infinityqs.com.



What happens when Automation and Control meets next-generation Quality Intelligence?

The InfinityQS Partner Program

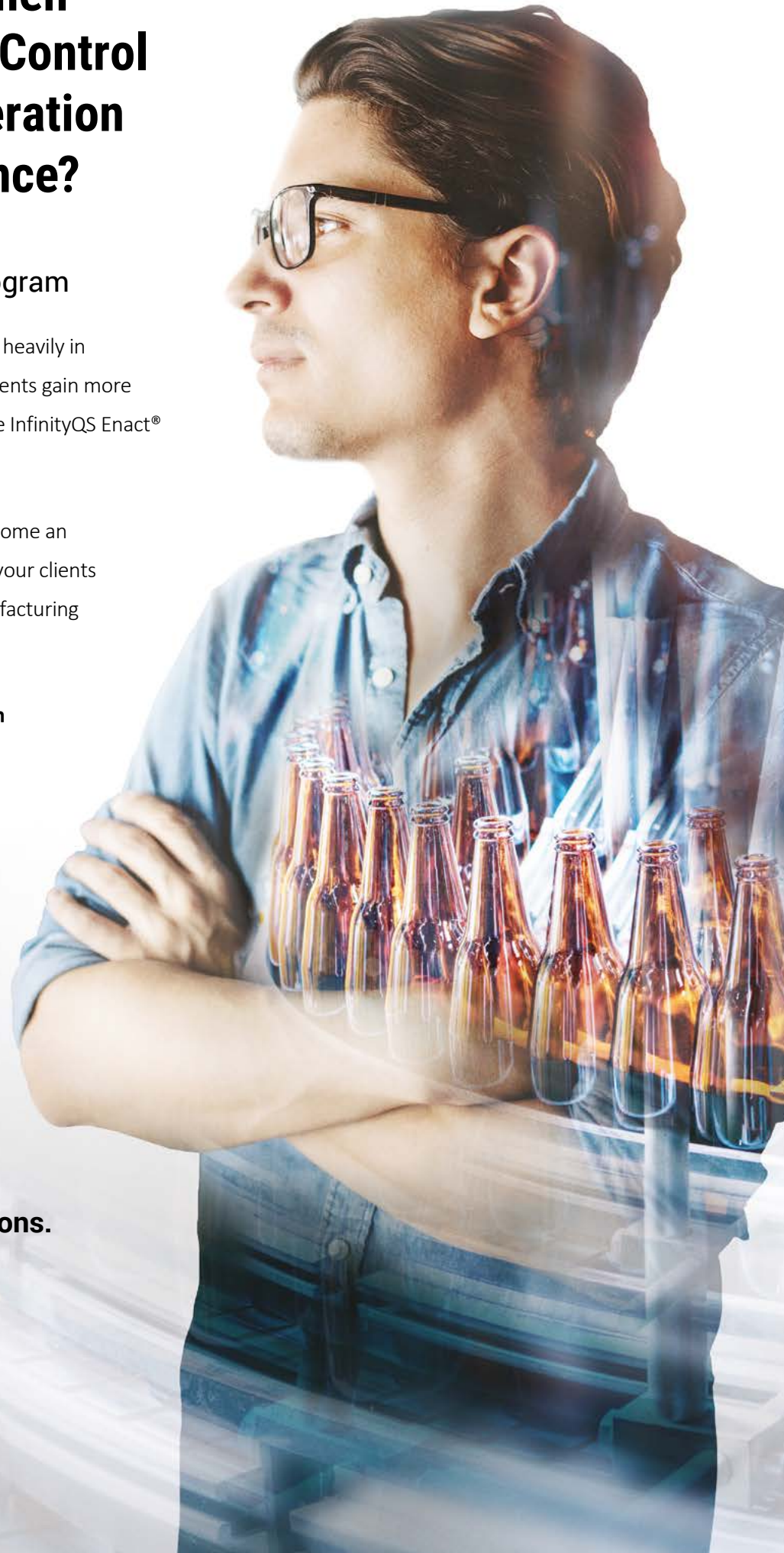
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Find out more about how you can become an InfinityQS Enact® Partner and enable your clients to unlock the true value of their manufacturing data assets today!

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**Your Expertise. Our Solutions.
Your Clients' Success.**





Premium cakes benefit from Ishida weighing and inspection technology

Leading German manufacturer of cakes for the foodservice industry Pfalzgraf Konditorei is using advanced Ishida technology for both precision dosing of fruit toppings onto its cakes and tortes, and to meet its stringent quality standards.

In one of the most state-of-the-art factories in Europe, Pfalzgraf Konditorei has installed an Ishida 6-head linear multihead weigher, which has reduced overfilling to practically zero; a DACS-G checkweigher for regional weight compliance; and an IX-GA-4075 x-ray inspection system that is capable of detecting foreign bodies with a diameters of less than 1mm.

The 6-head Fresh Food Weigher (FFW) was specifically developed by Ishida

for sticky fresh products and smaller production batches. Product is delivered via a conveyor belt to the top of the weigher. An operator evenly distributes the fruit via six belt feeders to the weigh hoppers, and can visually inspect the fruit at the same time to ensure an even distribution. This increases both the speed and efficiency of the weighing process, while special scrapers on the plastic hoppers reduce product sticking to the contact parts.

Once they have been weighed, the fruit portions are filled directly onto the tortes and cakes through a small filling system which was specially adapted to suit the product requirements and the shapes and sizes of the different cakes (round or square)

Pfalzgraf Konditorei handles a wide range of products on the FFW in a two-shift operation. The baked goods are topped with raspberries, strawberries, forest fruits, mandarins and a variety of fruit mixtures. The fill weights range from 240 g to 2500 g with a maximum speed of 16 cycles per minute. In view of the high price of fruit, however, precision is a decisive factor. According to production manager Stephan Koller, the weigher has increased productivity significantly. "The old volumetric dosing method placed 20 to 30 g too much fruit on each product," he explains. "Now, overfilling is practically zero."

For the baked goods manufacturer, the Ishida machine has proved to be a highly cost-effective solution that paid off in just a short time.

Another advantage, says Koller, is that the system is very gentle in its handling of the products, which helps largely to prevent any damage to the soft fruits.

The handling of wet fruit means that extensive cleaning work is frequently necessary – something else for which the FFW is well suited. Stephan Koller says that the waterproof tool is “very hygiene-friendly”. The weigher’s contact parts can be completely dismantled without the need for tools and can be cleaned in an industrial cleaner, while the main body can be hosed down.

At the end of the production line, the Ishida DACS-G checkweigher checks the packed cakes to ensure that they comply with regional weigh directives. Stephan Koller says that the authorities are extremely happy with the results of the weight checks. The checkweigher ensures not only high precision at maximum speeds, but is also very flexible. The operator can switch between two weight ranges at the touch of a button, which means that the DACS-G can be used for a wider range of products. In case of external disturbances (such as during clean down), a unique Ishida-patented Force Dislocating Limiter (DFL) automatically disconnects the weighing sensor from the weigh belt to protect the sensitive loadcell from excessive load damage.



Pfalzgraf Konditorei is committed to meeting the highest standards of quality, and guarantees to its clients that its products are free from foreign bodies. A metal detector was not an option for Pfalzgraf, says Stephan Koller. “We don’t want to check just for metal contaminants, but for a whole range of other items, too.” This is why the Ishida IX-GA 4075 x-ray inspection system has been installed as the final station on the line. Even at high speeds, the system reliably detects foreign bodies with a diameter of less than 1 mm. For example, the tortes and cakes may contain tiny pieces of granite that have entered the product with the fruit. The IX-GA 4075 also identifies pieces of metal, glass and higher density plastic.



The patented technology behind Ishida’s x-ray inspection systems is based on software incorporating an intelligent genetic algorithm. By analysing image data over a number of generations, the machine achieves an extremely high level of inspection accuracy. Since similar contaminants are usually found again and again in the cakes and tortes, the system can be optimised to look for these objects.

“This allowed us to modify the system to suit the specific properties of our products,” says Stephan Koller. “Each generation contributes to creating an increasingly accurate comparison log.” The system can be calibrated quickly and easily by passing an x-ray beam through a test object two to three times. A data log verifies that the production processes were performed in the correct manner and also supplies information for process optimisation.

It did not take long for the employees of Pfalzgraf Konditorei to familiarise themselves with this largely maintenance-free Ishida x-ray inspection system. Following an automatic setup procedure, the easy-to-operate machine is ready for action in just 90 seconds. Fine-tuning can be carried out during production. Up to 100 programmable pre-sets allow rapid product changeovers.

www.ishidaeurope.com



Packaging considerations: Catering to the rising hot food-to-go movement

*By Andrew Grimbaldeston,
Commercial Director for Colpac*

According to research, the UK's food-to-go sector is set to grow at twice the rate of overall grocery retail to £22.8bn by 2023, up from £17.8bn in 2018.*

The booming sector is fuelling today's busy lives and it isn't just limited to lunchtime take out. Consumers want food-to-go at all hours of the day and the pressure is on retailers and foodservice operators to innovate their offerings.

Central to this growth is the rising demand for 'hot' food-to-go (HFTG) with 45% of food-to-go shoppers now demanding a larger range of hot dishes to take-away.**

No longer the sole domain of street food vendors and take-away outlets, major restaurant brands and chains



are increasing their hot food-to-go offering and duplicate hot deli counters are popping up which not only cater to the growing demand, but create a simple, cost effective way to attract new shoppers and increase basket spend.

The recent announcement from Greggs that 1 in 4 of the bakery giant's stores will now be opening for longer and selling a range of hot take-away options is testament to the rising number of consumers reaching for hot food-to-go alternatives. It also signifies the emergence of hot food-to-go being popular throughout the entire day, rather than just a lunchtime option.

PACKAGING SOLUTIONS TO SATISFY HFTG APPETITES

For some time, retailers and food service operators have been catering to the burgeoning food-to-go market, creating a multitude of innovative dishes and flavours to appeal to the customer. However, given that hot food-to-go tends to be more valuable to retailers, with an average basket value of £5.61, compared with £4.73 for chilled food to go,*** dishes have had to become increasingly sophisticated.

Similarly, the packaging has followed suit.

No longer are retailers and food service operators satisfied that the packaging can hot hold a dish at 85 degrees for four hours, they are seeking a single pack solution which can protect and preserve the quality of a dish from the chilled, frozen or ambient fill at the point of manufacture, through the supply chain, to regeneration in-store via microwave or oven, before being put into the hot hold cabinet and presented to the consumer in the best way possible. This ensures that the number of times each dish is touched before reaching the consumer is kept to an absolute minimum.

THE FOUR STAGES OF SELECTING THE RIGHT HFTG PACKAGING SOLUTION

Essentially, when considering packaging for hot food-to-go, the entire life cycle of the product needs to be factored in, which can be broken down into four stages; point of fill, point of sale, point of consumption and point of disposal.

When looking at the fill stage of the

packaging journey consideration of the factory or kitchen processes needs to be considered, along with the supply chain and regeneration options. And, depending on the desired final presentation, there are multiple packaging choices and varying board options available.

While heat is a critical element with hot food-to-go packaging, there are many more factors which need to be considered in finding a suitable packaging solution.

At the point of sale, the packaging is the message and it is important that, while not always easy with hot food-to-go, the dish is presented well. Consideration also needs to be given to the point of consumption and potential for onward transportation.

The point of disposal now plays a critical role, particularly as caterers, retailers and consumers, while seeking convenience, are also looking to mitigate the environmental impact of their packaging. Given the environmental aspects of packaging waste in recent

months, packs which carry sustainable accreditations which fit into the end of life options available, will increasingly become the norm and this is already being incorporated into most hot-hold packaging solutions.

There is an appreciation that greater infrastructure is needed throughout the UK to enable consumers to dispose of their packaging effectively, particularly if we are to meet the 65% municipal waste target by 2035. Retailers and food service operators need to offer consumers clear guidance on the disposal route required to ensure that the final stage of the packaging lifecycle is carried out.

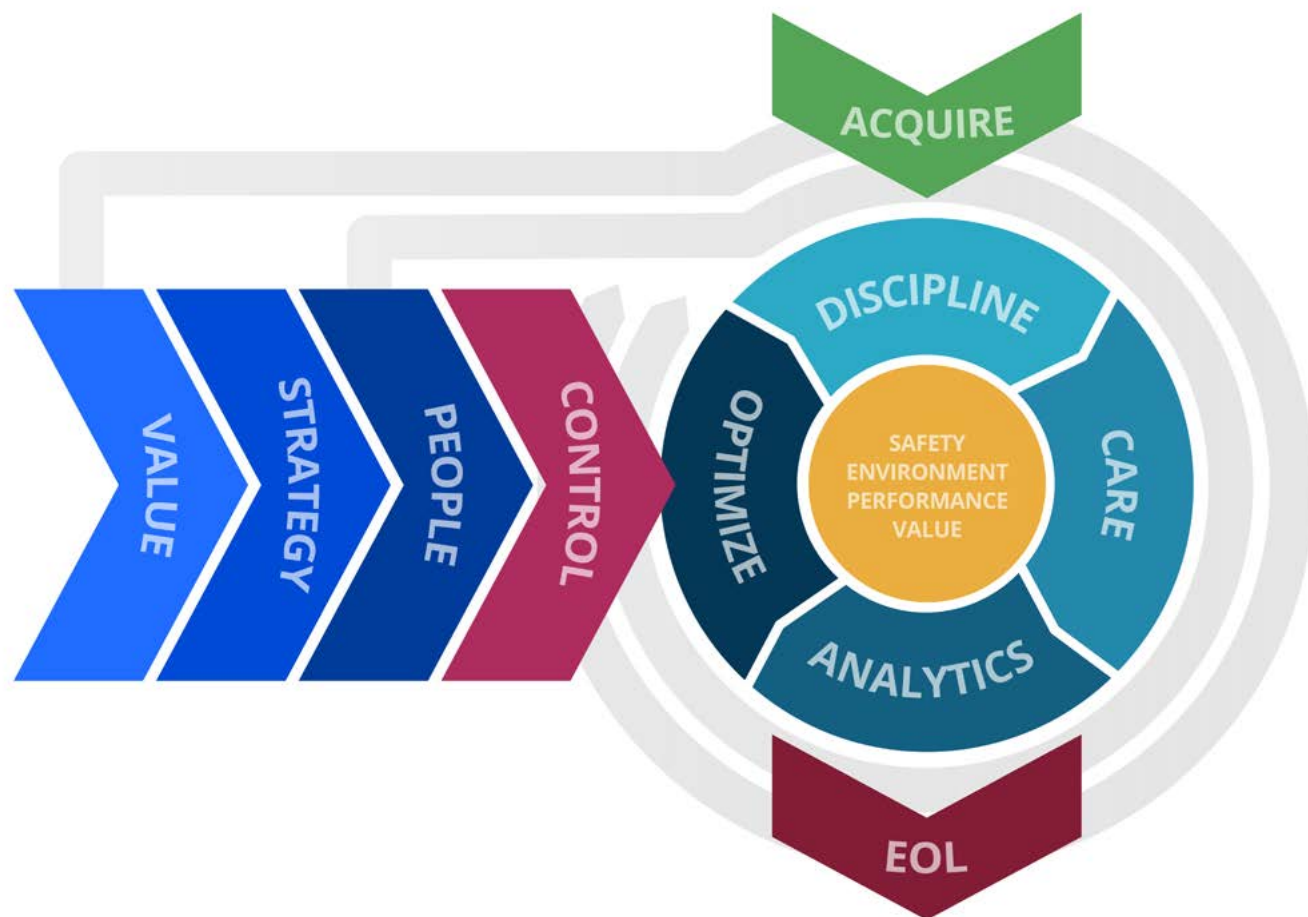
Choosing the right packaging needs expertise and support from a manufacturer who has all the suitable options to meet supply chain, point of sale and hot hold needs, along with the materials and waste expertise to support a food service operator's environmental goals.

colpac.co.uk



Asset Reliability Transformation

The Key to a Happy Life



Wasted opportunity

The reliability of your plant machinery has a significant impact on the performance of your plant. There is so much you could be doing that will add profit to your bottom line (and improve safety). It is not uncommon for plant managers, production managers, and most other people to assume that equipment breakdowns, poor performance (minor stoppages and lower production rates), the length of shutdowns, and the equipment's impact on quality are just "normal"; it is the "nature of the beast".

Well, that is not true.

SEE THE FUTURE

There are technologies that enable you to see problems coming. With the right skills, tools, leadership, and strategy, you can manage the reliability of your equipment; schedule repair and restoration work when it is most convenient.

CHANGE THE FUTURE

Changing the design, procurement, spares and work management, maintenance, and operating practices will improve the reliability of your equipment.

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You can learn more, without cost, at www.reliabilityconnect.com and www.cbconnect.com. We also offer conferences and training courses with accredited certification: www.mobiusinstitute.com. We have training centers in 60 countries in 20 languages.



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With Nidec Leroy-Somer, Ahlstrom-Munksjö consolidates its attachment to the local economy and wins export markets

Meeting market expectations... keeping at the head of the pack of innovators in its field... always serving its customers better. To keep pace with its order book and pursue its development, the Ahlstrom Specialties plant at Saint-Séverin in Charente has recently been expanded. This allows it to play its part fully in the dynamics of its employment catchment area. The plant today comprises four complete manufacturing lines, and all four are comprehensively equipped with Nidec Leroy-Somer motors. Let us consider why.

Ahlstrom-Munksjö produces fibre-based materials and special innovative and ecological papers. It is the leading industrial group in its field, with its HQ in Finland. The group employs 8000 members of staff and operates 45 production units in 14 countries. In France, its Saint-Séverin site (in the south of the Charente department) specialises in the production of parchment paper. The site is indeed the world leader in its field. Its main clients are principally to be found in the sectors of the food industry,

electronics and aeronautics, offering rapidly expanding markets for this plant, which exports the world over.

GIANT-SIZED...

To set the scene, picture a rectilinear machine, several meters wide, several meters high, and around 100 meters long. At one end of the machine you have a spool unwinder from which emerges a strip of paper two to three meters wide, and measuring just several tens of microns thick. This strip of paper then passes between hundreds of steel rollers, which convey the paper strip while ensuring that it remains at the correct tension right along the production line. As it zigzags through the machine, the paper strip covers a total distance of more than 200 meters, moving at a speed of several meters per second.

Without going into detail in this article, suffice it to say that from the sheet being unwound at the start of the

line to being wound onto a drum at the end of the line the paper travels, in the

course of manufacture, at very high speed between the steel rollers (situated transversally the length of the machine) through 4 production stations aligned over a distance of around 100 meters (coating, drying, finishing, winding). In this enormous machine, the transverse rollers serve to propel the paper strip and regulate its tension (it must not be torn) along a perfectly managed production run.

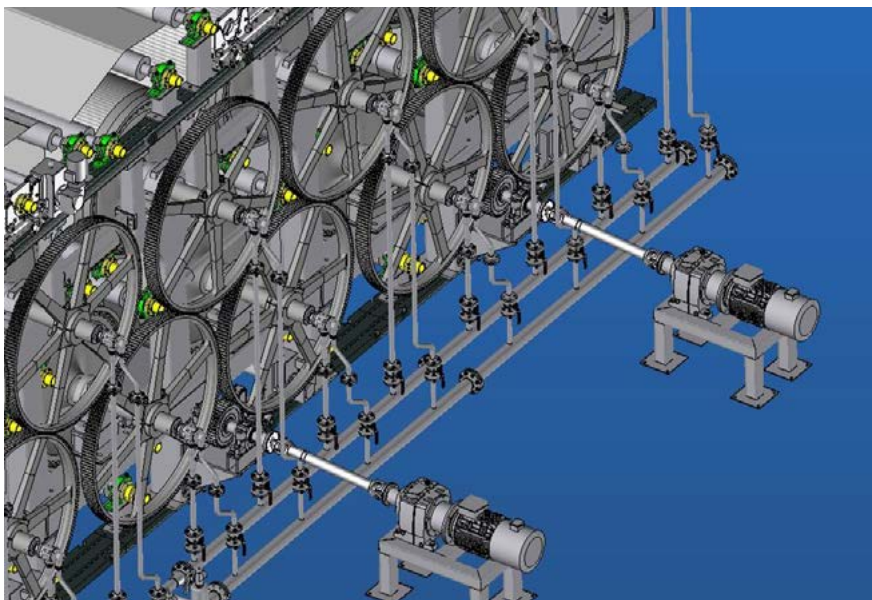
... WITH REAL FINESSE

Needless to say, the perfect synchronisation of the rotation of these rollers is one of the keys to success. The slightest unexpected speed deviation with a single one of these rollers would cause the paper strip in production to tear, with a major impact on the production costs. In short, to manufacture high-quality, hi-tech paper it takes fine-scale control, in the very heart of the machine while manufacturing progresses, of parameters such as humidity level and porosity. Just as important is to ensure the highest operational uniformity of the motors and geared motors involved in rotating the drive rollers.

MAINTAINING CONTROL OVER YOUR PRODUCTION FACILITIES

The Ahlstrom Specialties plant has chosen to design and manufacture its machines itself, and to draw on local players in this endeavour. "We take great care with the quality of our products and with controlling our costs," explains Gérard Giry, Maintenance and Engineering Manager at Ahlstrom Specialties. He adds: "We need to have complete control over our production line."





As is the case in so many extremely specialised or sensitive fields, developing your machines on site is an efficient way of maintaining control over your production facilities, so as to ensure effective management of their maintenance, or for developing innovation, not to forget the ability to ensure that your manufacturing secrets are kept under wraps.

And this is where Nidec Leroy-Somer comes in. It brings to the table, of course, the technical performance of its electromechanical drive solutions (in particular the CB3000 range of geared motors on the new, recently commissioned production line). Yet the engineers of Ahlstrom-Munksjö also selected this manufacturer for its reactivity.

Of course, the reputation of its local partner, SEFI, the French distributor specialised in the field of power transmission, weighed significantly in its favour, with its well-established reputation in the factory environment, in dealings with new works & maintenance managers, and with production managers. It should also be pointed out that the efficiency of the Nidec Leroy-Somer Assembly Centre is recognised in the profession. The service proposed – which incidentally has no equivalent on the market – allows this manufacturer of electric motors and alternators to support its clients, partners and distributors with

the service that the latter themselves provide daily to users.

“To guarantee the care and attention that we wish to offer our clients,” says Mr Giry, “we need to be able to count fully on our suppliers.” He adds: “Since becoming a part of Nidec, Leroy-Somer has been able to demonstrate even more attentiveness to the express needs of its clients.”

G rard Giry, Maintenance and Engineering Manager at Ahlstrom Specialties

“The manufacturing of high-quality, hi-tech paper requires us being able to guarantee high precision in the automation systems, on the scale of our machines, combined with great finesse.”

The paper manufacturing principles are well known. In the course of its production, a 2.5 m-wide strip of paper passes through four broad stages: coating, drying, finishing, rolling. This strip of paper goes through the various stages on its production line over a distance of around 100 meters. The paper sheet (200 meters long) enters this line at one end. An enormous roll of paper (weighing some 3 tonnes) is wound in at the other end (35 km of paper per drum). In all, it takes dozens of rotation axes that need to be controlled with the highest degree of finesse and synchronisation. The drive rollers (there are approximately 180 on the line) must all guarantee the same travel speed for the paper to prevent it tearing.

About the technical solution Compabloc 3000 geared motors with parallel gears from Nidec Leroy-Somer are used to adapt the speed of the electric motor to that of the driven machine. The full range comprises 10 different sizes. Among the technical characteristics of this family of geared motors, the following in particular stand out: a rated output torque of between 10 N.m and 14,500 N.m, a power output ranging from 0.06 to 110 kW, reduction ratios of between 1.16 and 252, and high efficiency of between 95 and 98%. It should also be noted that these geared motors are reversible. This equipment is also appreciated for its quiet running.

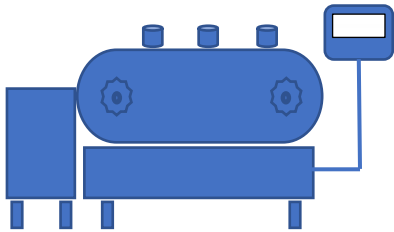
For more than a century, the manufacturer’s solutions have been present in every industry where energy needs to be produced and movement transmitted. Backed by this wealth of experience, the engineers and technicians of this French company provide innovative and reliable solutions for the most varied of applications. What is more, thanks to its design offices, it is able to work alongside its customers in the heart of their business from the earliest design stages of the applications and products. In this way, Nidec Leroy-Somer can adapt and customise its product ranges by incorporating the requirements of the customer specifications or processes (control, self-diagnostic, communication, automation, monitoring, etc.), the requirements of the working environment (humidity, corrosion, high temperature, explosive atmospheres, etc.), the machine function constraints (handling, pumping, compression, ventilation, etc.), and the industrial standards and norms (chemicals, automotive, food, paper, naval industries, etc.). Nidec Leroy-Somer has developed new technologies for machine cooling, high speeds, electromagnetic compatibility, reduced noise and vibrations, surface treatment, mechanical resistance of materials, and the coating and insulation of windings, to constitute an incomparable wealth of solutions.

www.leroy-somer.com

www.ahlstrom-munksjo.com

www.sefitransmission.fr

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Typical User Equipment



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RECORDED											
Unit	Date	Time	TS	TF	TS	TF	TS	TF	TS	TF	TS
unit1	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit2	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit3	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit4	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit5	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit6	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit7	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit8	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit9	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit10	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit11	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit12	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit13	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit14	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit15	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	
unit16	24/02	17:40:10	5.1	17.345	6.7890	kg	-00001234	PC	6.7890 kg	-00001234 PC	

LIVE			
Unit	Value	Unit	Value
unit1	12.345	unit2	6.7890
unit3	12.345	unit4	6.7890
unit5	12.345	unit6	6.7890
unit7	12.345	unit8	6.7890
unit9	12.345	unit10	6.7890
unit11	12.345	unit12	6.7890
unit13	12.345	unit14	6.7890
unit15	12.345	unit16	6.7890

Main features:

- Connects to a wide range of user equipment
- Integrated data logging system
- WiFi capability – no wiring required
- Live data display on up to 5 PC's
- Automatic unattended data uploads
- User configurable for any application
- Free PC software - supports up to 16 units
- Designed and manufactured in the UK
- Data format is Excel compatible
- AES Encrypted data for maximum security

Typical areas of use:

- Production Line monitoring
- Quality control
- Factory management functions
- Remote equipment monitoring
- Lab / Environmental Testing
- Checkweighing, filling / bagging
- Mobile Weighing applications
- Worldwide access to your live data



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Award-winning Proseal versatility on show

The wide variety of tray sealing solutions offered by global specialist, Proseal, will be demonstrated by the two models on display at the Polagra Tech Exhibition, on stand 111 in Hall 5.

The company will be showcasing its advanced GTR semi-automatic, rotary machine, ideal for compact efficiency at smaller operations, and its fully automatic, compact, high throughput GT4s, which has now been awarded an MTP Gold Medal ahead of the exhibition.

The Gold Medals are awarded by a jury of experts to products that demonstrate innovation based on superior technology. The Proseal GT4s combines a compact design with fast speeds and rapid tool changes that enable companies to react quickly to meet customer demand, handling atmospheric, gas flushing and hermetic shrink sealed trays at speeds of up to 140 atmospheric packs per minute with a seven-impression tool. The tray sealer is ideal for a variety of applications, including fresh fruit, meat, poultry and ready meals.

Among the GT4s's many advanced features, ProMotion technology improves speeds by up to 30% using following motion and intelligent buffering technology to enable trays to feed continuously into the sealer without stopping. Eseal® ensures excellent seal reliability with an increased seal force of 200% while achieving a 92% reduction in energy usage to deliver valuable cost savings and sustainability benefits. As well as its speed and efficiency, the GT4s has been designed for reliable and consistent operation in high-care hygienic food environments. Its rugged food-industry approved hygienic construction provides easy cleaning, with full washdown protection.



A rapid two-minute tool changeover reduces downtime and gives the tray sealer enormous flexibility through its ability to seal vastly different tray types while maintaining the same efficiency and accuracy. The 'Auto-tool' tool change system automatically locates and connects tooling to machine functions including all MAP options.

The GTR has been designed for companies with smaller production runs and is also the perfect choice for new product development work. Its

compact dimensions mean it can fit into the smallest of factory spaces.

Despite its semi-automatic operation, the GTR has been designed to maximise speeds. Unlike traditional manual machines where the operator has to wait for each tray to be sealed, the rotary operation of the GTR means a new tray can be loaded while the previous one is being sealed, delivering higher speeds and efficiencies to meet production line requirements.

www.proseal.com

Hugo Beck to unveil flexible machine technology for film and paper packaging

Hugo Beck, the world's leading manufacturer of horizontal flowpack, film packaging and post-print processing machines, is showcasing a new series of paper packaging solutions at this year's FachPack. Introduced at the show under the slogan, 'Film or paper? Stay flexible', Hugo Beck is meeting the growing demand for sustainable primary and secondary packaging solutions by enabling customers to choose both the packaging type and material, all from one single machine.

Hugo Beck's flexible machine technology now allows customers to select whether a product is packaged in film, paper or composite material. The packaging machines can be easily adapted to new packaging materials with a simple changeover. It is also possible to convert existing film packaging machines to use a new packaging substrate.

Both uncoated and coated paper can be used for producing bags with two glued or sewn sides plus a top overlap or, alternatively, with no overlap and three sewn sides. Additional options of banding with overlapping are also available. Visitors to the stand 307 in hall 4A will be able to see the flexibility of a modified Hugo Beck film packaging machine as it packs and labels products within uncoated paper. In addition, flowpack production with a PE-coated paper will also be demonstrated on the stand.

"Each company has its own unique requirements for packaging their goods and we therefore need to ensure our customers are able to



select the best material according to their specific product application and sustainability objectives" explains Timo Kollmann, Sales Director at Hugo Beck. "Delivering choice to our customers is key. The current debate regarding sustainability and the use of plastic film in the packaging industry shows how complex the issues are, with different materials meeting the many different environmental objectives our customers' face. From lightweight thinner films, to bioplastics and recycled content materials, there are many options for manufacturers and our latest machine technology now enables the cost-effective, flexible use of paper alongside filmic packaging to deliver even greater functionality."

With over 60 years of experience in customised and flexible film packaging solutions, Hugo Beck is well known in the packaging industry for providing the highest quality in packaging appearance, machine availability and efficiency. However, fewer people are aware that it has also been possible for some time to use certain Hugo Beck machine solutions to produce packaging from paper materials. This longstanding knowledge has helped deliver a wide range of pack options for customers wanting to use both paper alongside virtually all types of film.

In addition to the new paper-based solutions, Hugo Beck's customer specific filmic packaging solutions for primary and secondary packaging that enable production of flowpacks, poly bags and shrink packs will remain a primary focus for the company. Customers can select from the wide variety of polyolefin, polypropylene, polyethylene and composite films available within the market, and all independent of the manufacturer. The latest films made from up to 100% recycled material and all bioplastics such as PLA films can also be applied using Hugo Beck machine technology. With extremely thin packaging films available from just 7µm, the packaging volume for manufacturers and consumers can be significantly reduced. This, combined with Hugo Beck's high cycle rates and significantly reduced film consumption, mean that a machine investment can pay for itself in a short period of time – often through the annual film savings alone.

"Many of our innovations are the result of valuable feedback from the market. Thanks to our close relationship with our customers, our solutions offer real benefits and productivity advantages," continues Sales Director Timo Kollmann. "Visitors to our stand at FachPack will therefore see many of the very latest flexible packaging possibilities, however we know that this is just the start, and through our continued cooperation with our customers we will continue to develop new sustainable packaging solutions in every respect."

www.hugobeck.com



SHERWIN-WILLIAMS DEVELOPS QUICK-TO-INSTALL POUCH PACKAGING FOR INDUSTRY LEADING FASTOP™ FLOORING RANGE

Award-winning innovators, Sherwin-Williams has developed a new pouch format for its industry-leading FasTop flooring range. Available to purchase from November 11th in Europe and the Middle East, the new FasTop four-pack system provides customers with the relevant pouch colour, universal base and hardener with the appropriate aggregate filler, facilitating quicker and easier installation.

With industry-leading technical properties, the FasTop range delivers significant time-saving benefits for customers. For example, the FasTop system can be installed with a single application and takes just a matter of hours to cure.

Jeremy Waterhouse, Flooring Product Manager at Sherwin-Williams, commented: "FasTop systems are HACCP accredited and have a great track record. The innovative new pouch packaging offers major time and cost-saving advantages for projects across a range of industry sectors with quicker installation times and reduced waste."

In addition to easier application and time-saving advantages, the FasTop four-pack system ensures long-term floor protection and reduced costs through the use of innovative cementitious urethane resin technology. And with improved compact packaging, customers benefit from reduced product, packaging waste, a cleaner job site with much smaller space needed to store the new system.

The quick-curing FasTop range is accredited as food safe by The Hazard Analysis and Critical Control Point agency (HACCP) and is ideal for use in commercial kitchens, as well as heavy-duty traffic areas and chemical and pharmaceutical processing plants.



FasTop™ systems are HACCP International certified as food safe.

To learn more about the FasTop system or other high performance flooring systems visit the Sherwin-Williams website:

resinflooring.sherwin.eu or call **+44 (0)1204 556441**



Brillopak designed the mechatronic Glove end effector to top load packs into containers in a different angle to how they are picked up

Brillopak's UniPaker handles 66 million kilos of spuds a year for Morrisons

Morrisons fresh produce depot in Rushden, Northamptonshire has installed two automated Brillopak crate loading potato cells, UniPaker, taking productivity and efficiency to a whole new level. Capable of orientating packs quicker than any human being, the robot arms "never miss a beat," exclaims site manager Andy Day.

Believed to be Europe's first single pick potato packing cell, the UniPaker robotic pick and place cell was engineered by Brillopak in collaboration with the Rushden team. Designed to improve product handling, minimise waste and enhance the presentation of pre-packed potatoes for the 11 million consumers that shop weekly at Morrisons, the clever robot adopts a brand new automated technique for gently loading vertical form fill and seal (VFFS) and flow wrap bags into retail crates.

At speeds of at least 75 packs per minute for each cell, the two UniPaker systems cradle bags of potatoes, each weighing from 0.5kg up to 2.5kg, loading one at a time into crates, following multiple sets of presentation formats. The installation, which forms part of a warehouse-wide efficiency improvement investment, has resulted in a 90% reduction of labour.

Both UniPaker case loading cells house two high-payload Omron Delta robots. Working simultaneously alongside each other, the robotic spider arms deftly loads potato packs individually into crates in set patterns at the programmed orientation. The robots do this with a degree of dexterity and rotation that would not be feasible with a layer-based automated handling system.

Clean, empty crates are fed automatically into both cells at a constant pace by two Brillopak Crate DeStaker systems.

Once filled, the crates are stacked and palletised by an end-of-line robotic system.

MECHATRONIC HAND THAT PROTECTS THE PACK

Because of the design of the end effector it can be used to load Morrisons entire potato product range. Likened to a glove, the end effector works by enveloping each potato pack. By doing this it can accommodate the different sizes, weights and pack lumps for Morrisons' extensive range - exceeding 14 SKUs in a typical season - without having to swap the tooling over.

For site manager Andy, the new glove concept has more than proved its capability. "With the level of air that's in potato bags it was hard to conceive that a robot hand could load crates at such speed without popping or piercing the bag and damaging product."



A simple, intuitive HMI means it's easy for operatives to select the correct programme and case loading patterns for product changeovers

"Previously, pierced bags has been one of the downsides to using grippers on automated case loading systems," says Brillopak director David Jahn. "Additionally, when layer picking grippers or bomb bay doors release potatoes into trays, they are typically dropped in a haphazard way above each tray in order for the tooling to have space to open. Not only does this damage the product, the presentation is quite hit and miss."

David adds: "Suctioning polybags of heavier potatoes with varied shapes is equally challenging. Because it's not a smooth surface, bags frequently sag and drop onto the packing conveyor, causing the packing line to stop. These frequent line stops have a significant impact on line efficiency and ultimately bottom line profit."

Rather than using stainless steel, which would add to the weight being repeatedly

lifted, Brillopak designed the end-effector using soft food-grade material.

DELTA DEXTERITY

For this Morrisons potato packing line, Brillopak installed two specialist four-arm Spider (Delta) robots within each robotic cell. Each robot has a payload of 5kg, including a head with rotation functionality. In most fresh produce applications a three-arm robot will offer sufficient payload highlights David.

With a reach of 1130mm - 30% more than similar sized robots - the UniPaker system delivers dexterity in a compact footprint. Rumble conveyors settle the packs and deliver them in single file into both robotic cells, ready for automated case loading.

"Brillopak's robot is impressive to watch. It never misses a beat and is capable of orientating packs quicker than any

person is able to do," comments Andy

This level of presentation precision was one of the key drivers behind automating the case loading operation at Rushden. Previously, potato packs were loaded manually into crates. It was labour intensive, incurred packing bottlenecks and resulted in messy tray presentation.

STAFF SATISFACTION

Having worked on both the manual packing and now automated lines, machine operative Dave reflects on the differences the robot cells have made to workers and waste.

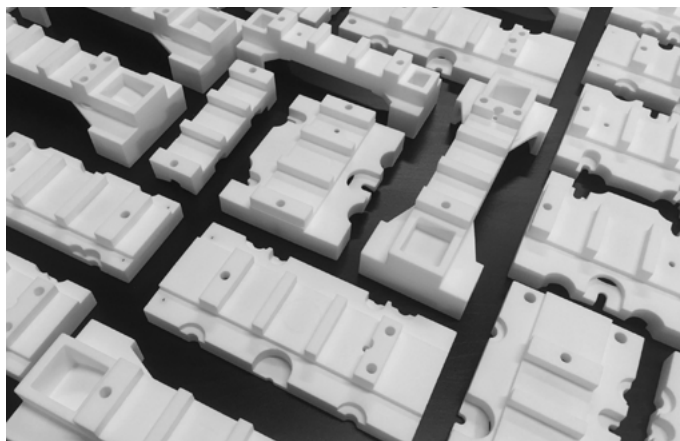
Noting that the UniPaker cell is much more product and user friendly, Dave comments: "By removing 90% of the physical labour from the packing production area, health & safety and people's approach to teamwork has improved. It's a much calmer environment and so much better for staff welfare. It's almost hypnotic to watch when the robots are running."

Additionally, with the introduction of the robotic lines and glove end effector, Dave reports less product rework as a result of split bags.

Describing the robot lines as easy to operate, Dave says the system set up and HMI is intuitive to use, particularly for product changeovers. Having been involved in writing guidelines for team members to reference he affirms: "It's so straightforward to use that I'm never worried about pressing the wrong button and breaking the system!"

Forming part of a site-wide investment in front and back end manufacturing improvements, the Rushden site has seen improvements in Overall Equipment Effectiveness (OEE). Andy attributes these improvements to the increased packing speed, better presentation, less front to back end bottlenecks and fewer staff frustrations.

www.brillopak.co.uk



3DPRINTUK: From Prototypes to Low Volume Batch Manufacture

3DPRINTUK have fast become one of the UK's favourite providers of 3D production. 3D printing is changing the way the manufacturing world sees prototyping, design and development and even mass production, offering a cheap and simply method for strong, accurate and cost-effective small parts and components, but with potential to grow far bigger.

Based in London, 3DPRINTUK is led by Director Nick Allen, a trained product designer with years of rich experience in the industry. Prior to 2011, he spotted a clear gap in the market for 3D plastic production, without the need for CNC milling or expensive injection moulding.

Typically, injection moulding can be quite expensive due to the necessary tooling costs, resulting in both SME and multinational corporations opting for cheaper alternatives that are still high quality and durable.

3DPRINTUK are bridging the gap between injection moulding and prototyping and are able to offer clients a high quality service that offers a quick turnaround, identical and accurate models, and even free polishing for a smoother finish.

Today, 3DPRINTUK specialise in additive manufacturing for low volume production runs and one off prototype production, working with all manner of companies across the UK but mainly SME's. Names they have worked with include Aston Martin, Merlin Magic Making, Brillopak and Brushtec. Part manufacture using Selective Laser Sintering (SLS) machines, can be applied to almost any sector, whether for the production of technology, engineering parts, models and more. In fact, with the SLS 3D printers, the components created are often far superior in terms of functionality and resolution when compared to traditional resin printers.

Over a million 3D parts have been developed by 3DPRINTUK using SLS technology. Their low volume batch production includes 3D printed jigs and fixtures for Brushtec a worldwide manufacturer and designer of innovative brushware; specialising in brushes for the industrial, municipal, and agriculture markets. Brushtec choose SLS printing as "a tactical solution to turn around an improved design quickly without all the setup costs of injection moulding. For some part we make SLS was 55-75% cheaper than CNC milling. What convinced us was the speedy turnaround from 3DPRINTUK along with the accuracy of the output which was far better than we had been able to achieve with other suppliers and also at a reasonable cost."

For further information or to get an automatic quote for your parts visit www.3dprint-uk.co.uk or call 0208 692 5208.

“ 55-75%

cheaper to produce parts
compared to cnc milling.

Brushtec

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BNL doubles thailand manufacturing facility to meet demand in automotive, domestic appliance and atm markets

BNL has completed the expansion of its plastic bearing operations in Thailand, moving operations to a state-of-the-art, larger facility, adjacent to the existing building. BNL Thailand supplies plastic bearings to several industries, including automotive, food processing, photocopiers, domestic appliances and ATM customers. The new 50,000 sq. ft. facility in Rayong will double capacity to support increasing demand on existing products and new business wins in key markets.

BNL Thailand houses injection moulding, manual and automated assembly functions, mirroring the established UK HQ operations, with the Knaresborough, North Yorkshire site also housing R&D, engineering, product design, quality, prototyping, tooling design and tool development capabilities. BNL China also offer additional machining services at their Shanghai site.

For the longer term, the new Thailand facility also has the option to not just double, but triple the previous factory footprint, to 75,000 sq. ft., increasing the current number of injection moulding machines on site by threefold, expanding assembly services and tripling the workforce.

The move to the new facility, managed almost exclusively by the BNL Thailand Management Team, took place throughout August and September making the site fully operational in October.

Jonathan Wilkinson, CEO of BNL stated, "Our team in Thailand have done a fantastic job in making this development happen quickly and efficiently. I shouldn't be surprised; we employ great people in all our facilities and Thailand is no exception. Our customers are our other key partners, collaborating with us to develop innovative plastic bearing solutions. We are encouraged

by their support for our expansion and understanding of how our growth will in turn offer them new and improved services with which to develop and grow their own businesses."

BNL COMPANY PROFILE

BNL is the world leader in specialist plastic bearing solutions and has been at the cutting-edge of plastic bearing technology for nearly 50 years. We design and manufacture high-quality plastic bearings and assemblies for global players in various industries including Steering Columns, Automotive Controls & Domestic Appliances. BNL's headquarters are in Knaresborough, North Yorkshire with additional offices in the USA, Japan and China. We also have purpose-built manufacturing facilities in Knaresborough, Shanghai and Rayong, Thailand.

www.bnl-bearings.com
www.plastic-bearings.com

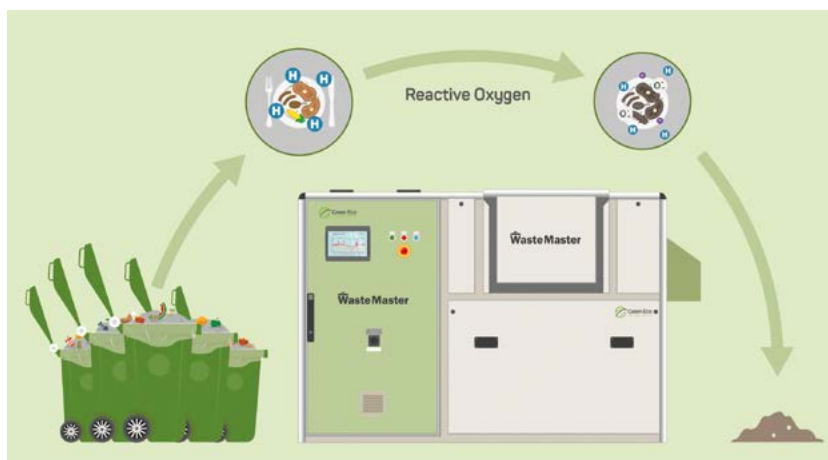
WasteMaster - Automated Food Waste Recycling from Pakawaste

With Pakawaste's new innovative WasteMaster product, you can avoid wasting your food waste ever again! WasteMaster is designed to convert food waste into an odour-free residual material with a high calorific value. This material has multiple uses, including green energy production.

Ideal for caterers, restaurants, hospitals and hospitality professionals, WasteMaster reduces the volume and weight of food waste by up to 80%. Its simple operation means that up to 400kg of food waste can be processed per 24-hour cycle. This is achieved without the requirement for additives or water, all thanks to a clean reactive-oxygen process.

Wastemaster works by agitating the food waste and creating air pockets. This accelerates the natural decomposition process and breaks food down into a compost-like material. Fully automated and simple to operate, WasteMaster requires minimal training to achieve reliable results.

Reclaiming food waste benefits both your



organisation and the environment. With WasteMaster, food no longer has to be sent to landfill, flushed into sewer systems or incinerated. This reduces the amount of methane gas ordinarily released into the atmosphere.

Food waste management and recycling at its best!

For more information, please visit the Pakawaste website now:
www.pakawaste.co.uk/product/wastemaster/



Barrier Packaging Films For The Circular Economy

Innovia Films is launching the first of its new range of transparent high barrier packaging films, Propafilm™ Strata SL.

It has been designed to be a standalone mono filmic solution or, to be used in laminate constructions to be 'recycle ready', or recyclable in countries which have the infrastructure to recycle polypropylene films.

Alasdair McEwen, Global Product Manager Packaging, Innovia Films explains "Our new in-house technology has enabled us to produce a totally new film with unique barrier properties.

Strata SL has a very effective barrier to aroma, mineral oils and oxygen even at high relative humidity levels ensuring increased shelf life and reduced food waste."

The fact that this film is transparent enables wrapped products to be seen by the consumer, a growing trend in the food industry.

This glossy film is also food contact compliant and chlorine free.

McEwen continued "All our beta trials during the development of this product have been very effective.

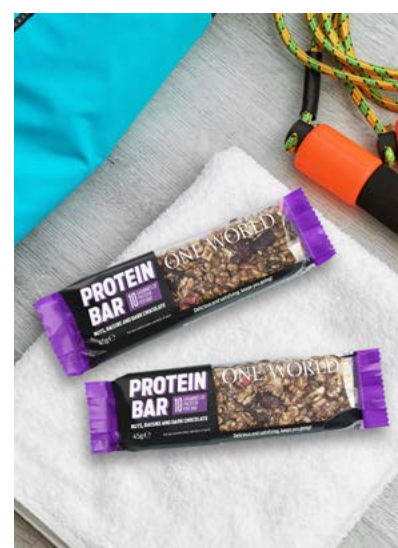
Strata SL has performed exactly as we expected, proving excellent machinability and printability.

Some of our customers are currently running shelf-life tests to prove the product for their particular application which will provide us with real test results.

Our target markets for this packaging film are cereal bars, biscuits, snacks, dried fruit and nuts as well as tea and coffee.

This new development is very timely in view of the industry move towards recyclability and a circular economy.

Our next product launch will follow very soon and will offer even higher barrier levels."



If you want more information or to trial this new film for your products then contact packaging@innoviafilms.com

www.innoviafilms.com



ForFarmers services the co-product needs of hundreds of UK food & drink producers

ForFarmers' lifeline delivers smooth operation at Manor Vinegar

Removing the spent grain each day from its production site is essential to keep Manor Vinegar's brewing operation running smoothly. A daily co-product collection service from ForFarmers is not only helping the company to meet its challenging production schedule, it's also bringing in additional revenue – and saved Manor Vinegar from a three-week halt in production when a serious incident occurred.

ForFarmers collects, blends and trades over half a million tonnes of co-products each year from UK food and drink producers. Known for its punctual and professional service, as well as delivering increased revenue for its customers, it has been handling Manor Vinegar's co-product needs for over 15 years.

Based in Burntwood, Staffordshire, Manor Vinegar is one of Europe's largest vinegar producers. It has supplied malt, spirit, distilled, speciality, and red and white wine vinegar to retailers, wholesalers and food manufacturers for over 100 years. A by-product of its operation is spent brewers' grain, which is stored on-site in a silo. It is essential for Manor Vinegar that the silo is emptied of co-products each day for the firm's continuous operation to be maintained.



Seamus Clarke, Production Manager at Manor Vinegar

A FLEXIBLE FRIEND

"Our production volumes can vary, which alters collection times, so it's essential that our co-product collection partner is flexible," explains Seamus Clarke, Production Manager for Manor Vinegar. "If not, we would quickly reach our storage capacity and be forced to halt production."

To ensure this doesn't happen, the ForFarmers account managers, in conjunction with its hauliers, communicate closely with the in-house team at Manor; predicting, planning and reviewing collection times on a daily basis, including weekends and evenings, to ensure the drivers arrive at precisely the optimum moment. As a result, Manor Vinegar is able to meet its rigorous production schedule.

"ForFarmers realise how important flexible collections are and the impact of any delay, and work hard to ensure their drivers arrive at the right time for us each day," adds Seamus.

"It's a balancing act," says Paula Parker, Bulk Feeds Trading Manager at ForFarmers. "We understand that there's a very small window between maximising the collection haulage costs for Manor Vinegar (i.e. making sure the tipper trailer is as full as possible) and ensuring they have the space they need to store the spent grain from their next brew. We know how crucial this is – if we get it wrong then quite simply, their production stops."

GOOD RATES OF RETURN

Not only does this service enable smooth production at Manor Vinegar's site, but the co-products also bring in an additional revenue stream. ForFarmers' experienced commodity broking team strives to achieve the greatest return for Manor Vinegar by selling this valuable resource to farmers as animal feed. In fact, ForFarmers is responsible for feeding one in every four UK dairy cows, even creating new and bespoke animal feed blends through its in-house nutrition innovation centre to further increase co-product values for its customers.

"While keeping production running smoothly is our primary concern, knowing that we're getting a good rate of return for our co-products – and that they're helping the food chain by being sent to farms – is a bonus," states Seamus.

DEALING WITH DISASTER

However, ForFarmers really proved their worth as a partner early in 2019, when a major incident occurred at Manor Vinegar's site. "A high-sided vehicle collided with the silo storing the spent grain and destroyed the discharge mechanism. It caused the grain to spill onto the floor and left us with a mash tun of fresh co-product," begins Seamus. "We had a full order book but with nowhere to store the grain from each brew, we were forced to halt production. Initial enquiries into repairing or replacing the silo saw us looking at a downtime of at least three weeks – disastrous for our business."

Hoping to find a speedier solution, Seamus called ForFarmers for advice. The situation was quickly taken in hand by Paula, who arrived on site within hours. "Spent grain is extremely hot so to avoid any health & safety issues, I made its safe removal from the site my first priority. However, it was now contaminated and in breach of FEMAS regulations, meaning it could not be sent to farms as animal feed. I therefore arranged for it to be removed within 24 hours and disposed of via land spreading."

FORFARMERS' FAST THINKING

With one problem solved, Paula then turned her attention to finding a temporary silo replacement to enable production to restart. "Having visited many food and drink production sites, I was aware that another of our customers pipes their co-products directly into a trailer from the mash tun, without the need for a silo. I worked with Seamus and his team to measure the site and determine whether there would be enough room to accommodate an articulated lorry and associated



Above, Manor Vinegar's spent grain is collected by ForFarmers and sold for animal feed. Left, When Manor Vinegar's spent grain silo was damaged, halting production, ForFarmers proposed a solution that had them up and running again in just 30 hours



Manor Vinegar's distillation plant

pipework to do the same thing in this case, and we agreed there would be – just."

Following ForFarmers' specifications, Paula's team hired a trailer while Seamus arranged for the necessary engineering work to take place overnight, so that the first direct-piping test could be carried out the following morning. Taking care that the pipe delivered into the middle of the trailer for balance, to ensure it didn't tip, the cautious team began with just 15 tonnes, gradually ramping up the tonnage over the course of a few hours.

RESTARTING PRODUCTION

The solution proved such a success that Manor Vinegar was able to resume production just 30 hours after the silo was first damaged.

"At a really difficult time for our business, ForFarmers' staff were full of ideas and knowledge, demonstrating their considerable experience within the food and drink industry," says Seamus. "Not only did they help us to safely dispose of the spilt product, they also ensured we stayed compliant with the relevant regulations, and enabled us to restart production within just 30 hours. They really came to our rescue."

Along with Manor Vinegar, ForFarmers works with a wide range of food and drink producers across the length and breadth of the UK, collecting, trading and blending their co-products into premium animal feed for British farmers, providing the optimal closed-loop sustainable food chain solution.

www.forfarmers.co.uk



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