



FOOD & DRINK PROCESSING & PACKAGING



The Smart Food Factory
Is Closer Than You Think

Efficient and process-
controlled access guarding
without muting sensors

PLUS...

Rigid meets growing demand for sustainable
corrugated packaging at its Wellington site



Issue 24 2019



THE NEW FILTER FAN PLUS
**EXPELS MORE AIR FROM
AN ENCLOSURE.**

STEGO 'the protector of electronics' have developed a new filter fan series. This series has a more effective airflow and significantly increases air volume, thanks to its unique air-flap outlet technology, and only one filter mat. But there is more ...

TAKE A LOOK AT ALL PRODUCT HIGHLIGHTS:
 **WWW.FILTERFAN-PLUS.COM**



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Impact Handling's Top 10 Tips: Lead-acid battery maintenance

A good fork lift truck battery maintenance regime will maximise productivity, enhance site safety and help minimise fleet costs. So here is our top ten list of the everyday things fleet managers and operators can do to get the most out of lead-acid battery powered equipment.

1) Monitor levels

Maintaining the correct battery fluid levels is an essential part of extracting the full performance potential from any battery. Levels should neither be too low nor too high – top up the cells so that the plates and separators are just covered by electrolyte. Battery manufacturers recommend that levels are regularly checked. Doing so will also help prevent premature damage or failure. Always make sure that only distilled, de-ionised water is used when topping-up any lead acid battery.

2) Top-up AFTER a charge and NOT before

As the water in batteries is critical to the transfer of energy, the introduction of fresh water must occur at the correct time during its charging cycle, which is after the battery has completed its charge and never before. Electrolyte expands when it gets warm so topping up before a charge can result in spillage of electrolyte.

3) Ensure battery and charger compatibility

There is an important difference between a charger that simply works and one that is specifically designed to correctly charge a given type and make of battery. Check with battery suppliers to confirm that the correct charging equipment is being used. Using incorrect chargers can be extremely dangerous, can damage batteries and may also compromise insurance cover. Always follow the charging procedure shown in your charger's manual.



4) Allow batteries to fully charge

Batteries will always perform best after a full charge.

Avoid the temptation to partially charge them, or to interrupt a charging cycle.

Doing so could damage the battery permanently, reducing its capacity as well as potentially shortening its life.

5) Let batteries cool

A typical lead acid battery needs to be left for a good two hours to cool after every charge. Build this time into your charging schedule and make it a mandated part of your health and safety best practice.

6) Keep an eye on the BDI

Equipment operators should continually monitor the status shown on Battery Discharge Indicators.

Batteries should ideally be recharged when their indicator shows around 25% charge remaining.

Doing so will keep them in optimum condition and allow the battery to deliver its maximum capacity for longer.

Newer machines are also programmed to cut out the hydraulic function when 80% discharge is reached, preventing lift, however drive functions remain unaffected.

7) Check Cables, plugs and chargers

Battery leads can be prone to damage or corrosion, as can plugs and chargers. Check all equipment and connections and report any frayed wires or worn insulation.

A weekly visual inspection will help identify any issues before they can affect the operation of the machinery.

8) Use batteries evenly

When operating more than one battery, such as in multiple shift environments, make sure that they are all used and charged evenly.



This will avoid the risk of any one battery being over-cycled, which could result in a decrease in performance and shortening of its useful life. Implementing Battery Monitoring System technology will keep operators informed of batteries' status and ensure even use.

9) Keep lids clean

The lids of battery cells should always be kept clean and free from debris. Doing so will prevent potential earth leakage and any subsequent reduction in capacity.

10) Think safety!

Whenever working with batteries always wear suitable protective clothing and use appropriate safety equipment.

Ensure spill kits and an eye wash station is located within your charging area.



Remember to also provide good ventilation to all batteries and chargers when charging and keep battery compartment lids open if charging the battery in situ.

And don't forget to safely store the charge cables when not in use, this will avoid unnecessary damage as well as removing any potential trip hazards.

www.impact-handling.com

Still Worrying About Your Weight?



Batch Weighing Made Simple

Kecol has introduced a batch weighing system to its range of viscous pumping equipment.

The system allows an operator to enter the required weight of a batch of material, press the start, and the pump will automatically stop when the target weight is reached. Over 20 pre-set weights can be stored within the controller ready to be recalled at the push of a button.

The batch weighing system can be linked to any Kecol pump or priming system and it's Kecol, so it will handle viscous materials. The system can also be used with other air operated pumps such as diaphragm pumps.

The system is suitable for weights up to 200Kgs. with bench mounted or floor mounted weighing platforms.

The filling operation is performed in two stages, a course fill followed by a fine fill. This allows the receiving vessel to be filled at maximum flow for 95% of the capacity with the pump automatically slowing down for the final 5% to increase accuracy.

The system is available as a self-contained unit including a stainless-steel bench (as the photo) or can be supplied to mount to an existing bench.

Search "KecolUK" on YouTube to see a video of this and other Kecol systems.



For more details or to arrange a trial, please contact Kecol.
+44 (0)1746 764311
www.kecol.co.uk
sales@kecol.co.uk

THE **HOME** OF VISCOUS PUMPING SOLUTIONS

Kecol have over 25 years of experience in handling all types of viscous products in the food, pharmaceutical and cosmetics markets, as well as general industrial applications.

A sample of products we already pump...

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- ✓ Petroleum Jelly
- ✓ Mascara
- ✓ Sauces
- ✓ Lanolin
- ✓ Lip Gloss
- ✓ Essences
- ✓ Eye Ointment
- ✓ Meat Paste
- ✓ Paraffin Wax
- ✓ Face Scrub
- ✓ Teething Gel
- ✓ Tomato Puree
- ✓ Medical Adhesives
- ✓ Veterinary Creams
- ✓ Fruit Paste
- ✓ Toothpaste
- ✓ Malt
- ✓ Jam
- ✓ Wax

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Doughnut Peddler makes over 800,000 deliveries each year of freshly baked goods

Entry Level Ultrasonic Food Cutting & Portioning

Investment in four Stealth Metal Detectors from Fortress Technology has underpinned an aggressive expansion program for North American bakery company, Doughnut Peddler. The presence of reliable, industry-leading metal detectors has enabled the dynamic doughnut producer to elevate its lines to top food safety standards, meeting Good Manufacturing Practice requirements and winning the confidence of new retail customers.

As with America, the European doughnut market is experiencing growth, with specialty retail outlets and bakeries the primary distribution channels. Globally, the market is projected to reach around USD 55.0 billion by 2024, growing at a CAGR of 5.2% over the forecast period (2016-2024). In the space of three years, Doughnut Peddler has gone from being a single-bakery operation servicing a single state, to a multi-site enterprise supplying retailers across nine North American states.

"We always strive for perfection in terms of efficiency, food safety and quality.

We want to hit the highest industry standards and make sure we protect our customers and end-consumers with a safety program they are confident in. Metal detection adds another layer of 'failsafe' protection," explains Jason Yada, National Director of Sales at Arizona-based Doughnut Peddler.

"We've seen a snowball effect in the last three years. Once our customers see what we are capable of, they want to work with us in other territories. We've been firing on all cylinders to meet this growth," says Jason.

To keep pace with demand, 2017 saw the opening of two new bakeries - in Chattanooga, Tennessee, and Charlotte, North Carolina, and Doughnut Peddler opened two further sites last year, in Orlando, Florida and Houston, Texas.

The company is now making more than 800,000 deliveries each year, transporting over 60 million doughnuts, cinnamon rolls, apple fritters and other freshly baked goods, to convenience stores across North America.



Doughnut Peddler has installed four Stealth conveyor systems, each checking 160 doughnuts per minute

The company had always wanted to invest in metal detection, but needed a business justification for the investment. This rapid expansion provided the opportunity and the commercial case that Doughnut Peddler needed.

Word of mouth

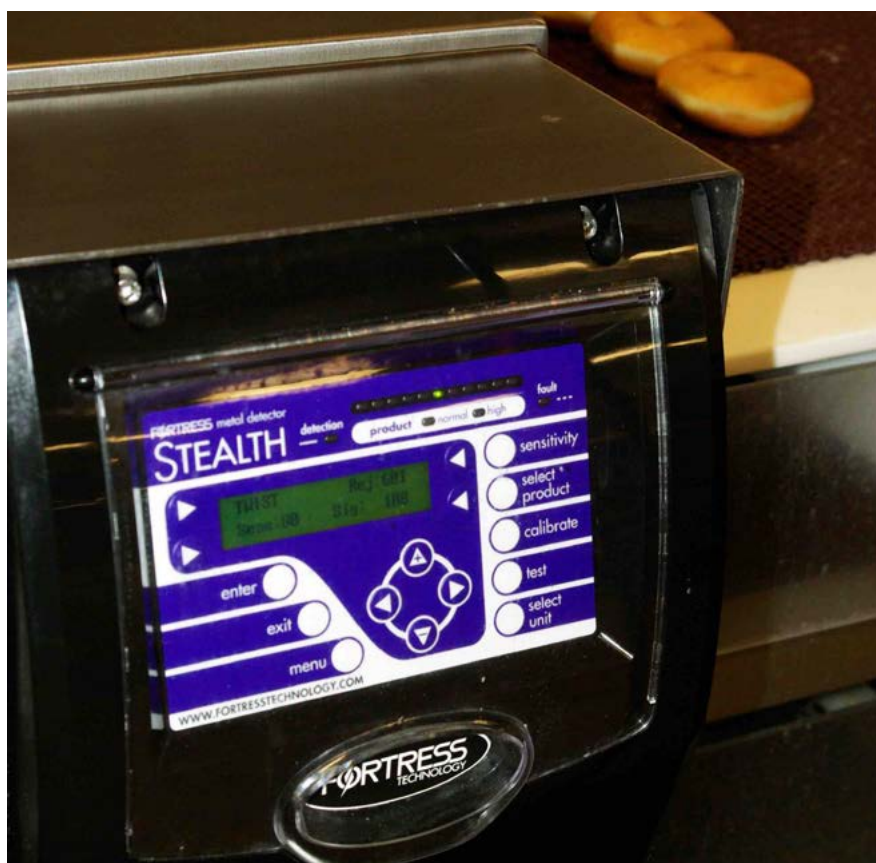
"We looked at various options and suppliers, gathered quotes and asked colleagues in the industry to share their experiences. We received positive feedback from everyone who had owned a Fortress unit – no-one had anything negative to say about them," recalls Doughnut Peddler's Jon Dairman, Senior Operation Manager – Procurement.

Doughnut Peddler's brief, in terms of what it wanted from its metal detectors, was straightforward. "Just to detect metal. We didn't want any bells and whistles, just something reliable – I wanted it not to be an issue, to be able to set it and forget it," says Jon.

From a metal detection perspective, the project wasn't entirely straightforward. Doughnuts come out of the fryer and onto a 12ft cooling conveyor made from high temperature belting. Doughnut Peddler wanted to mount the detectors at this point, as it provides the last opportunity to check the doughnuts before they are packed into plastic trays that sit in metal baskets. However, the combination of high temperatures and moisture creates a 'product effect' that can confuse metal detection equipment, as it cannot discriminate between this and actual metal contamination. This can result in frequent false rejects being triggered.

With Doughnut Peddler's lines running continuously at speeds of 160 doughnuts per minute, the company could not entertain the possibility of false rejects disrupting production.

Fortunately, the Fortress Stealth metal detectors were able to achieve reliable performance on this product. The powerful digital signal processing technology – a technical platform that drives the detector – provides high-speed precision detection, while the dual



Fortress' Stealth kit features FM Software to enhance the detector's performance and stability

frequency operation facilitates automatic compensation for extreme product characteristics. All the processing power is contained on one board, versus multiple boards often found on competitor models. One of the technical Fortress features – FM Software – also enhances the detector's performance and stability, especially in difficult applications.

These technical and mechanical features ensure that signals, due to mechanical, electrical, airborne and product, are cancelled out or eliminated. This allows the detector to effectively identify signals created by the three types of metals Ferrous, Non-Ferrous and 300 Series Stainless Steel, overcoming the risk of false rejects.

Four full conveyor Stealth systems are installed on lines in the company's North Carolina, Tennessee and Florida bakeries. As Doughnut Peddler continues to pursue an ambitious inter-state growth strategy, the ability to demonstrate this level of rigour is proving beneficial, states Jason: "We are already seeing that having enhanced product protection in place has the potential to unlock different customers.

Some of the potential customers we are reaching out to are even more encouraged in working with us as they learn of our use of the robust metal detection HACCP plan we have in place."

COAST-TO-COAST DOUGHNUT DELIVERIES

- Just three years ago, Doughnut Peddler was servicing the single state of Arizona. At that time, the company was delivering all over the state with approximately 6,000 miles driven nightly.
- Today, Doughnut Peddler drives well over 25,000 miles every night (the equivalent to circling the circumference of planet earth), delivering doughnuts to valued customers.
- Lined up end-to-end in a straight line, doughnuts delivered by Doughnut Peddler in 2017 would stretch from Los Angeles, California, to New York and back – the equivalent of 5,000 miles of doughnuts being scanned through Fortress metal detectors annually in Doughnut Peddler facilities.

Precision Dosing with Style

If the Bulk Solids & Handling Industry has a mantra, it would be “complete accuracy” – this is particularly relevant for equipment such as Augers. These tools are increasingly expected to perform with efficiency.

Over the past 20 years, Lancashire-based Trantec Solids Handling have designed and manufactured an extensive range of bespoke Augers which predominantly handle bulk solids, fine powders, granules, flakes and pellets with consistency and precision.

Over the years, Trantec has worked hard to develop modern methods of Auger Screw Production, by embracing Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) as a means of manufacture.

Auger screws are increasingly expected to operate continually whilst receiving minimal maintenance. It is quite common for Augers to be subjected to adverse conditions, which ultimately cause them to need to be replaced.

Often, the replacement part must come from the original equipment manufacturer, who charges a premium fee for such a bespoke component.

Trantec now offer its own bespoke Auger manufacturing service and specialise in supplying replacement parts for existing auger-screw based machinery such as Bulk Solids Filling or Dosing equipment.

Food and Pharmaceutical machinery have their own requirement for a hygienic design. For this reason, the Auger screws need to be durable and have a long productive life. It was normal for Trantec to use Augers manufactured by others.

Despite their functionality, something was missing.

The key ingredients boiled down to consistency and durability. As a result, over the years with the development of Trantec’s M-series metering screw feeders (which incorporated many quick-release and easy-clean features), the demand for high quality Augers was even higher. As a result, the decision was made to develop Trantec’s own Auger manufacture.

Since accuracy and precision dosing are important in the production and manufacturing process, Trantec have focused their Auger production at the “Elite” end of the market. The result always needs to be 100% right, which is why having quality tools to hand is so important. This is something Trantec knows a lot about. Trantec’s investment in these “quality tools” such as computer-controlled machine, combined with modern design & manufacturing software has enabled Trantec to have unique knowledge of Auger production methods. On top of that, this has also put them at the forefront of world-wide Auger manufacture.

Many of our clients require solutions that require high quality products. Trantec’s policy of continuous development pushes the boundaries of current engineering manufacture and produces Augers of better quality and finishing than ever before. Trantec’s advanced manufacturing techniques save costs and provide a quality product to the customer at a competitive price at a fraction of the OEM price.

On top of that, Trantec can deliver a fast 24-hour turnaround for Augers. This means consistency, speed and customer satisfaction is at the forefront.

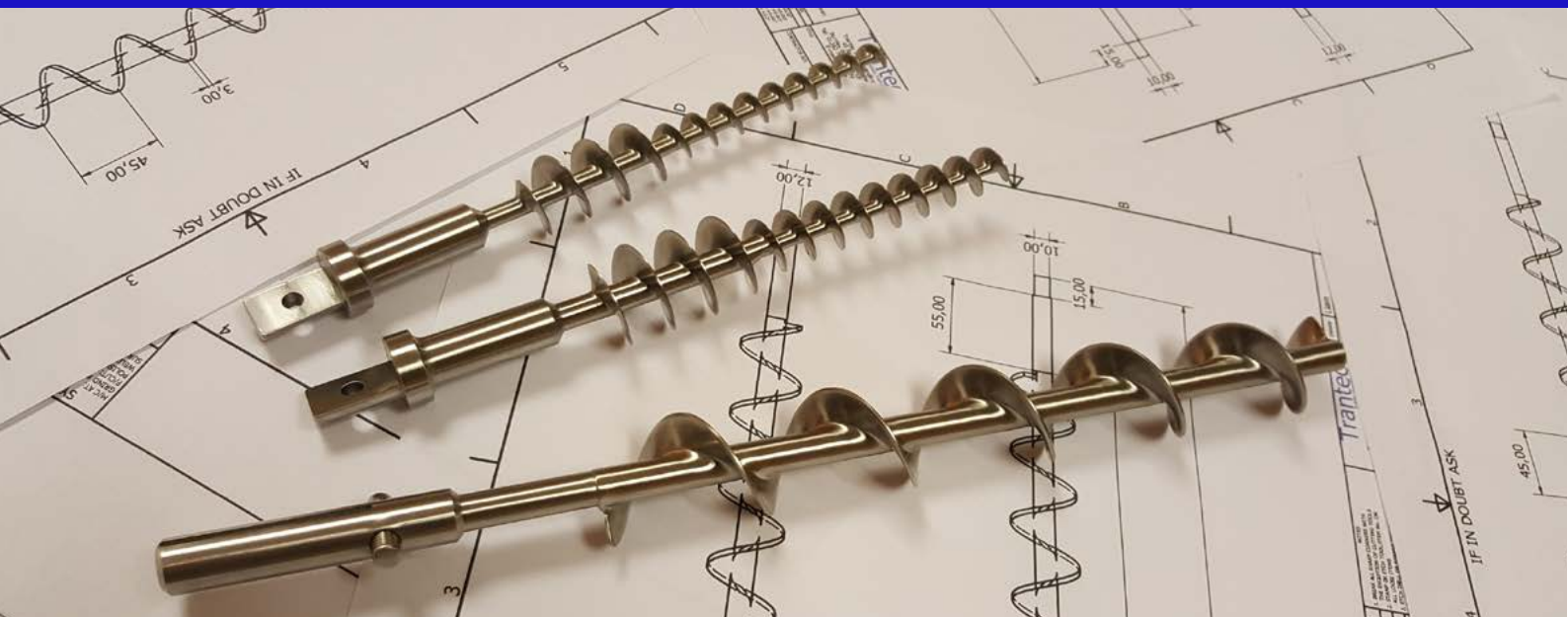
Several years ago, Trantec bought their Auger manufacturing capabilities to the marketplace and now manufacture for leading players in the Chemical, Food & Pharmaceutical industry.

As their firm commitment to the market and contribution Trantec continue to develop new Auger making facilities and methods.

They have been successfully experimenting with multi start Augers at low feed rates. Moreover, Trantec is also the first company to use Triple start Augers which gives them a unique foothold in the Auger manufacturing market.



For more information about Trantec’s Augers and other products, please call 01282 777566. Visit our website www.augers-uk.com

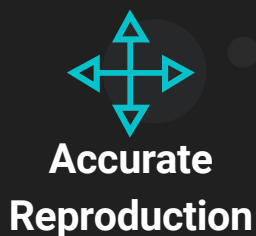


Auger manufacturing for the 21st century

Augers-UK offer a custom-made manufacturing service, specializing in the supply of replacement parts for existing auger-screw based machinery, such as Bulk Solids Filling or Dosing equipment.

Adopting "aerospace" methods of manufacture produces a superior product, fractions of a millimeter in accuracy are typical and can be maintained across batches. Our advanced manufacturing techniques save costs for our clients.

We have clients in the Food, Animal, Pharmaceutical, Environmental, Nonwovens, Chemical and Plastics sector.





Keep your cool with the HardCap AeroLite® - the lightest best performing full shell Bump Cap available

The HardCap AeroLite® from JSP is the lightest, best performing, full shell Bump Cap on the market weighing less than 135g without compromising on performance.

It is designed to be worn in work environments where there is a risk of impact to the front, top and also scrapes to the side of the head from stationary objects.

The HardCap AeroLite® is extremely lightweight and comfortable, which is really important to individuals who need to wear bump cap protection for long periods of time in today's busy demanding environments.

The sleek textile cover has large open weaved panels to facilitate the transfer of cool air to the head reducing heat build-up and discomfort making it one of the coolest caps on the market.

Underneath the textile cover is a tough HDPE shell and a lightweight EPP impact liner offering class leading impact performance. The HardCap AeroLite® looks stylish and feels good to wear with the added padding for extra comfort and optimum fit. The padding is replaceable and the comfort pad and sweatband are moisture wicking to move sweat away from the skin.

The Polygiene® treated sweatband and foam-cushion comfort pads guard against the growth of bacteria, fungus and mildew reducing skin irritations and odours and therefore requiring less washing. The Polygiene® treatment is permanent and effective for the lifetime of the product. Wear more and wash less® – Polygiene® treated garments can be used more times before washing and can be washed at lower temperatures which means that you save energy, water, time and money.

Tested to BS EN 812, the HardCap AeroLite® consistently exceeded its requirements, recording an average transmitted force of just 5kN – well below the maximum 15kN allowed by the standard. It was also successfully tested at temperature extremes of -40°C and +50°C, making it the best-performing full-shell bump cap on the market.

The HardCap AeroLite® is adjustable to fit head sizes from 53cm to 63cm and available in black or blue, with either a 50mm or 25mm peak. The longer peak provides more shade in outdoor or brightly-lit environments, while the shorter version allows for better vision when looking upward. The large reflective areas on the side panel of the textile cover and the reflective piping around the peak provide extra visibility in low-light conditions. This textile cover is removable and machine washable.

www.jspsafety.com



NSK Molded-Oil bearings extend service life in food plant conveyor application

A vegetable processing plant in Germany is enjoying significant benefits following the adoption of Molded-Oil bearings from NSK. Principally, the move has helped the company extend the service life of bearings on a critical conveyor from two weeks, to 40, saving considerable maintenance costs and downtime in the process.

Keen to resolve the question of why its previous bearings were failing at such an unusually fast rate, and eliminate the associated cost and time issues, the company asked NSK to investigate.

During the inspection, NSK experts soon determined the cause. Due to the rigorous hygiene standards demanded by food industry regulations, the system was cleaned thoroughly on a regular basis. However, it was found that the cleaning process prompted considerable quantities of water to penetrate the bearings and, as a result, wash away the lubricating grease.

To help combat the challenges presented by the frequently required wash cycles, NSK recommended the use of its sealed Molded-Oil bearings.

A special tribology concept (tribology is the science of wear, friction and lubrication) has been implemented for Molded-Oil bearings.

For instance, the bearings are equipped with NSK's proprietary oil-impregnated material, which comprises lubricating oil and an oil-related polyolefin resin. This material releases the lubricant, which cannot be washed out due to its consistency, continuously over a long period. At the same time, the carrier material prevents water or solid impurities from penetrating the bearing.

By adopting the bearings, service life at the plant has increased from two weeks to more than nine months. This highly successful outcome once again confirmed NSK's 'rule of thumb' that Molded-Oil bearings achieve at least twice the service life of conventional grease-lubricated bearings in water and dust-contaminated environments. In this particular case, service life increased by a factor of 40.

The plant is also experiencing many other benefits. For instance, the operating environment remains clean because no grease escapes and no oil needs to be refilled.

Molded-Oil bearings are therefore ideally suited to food industry applications, where thorough and frequent cleaning processes are essential.

The use of stainless steel for the bearing components also contributes to this suitability.



NSK supplied the bearings for the vegetable processing plant with highly effective contact seals (DDU) on both sides for even higher levels of protection.

This option is available for the standard range of Molded-Oil ball bearings.

Molded-Oil is also available on spherical roller bearings and tapered roller bearings.

The special features of Molded-Oil bearings and other bearing series developed by NSK for applications in food processing are described in a new brochure, which is available as an e-book on the website below.

NSK Literature

www.nsk-literature.com

Efficient and process-controlled access guarding without muting sensors



Innovative strength, a down-to-earth culture and strong commitment are the values that have made WITRON – based in the Upper Palatinate region of Germany – the company that it is today: worldwide one of the market leaders in the planning and realization of highly dynamic warehouse and order picking systems in the field of intralogistics. WITRON is constantly working on developing even better, even more cost-efficient logistics solutions for its customers, to make them even more successful. In the area of automation and further optimization of warehouse logistics, the selection of suitable, competent and innovative partners also plays a decisive role for WITRON. WITRON relies on creative solutions from Leuze electronic not only in its own production and warehouse logistics. The company also realizes efficient safety solutions for its customers together with optical sensor manufacturer Leuze electronic.

This includes the use of "Smart Process Gating" (SPG), a process developed by Leuze electronic that enables access guarding with material transport to be designed more compactly, simpler and safer.

Safety first

When man and machine meet in a technical environment, it must be possible to stop machine and system parts within a fraction of a second. "The safety of all persons who work in one of the many logistics centers of our customers around the world – whether in industry, retail or service – is the asset most worthy of protection," explains Stephan Schmid, experienced project engineer in the area of development and control technology at WITRON. This means: appropriate areas are equipped by WITRON with safety devices or fencing that meets the applicable standards and norms so as to eliminate accident risk before it can even occur.

But because it is not possible to completely fence in all areas in which man and machine meet in a networked, mechanised system, WITRON is working on, e.g., conveyor lines with safety light curtains. These must reliably distinguish between people and merchandise.

The classic safety solution

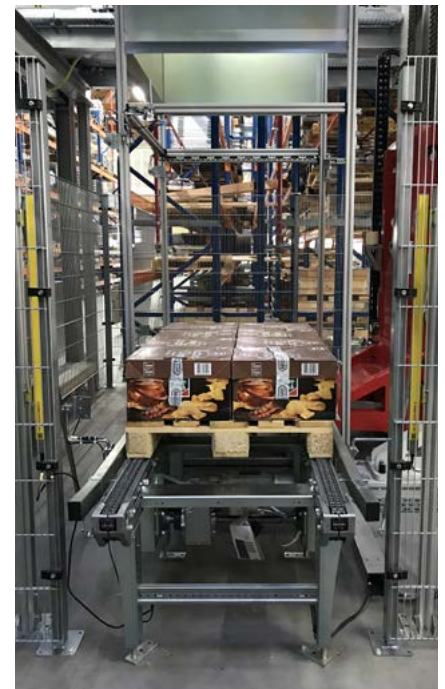
Especially in intralogistics and in the automotive and packaging industries, affected areas must be safeguarded by optical safety sensors. To unambiguously recognize transported goods as they approach a protective field and to bridge this for passage of the goods at the proper time, muting processes with signal-emitting muting sensors were used across the industry in the past. These sensors were installed in addition to the safety light curtains and enabled pallets and transported goods to move in and out without interruption. In front of and behind the safety light curtain, however, quarters are usually a bit tight.

The additional use of bridging sensors often required more space, leading to an even less-compact system design. The installation and service effort for the additional set-up, alignment and re-alignment of these sensors also resulted in additional work. "This led WITRON to search for a solution that combines process reliability, system availability and easier operation with one another," explains Schmid.

Muting reinvented

At that time, Leuze electronic did not yet have a practical answer to this requirement, but did already have a project idea: "Smart Process Gating" – based on its MLC safety light curtains. Leuze electronic presented this to its key customer WITRON in a very early development phase. WITRON was quickly convinced of this idea and accompanied

the creative Leuze development in numerous practical tests. "Smart Process Gating" was then put through its paces at and by WITRON on its test tracks in its company headquarters in Parkstein in the Upper Palatinate region where it was optimized together in detail. "The result is impressive: a clever solution was created that combines the requirements for safety at work with high process reliability and system availability," explains Josef Apfelbeck, key account manager and specialist for intralogistics at Leuze electronic. With "Smart Process Gating" a new process was created that enables muting processes to be executed more easily, more compactly and more stably. With the SPG principle developed on the basis of its MLC safety light curtains, it is possible to completely forego the previously necessary signal-emitting sensors.



Process-controlled access guarding in intralogistics.



Josef Apfelbeck, Leuze electronic (l) and Stephan Schmid, WITRON (r) have collaborated for many years.

Conveyor systems can thus be made more compact. During the operating phase, the risk of misalignment or damage to the sensors is also eliminated as are the costs for their maintenance and servicing. The availability of the entire safety device is thereby increased and other practically oriented risks reduced.

With SPG, the first muting signal comes from the process control (PLC), while the second muting signal is generated by the protective field itself. Smart Process Gating requires a controlled material flow so that the necessary PLC control signals are made available in the expected time window. The MLC 530 safety light curtain variant with Smart Process Gating is TÜV-certified for safety. In combination with a standard control, a performance level PL d can be achieved, which is sufficient for

many applications in intralogistics. With a safety control, performance level PL e is also achievable.

Nothing is possible without

Leuze electronic and WITRON are linked by a long-standing customer-supplier relationship that goes back to the early 90s and is based on a trustworthy collaboration with mutual respect. "Many hours of hard development work, joint project planning, discussions, testing on the material locks of test conveyor lines with WITRON as a strong partner at our side have led to an impressive result," says Apfelbeck proudly. Schmid explains: "Attractive for WITRON are, above all, the stability and high availability of the safety device – all with less work. This is confirmed by our on-site teams and

by our customers alike." Since the fall of 2016, WITRON has used Smart Process Gating and this new technology as a standard solution in all of its projects worldwide – in both the retail sector as well as in industry and the service field. Systems designed by WITRON with SPG as safety devices can now be found in France as well as in Norway or the USA. Like everything that leaves the factory in the Upper Palatinate destined for end customers, the safety modules were tested on the test track in Parkstein by WITRON. WITRON also uses "Smart Process Gating" for its own internal training purposes as well as other sensor solutions from Leuze electronic: whether AMS measuring sensors in WITRON's high-bay warehouse or the BCL 300 bar code reader for identifying codes.

Process-controlled access guarding in the packaging industry.





A recent addition in the area of high-bay storage devices at WITRON is the Leuze DDLS 500 data transmission photoelectric sensor with EtherCAT interface.

"Nothing leaves our factory before we have thoroughly tested a new component or new technology ourselves. We only recommend solutions to our customers that have proven themselves in practical tests – that's our philosophy," says Schmid: "The Smart Process Gating principle also had to withstand a number of hardness tests.

Today, it convinces us on all counts and is used as a standard solution in projects with material flow."

2019 GIT Security Award for SPG

Not only WITRON and Leuze electronic as the inventor of Smart Process Gating swear by the new SPG technology. A jury of experts with representatives from BHE, TÜV, VDMA, ZVEI, integrators and users voted "Smart Process Gating" to the top 10 of the 2019 GIT Security Award. Readers of the GIT Sicherheit, GIT Security and messtech drives Automation trade magazines and their online communities even chose the SPG muting process, which completely forgoes the need for signal-emitting sensors, as the gold winner of the award, thereby also nominating it for the "Best of Industry Award 2019."

**GIT
SECURITY
AWARD
2019
WINNER**

GIT Award winner "Smart Process Gating," based on the MLC 530 safety light curtains from Leuze electronic, is nominated for the "Best of Industry Award."

Leuze

www.smart-sensor-business.com



How to Overcome Your Production Challenges In Meat, Poultry and Seafood

Meat, poultry and seafood manufacturers face many pressures on their production lines. Maintaining a hygienic production area, adhering to stringent regulations and standards and maximizing uptime are just some of the key challenges in the industry.

METTLER TOLEDO works with customers from across the world to develop robust inspection programs to maximize productivity and ensure they produce the highest quality products to meet retailer and customer requirements.

We spoke with Mike Bradley, Head of Sales at METTLER TOLEDO Safeline, one of the leading metal detection manufacturers for the food processing industry. In this article, Bradley discusses five key inspection challenges that meat, poultry and seafood manufacturers face and how, by using the latest metal detection technology, they can overcome these challenges and provide additional benefits to their enhance production lines.

Reducing waste

As with most food production companies, meat, poultry and seafood manufacturers are under constant pressure to maximize productivity. One way to do this is to reduce, or better still eliminate, false rejects and unnecessary product waste on their production lines.

Historically metal detectors have struggled to maintain the highest sensitivity levels without suffering from some level of false triggering.

Particularly on production lines where the product signal can vary due to the varying moisture content of each inspected product.

Bradley explains: "One of METTLER TOLEDO Safeline's latest developments is the Profile Advantage metal detector which significantly reduces the occurrence of false rejects through its patented Multi-Simultaneous Frequency and Product Signal Suppression technology. This innovative technology dramatically reduces the size of the signal created by the product, which in turn means the metal detector can detect up to 50 percent smaller irregular-shaped metal contaminants, and more importantly virtually eliminate false rejects."

Maximizing process efficiency

In a world where uptime and productivity is key, food manufacturers are looking to equipment suppliers to come up with innovation that addresses both issues.

With this in mind, product inspection equipment needs to be operating as effectively as possible in terms of detection capability, whilst minimizing the occurrence of downtime.

Bradley explains: "Our Profile Advantage metal detector isn't just designed to detect more and smaller pieces of metal; it's also designed to support customers to maximize production line uptime and improve their overall equipment effectiveness (OEE).

Here's how:

Intuitive clustering technology means that a single product setting can be used for multiple products, reducing the set-up time during product changeovers.

Condition monitoring continuously monitors the metal detector's performance, providing an early warning of any potential issues so they can be addressed during periods of planned downtime, before potential downtime is incurred. On-board OEE reporting documents the metal detector's availability, reliability and quality as part of the overall production line performance.

"Ensuring manufacturing processes are robust, efficient and streamlined adds value to a business and enables manufacturers to develop the edge over their competition.

Profile Advantage metal detectors provide a vital building block to establish improved processes and manufacturing efficiency," adds Bradley.

Complying with food and operator safety standards

In a competitive industry governed by strict standards, regulations and legislation, the stakes for manufacturers are high.

Bradley explains: "Inspection devices sit at the heart of any well-designed production process, and manufacturers need complete peace of mind that they are meeting all compliance requirements."

Globalization of food trade networks has driven the need for international food safety standards such as the Global Red Meat Standard (GRMS). Retailer Codes of Practice, local legislation and trade associations such as the North American Meat Institute (NAMI) add further complexity.

Bradley continues: "With added regional complexities to food safety standards, it is important that appropriate product inspection equipment is installed across all critical control points. Not only to ensure that all standards are met, but to further reduce product waste."

A robust product inspection program could include equipment at each of these production stages:

Front-end inspection enables early detection of contaminants before value is added, whilst also protecting equipment further down the production line – ideal for detecting needles in meat products or fish hooks in seafood for example.

In-process inspection minimizes product waste and enables potential product re-work before further value is added, reducing production costs and product waste.

End of line inspection delivers peace of mind that there is no further risk of foreign body contamination, ensuring only perfect product leaves the production facility.

Whilst ensuring that all products comply with food safety standards, operator safety is equally important.

To protect operators during production and support safe maintenance practices, attention must be paid to every detail of the design of the metal detection system.

This includes shatterproof round-edge guards, safety valves and guarded in-feed and out-feed rollers that remove the risk of finger traps.

Bradley concludes: "Our systems are designed to comply with globally-recognized and accepted electrical and mechanical worker health and safety standards and we produce full risk assessments for every system we supply."



Maintaining a hygienic production line

Meat, poultry and seafood manufacturers have to meet stringent hygiene standards to ensure both food safety and food quality.

The risk of biological contamination in facilities that process animal proteins can be reduced by using equipment designed to support demanding hygiene procedures.

All METTLER TOLEDO Safeline metal detection systems are designed and constructed for operation in harsh environments, with the metal detectors themselves sealed to IP69K and beyond.

Bradley adds however, "The metal detector is only part of the story.

The product handling system is also extremely important and we design bespoke solutions for customers.

Designs often include open angle-iron frame construction, specialist hygienic feet, ultra-hygienic transport belts supplied with sealed edges and welded joints, and belt lifters to allow cleaning to be carried out quickly and more importantly, effectively.

Protecting your brand

Food contamination can have disastrous consequences for manufacturers. Not only by putting consumers in danger, but also by the impact this can have on their brand and reputation.

Manufacturers rely on high performing product inspection equipment to ensure their products are free from contamination and remain consistently safe and of a high quality for consumers.

With METTLER TOLEDO Safeline's Profile Advantage detecting up to 50 percent smaller irregular-shaped metal contaminants than traditional metal detectors, there is only one clear choice for food processing companies in the meat, poultry and seafood industry.

For more information, visit
www.mt.com/md-profileadvantage

METTLER TOLEDO



Ilapak Bags Multiple Line Project Deal With Fox's

Fox's Biscuits, part of the 2 Sisters Food Group, has made a seven figure investment in new flow wrapping, bagging and weighing equipment for its Rocky and Party Rings biscuits, as part of a strategy to drive efficiency by replacing legacy equipment. The project, which includes six Vegatronic 6000 baggers, six Weightronic multi-head weighers, two Eagle flow wrappers and a Delta over-wrapper, consolidates ILAPAK and 2 Sisters' strategic partnership.

Fox's Rocky chocolate biscuit bar brand is a household name in the UK, listed with all the major multiples and enjoying a loyal following of consumers. To keep supermarket shelves fully stocked, the biscuit manufacturer has four lines operating 24/7 at speeds of 600 bars per minute at its factory in Kirkham, Lancashire.

Last year, the company identified a need to replace some of this equipment with new technology that would deliver greater flexibility and higher speeds.

ILAPAK was already one of 2 Sisters Food Group's strategic partners, and had recently helped Fox's Biscuits out of a potentially crippling downtime situation by airfreighting a DSA Eagle flow wrapper from the US when one of the biscuit manufacturer's flow wrappers succumbed.

Therefore, when it came to making further planned investments, ILAPAK's name was high on the list of potential suppliers.

"We try to work with partners who understand the challenges we face with our customers. We have worked with ILAPAK elsewhere within the Group and

like the way they operate as a packaging equipment supplier," says Matt Soden, Category Manager, Equipment and Machinery, at 2 Sisters.

"We'd also been pleased with the performance of the Eagle flow wrapper - there are very few flow wrappers on the market that can be relied upon to deliver the speeds we require."

Smooth flow wrapping solution for Rocky biscuit bars

This time, Fox's was looking for a complete line solution for flow wrapping individual 21g Rocky biscuit bars and then over-wrapping them in packs of eight. ILAPAK proposed a complete line solution comprising its US-built DSA Eagle flow wrapper, feeding into a sweep system for collating the bars and a Delta over-wrapping system.

Engineered for 24/7 production environments and speeds in excess of 1000ppm, the DSA Eagle incorporates features such as automatic splicing and expanded touchscreen diagnostics for efficiency excellence. Heavy duty construction and the design of its feeding system are also key to the flow wrapper's exceptional performance at high speeds.

"ILAPAK's proposal delivered everything the site wanted strategically in an attractive package. It supported us with the challenges we face and met our timescales.

In addition, ILAPAK was flexible enough to revise parts of the project when needed," says Matt.

Flexible multipack production for Party Ring Minis

As well as producing over 10 million Rocky bars every week, Fox's Kirkham factory makes 10 million party rings each week, and Fox's was keen to modernise the packaging process for bagging Party Ring Minis into both individual bags and multipacks.

"We wanted more flexibility in terms of multipack formats and our existing equipment was no longer able to deliver the output we needed," explains Matt. Again, ILAPAK put forward a proposal that Matt says was "commercially right for the business" and supported Fox's "timescales, needs and challenges".

Four Weightronic 16-10 multi-head weighers would feed four Vegatronic 6000 bagmakers with 21g weighments of Party Ring Mini biscuits to create portion sized pillow packs.

These would then be collated and packed into multipacks containing 6 x 21g bag via two Weightronic 14-50 multi-head weighers linked to two further Vegatronic 6000 bagmakers.

The continuous motion Vegatronic 6000 bagger promised Fox's greater versatility as it can produce the full range of vertical bag styles, including pillow, block bottom, Quattro, EasyPack and Doy-style packs.

Thanks to its Ethercat electronic platform and unique jaw profile, the advanced bagger can match the performance of rotary jaw machines on this type of application, achieving speeds of up to 200ppm on small pillow packs.

ILAPAK's ability to offer both flow wrapping and bagging equipment as well as integrated line solutions also had a major bearing on Fox's decision to work with ILAPAK on this project.

"Being able to use a single supplier for all of our flow wrapping, weighing and bagging equipment needs is an attractive proposition for us.

It makes everything easier - from training our operators through to holding spares and carrying out servicing and maintenance.

We also favour single-source full line solutions, as one supplier is responsible for the efficient operation of that line,



and there are no 'ownership' issues," says Matt.

The bagging lines are due to be installed this month and the flow wrapping equipment is scheduled for delivery in June, with FAT (Factory Acceptance Testing) currently underway.

The seven figure project is a sizeable investment for Fox's and aligns with the company's commitment to continuous investment in innovation.

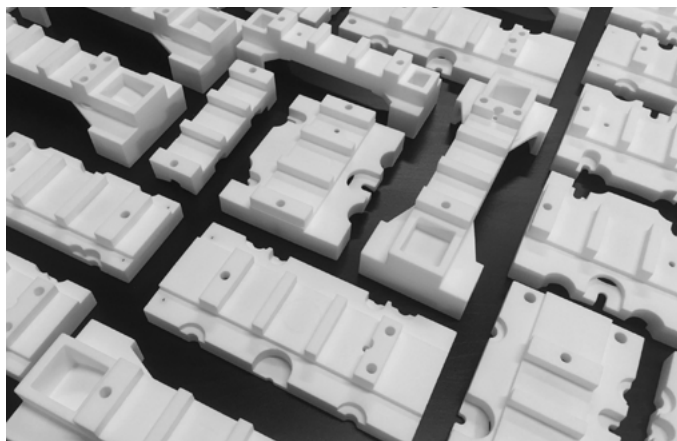
"As a business we are always looking for ways of doing things differently, better and more efficiently, to the benefit of our customers.

We regularly review our fleet of equipment and speak to partners, such as ILAPAK, to keep abreast of innovations that might help us to deliver a better product to our customers," says Matt.

Ilapack

www.ilapack.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."

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A better focus on bitumen tank level

Bitumen is always a difficult product to measure, challenging with high temperatures, build up, splashing, sublimation and ready adhesion. Its handling safety parameters are also very high, with comprehensive safety guidelines from bitumen suppliers' organisations and industry regulators. As part of this, effective, reliable level control for tanks is therefore of paramount importance.

An 80 GHz radar is proving a worthy, proven solution for bitumen storage tank levels at Chase Protective Coatings at Rye, on the South coast of East Sussex. In the spring of 2016 they installed one of the first of a this new generation of radar level sensors in the UK.

It has been in operation ever since, already providing a 'long term' testimony for what is still a relatively new technology. This application also provides a valuable insight to where the difference lies between various radar frequencies.

Chase make coated products for industrial use. For over 70 years they have made a material difference by developing high performance Industrial Coatings, tapes, adhesives and sealants that are marketed under brand names recognized as the most trusted in their respective industries for high reliability applications. Among the product lines produced at the Rye plant are cold applied bitumen tapes for light, medium and heavy duty pipe wrapping, along with other specialist tapes, moulding compounds, grids, marine tapes and PVC pipe wraps.

One of their bitumen storage vessels was not a 'new vessel' by any means, at around 6m high, not particularly tall either. The previous level device on it was another manufacturer's 6Ghz technology radar transmitter. It had never been able to measure the full vessel contents, because a very wide beam angle and some internal plates



meant that it detected too many 'false reflections' for the sensor to deal with. The result was that below a certain point it was impossible to measure the level in the vessel, as the 'echo picture' was too confusing. This caused problems for production planning (how much is left?) and concerns for safety during filling (how much can we put in?). A new solution was sought. They still wanted, ideally, a non contact device that could measure the level all the way down and be easily installed, without contact to the product.

VEGA supplied their latest 80 GHz technology radar sensor: VEGAPULS 64, on a sale or return basis. It was put forward for two main reasons; its performance with build up and its focusing. Build up on sensors when measuring bitumen is always a challenge to overcome, from splashing during filling and the sublimation of tar fumes from heating during storage. The high sensitivity electronics in this latest technology has the benefit that even heavy build up has minimal affect on sensor performance, and it has worked

consistently without requiring cleaning. This long term reliability is just what users are looking for with this kind of product. Radar has an additional benefit, it measures liquid surface level/volume, so its accuracy is not influenced by changing product density either.

Focusing is another great advantage of this VEGAPULS 80 GHz radar, especially when compared to the 6GHz predecessor in this application. Its measuring beam is approximately 10 times better and sharper focused. So, if you compare 2 radars of each technology, both with a 3" antenna: 6GHz would be in the region of 30 degrees ...whereas the 80 GHz is just over 3 degrees! This improved focusing means that the radar signal path between the sensor and liquid surface does not see any interference from vessel walls,

no false signals from rings of build up, or vessel internals.

This focused capability results in non-contact radar devices that are easier and faster to set up, less likely to need tweaks, 'remapping' of false signals in vessels, delivering accuracy and reliability in the long term.

After its trial period ended in mid 2016, the device was purchased. The main benefit to the customer was being able to measure reliably and safely down to the vessel bottom, thus enabling smoother planning of production and effective scheduling of deliveries.

Additionally, this device also has Bluetooth communications, which means at any time it can be remotely and safely



accessed, to check level readings or diagnostics, without climbing the vessel or physically connecting to the sensor. The engineering manager for the site reported he was happy, commenting "We 'haven't had a reading down at that level for years!'"

Web: www.vega.com

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U-Power Introduces New Red-Up High-Rebound Safety Shoe

Italian safety footwear manufacturer U-Power is proud to launch the exclusive Red-Up collection of stylish, high energy-return, work safety shoes.

Innovative technology has enabled the use of High Rebound Elastopan®, a new material from BASF, in the PU intersole of the Red-Up. This pioneering technology ensures a return of over 40% of energy to the wearer over the entire surface of the foot.

Energy is regenerated and given back to the wearer to ensure better performance over time. The high-rebound, affordable, RedUp is also extremely flexible and lightweight, reducing fatigue and improving both posture and productivity.

Perfectly suited to industrial areas, the RedUp shoe comes as ESD, and features Elastopan® memory foam insoles, which take the shape of the foot and improve weight distribution and relieve pressure points, as standard.

Three styles also feature the ground-breaking revolutionary Hypertex Putek® technology, a breathable and water-repellent material that is 20 times more abrasion-resistant than traditional materials.

The Red-Up range of 25 different styles boasts all the high-quality protective and safety features that come with a U-Power product, offering excellent shock absorption, an aluminium safety toe cap and a non-metal pierce-resistant

midsole. In addition, the Red-Up's slip-resistance far exceeds the requirements of the European Standards.

U-Power's Managing Director, Stuart Thorne, said: "The blend of softness, comfort, lightness, breathability and protection of the Red-Up shoe, plus the return of so much energy to the wearer, ensures a feeling of total wellbeing. Tiredness and fatigue are diminished, posture is improved, and productivity in the workplace boosted."

For more information,
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How to prioritise food safety within the confines of strict regulation

There's no greater priority in the food and beverage industry than food safety. With the average significant product recall claim currently standing at around £9Million, without counting the associated brand damage, it's clear to see the damage caused by breaching food safety regulations. Reducing machine downtime and maximising factory output and limiting environmental impact are high priorities, and it's a challenge to prioritise all three areas without having to make compromises. Here's how you can succeed in all three areas.

Reduce potential for bacteria growth

To effectively prioritise food safety, potential for bacteria growth needs to be minimised. Bacteria thrive in moist environments, making production lines an ideal breeding ground and high pressure washdowns can spread bacteria causing further contamination. If bearings aren't effectively sealed, bacteria can enter and multiply within it.

Easy-clean, allergen-free industry certified machine components, incorporating smooth surfaces and angled edges promote self-draining, allowing bacteria to be washed away.

Increase production uptime

Eliminating all downtime is virtually impossible, however, aiming for only planned downtime to perform proactive maintenance is achievable. Ensure components are fit-for-purpose and not overloaded - a good distributor will work with you to check component suitability. Remember, a reduced initial outlay may be tempting, but consider the cost of downtime in the event of failure.

Maintenance-free components such as SKF's Food Line bearings are an excellent option, as they don't require regular downtime for routine maintenance.



Eliminate relubrication requirements

Optimal lubrication maximises component life by reducing friction and protecting against contamination and corrosion. However, grease often leaks from components during washdowns or due to seal damage, creating food hygiene issues. To prevent serious contamination, food-grade lubrication should be used. However, even when using these lubricants, it's important to prevent lubricant leakage.

Relubrication-free bearings are an effective way of reducing leakages and maintenance by eliminating potential seal damage due to over-greasing.

By removing relubrication, food safety is improved, maintenance is minimised and costs are reduced.

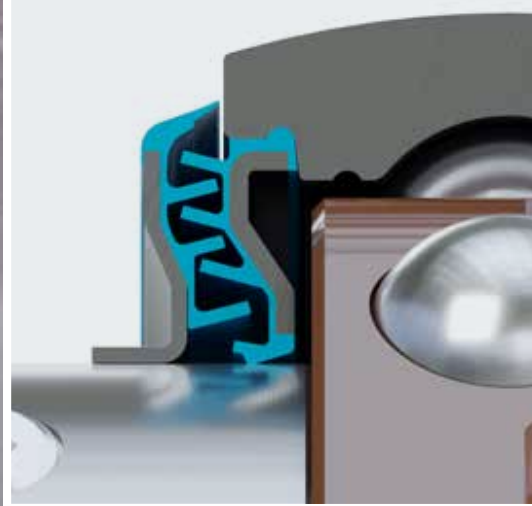
The chance of machine breakdown is also reduced, as 36% of premature bearing failures are due to poor lubrication practices.

Increase sustainability

How can sustainability be effectively prioritised without compromising on food safety, profits and production?

Firstly, limit your grease usage by using relubrication free bearings. Lubricant production has a huge environmental impact, and waste lubricant disposal causes water pollution. Choosing high-quality sustainably manufactured components will reduce the number of components manufactured and create less landfill waste.

Acorn Industrial Services Ltd,
www.acorn-ind.co.uk/skf



Rethinking food safety

SKF Food Line ball bearing units - Blue Range: Proactive food safety

For food producers, hygiene and proactive food safety take top priority in asset design. However, bearings can be a potential source of serious food contamination.

SKF, with microbiology experts from RISE (Research Institutes of Sweden), have discovered that bacterial contamination can build up inside bearing units during operation, and even during hygienic cleaning.

If bacteria can get in, they can also get out! The answer is a hygienically-designed, fully sealed bearing unit.

The new SKF Food Line ball bearing units - Blue Range is a relubrication-free solution that supports your proactive food safety processes. Sealed from both sides and filled with allergen-free grease, they allow you to actively reduce food safety risks by combining hygienic design, relubrication-free technology, corrosion resistance and food grade components. Coming from SKF, they also provide outstanding bearing performance!



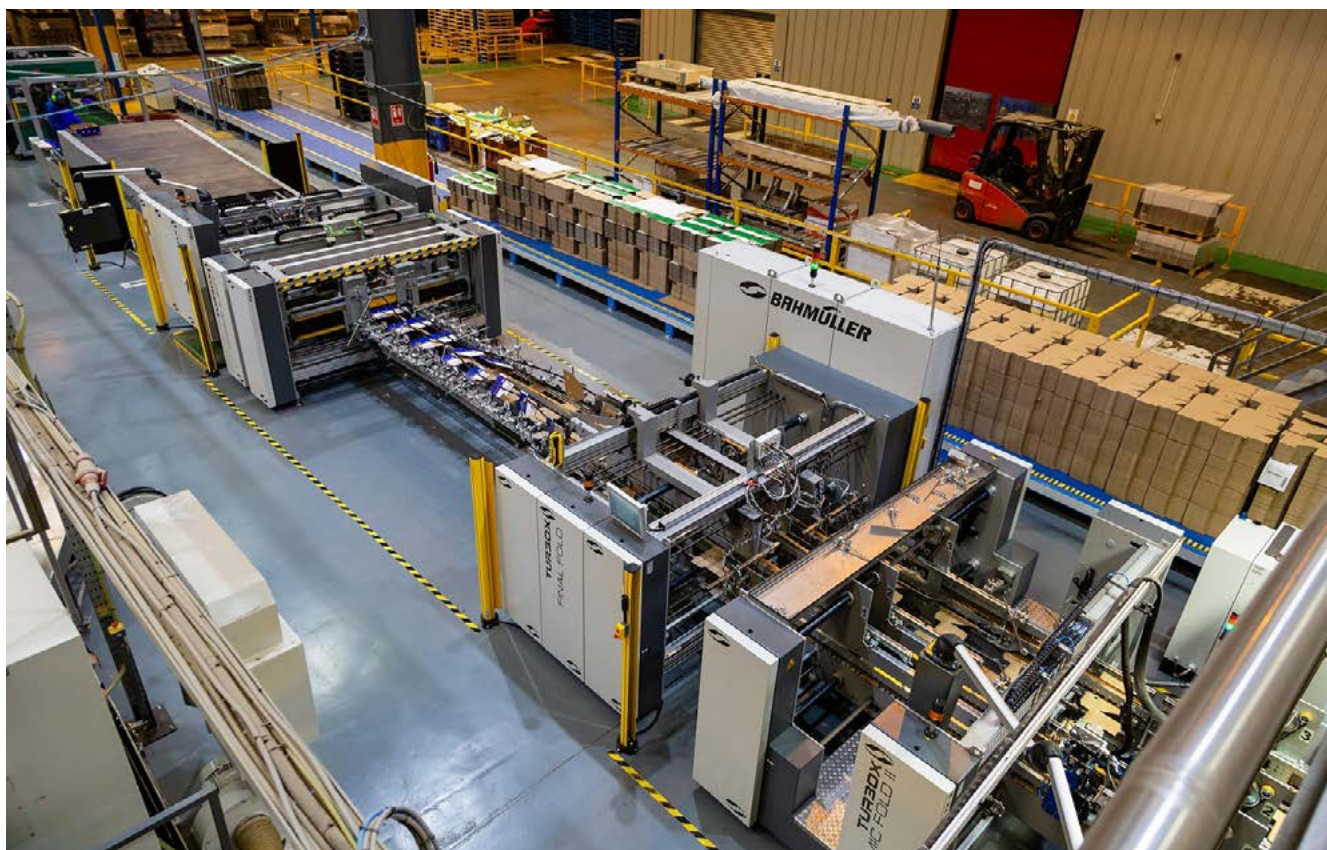
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Rigid meets growing demand for sustainable corrugated packaging with continued investment at its Wellington site

Following a £4 million investment programme at its Wellington site in the South west of England, Rigid Containers has now installed a new Bahmüller TURBOX Folder Gluer to enable the company to continue deliver the highest quality corrugated box solutions for its customers.

The TURBOX BTX2300 with Mini fold device is one of the most technically advanced folder gluer lines in Europe and joins the recently-installed Bobst DRO six colour rotary die-cutter and BP Agnati Quantum corrugator to provide an advanced state-of-the-art operation.

Designed to handle a complete range of box sizes from just 225x125mm (l x w) the TURBOX features a modular design with short setup times and high running speeds for maximum throughput.

"Having recently invested in both a new corrugator and 6-colour printer at

Wellington, ensuring we had the latest box making capability was the next logical step," says Julian Freeman, Group Sales & Marketing Director. "With the focus increasingly on sustainable packaging solutions we have seen increasing demand for corrugated boxes. These high-specification machines will ensure we can respond quickly to customer and market requirements."

Advanced features including Diagonal Fold Supervision enable the TURBOX to carry out supervision of the folding process on the fly, the machine is also fitted with the HHS glue detections system which will automatically detect any missed glued product on the run. All detected boxes are removed from the production by the patented Unique Eject.

Further the machine has the ability to form crash-lock and 4-corner boxes without the need for conventional folding hooks. This provides optimal handling

and performance even with difficult box styles.

Process control is ensured through the unique BOXFLOW® Control, a graphical user interface (GUI) between the operator and machine that enables all machine adjustments and data access to be more easily controlled. The GUI display allows entry of key data for setup of variable or special designs, and based on the data received, the system automatically calculates the basic machine and glue settings for each application.

"This latest investment ensures we can deliver the reduction in lead-times and quality of corrugated packaging that all our customers are seeking," concludes Freeman.

Rigid

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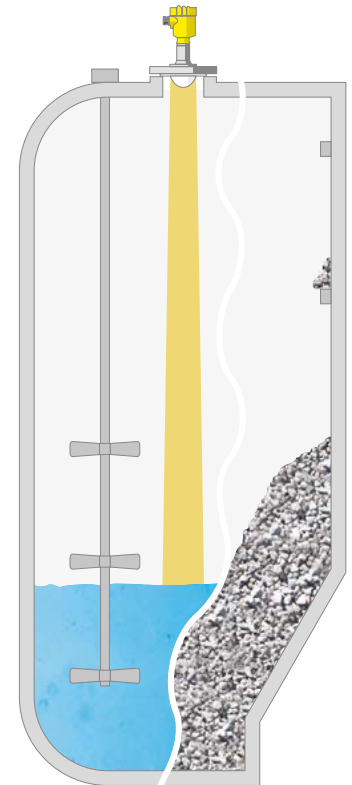
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Proseal to be acquired by US corporation in £220m deal

Proseal - a leading provider of tray sealing technology to the food industry - is to be acquired by Chicago-based JBT Corporation.

JBT, which is listed on the New York Stock Exchange, has signed a definitive agreement to acquire the company for a purchase price of approximately £220m, subject to regulatory approvals. The deal will allow Proseal to further expand its business by providing access to JBT's global sales and service network. Closing is expected in the second quarter of 2019. Dow Schofield Watts Corporate Finance and Spinnaker Corporate Finance advised on the deal.

Established in 1998, Proseal now employs 350 staff in Adlington, Cheshire, with additional facilities in Richmond, Virginia and Melbourne, Australia, and supplies high-quality tray-sealing machines to markets worldwide.

Under the terms of the deal, the management team which is led by the founders - Steve Malone and Robert

Hargreaves - will remain in place and the Proseal brand will also be retained.

Commenting on the deal, Steve Malone stated: "We are delighted to announce that Proseal is to become part of JBT, which will significantly enhance our global presence. This deal will ensure Proseal's continued growth and success through access to JBT's global sales and service network, enhancing our customer support overseas as well as growing our business into new markets."

"The acquisition of Proseal represents an important expansion of JBT's capabilities, adding significantly to our end-of-line market position and advancing our strategy of providing full-line customer solutions," stated Tom Giacomini, JBT's Chairman, President, and Chief Executive Officer.

"Moreover, we believe Proseal's technology affords growth opportunities around the globe."

"Tray sealing is relevant to many of our FoodTech customers, particularly in the



rapidly expanding market for convenience foods," said Carlos Fernandez, JBT's Executive Vice President and President, Liquid Foods.

The shareholders of Proseal were advised in a joint mandate by Philip Price, Gerard Lucas and Callum Sellar of Dow Schofield Watts and Dave Wilson at Spinnaker Corporate Finance. Legal advisors to Proseal were Addleshaw Goddard led by Paul Medicott, Joanne Cooper, Mark Guttridge and Farah Aslam.

Proseal

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Linx Builds North American Distribution For Its Range Of Coding And Marking Printers

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"We try to work with partners who understand the challenges we face with our customers. We have worked with ILAPAK elsewhere within the Group and

like the way they operate as a packaging equipment supplier," says Matt Soden, Category Manager, Equipment and Machinery, at 2 Sisters.

"We'd also been pleased with the performance of the Eagle flow wrapper - there are very few flow wrappers on the market that can be relied upon to deliver the speeds we require."

Smooth flow wrapping solution for Rocky biscuit bars

This time, Fox's was looking for a complete line solution for flow wrapping individual 21g Rocky biscuit bars and then over-wrapping them in packs of eight. ILAPAK proposed a complete line solution comprising its US-built DSA Eagle flow wrapper, feeding into a sweep system for collating the bars and a Delta over-wrapping system.

Coding and marking specialist Linx Printing Technologies has appointed a number of new channel partners in North America to expand support for its product portfolio.

Diagraph, Linx's long-term exclusive channel partner for Linx's continuous ink jet products in the US and Mexico, will continue to focus on that industry leading platform, while the new partners help to expand into other product offerings and support for the US market.

Five new distributors have been announced in the US, including Technopack Corporation, Florida, Colorado Scale Center, Colorado and Tourmaline Enterprises Inc, AWLSS Inc., and F.J. Smith Sales Co. in California.

As well as providing greater geographical coverage in this important territory, the new distributors offer expertise across a wide variety of market sectors and will help deliver the support and service end-

user customers demand from their coding and marking printer suppliers.

"We are expanding our product range in North America and entering new markets by engaging additional channel partners to sell our Linx 10, Laser and Thermal Transfer printers," explains Greg Treanor, Regional Sales Manager North America.

Linx's range of Laser and Thermal Transfer printers, along with the Linx 10 Continuous Ink Jet printer, will be available through the new distributors, meeting the demands for professional coding and marking across both low and high-volume producers. From the Linx 10 for smaller businesses with its highly compact footprint, easy to use interface and proven technology, through to Linx's laser coding and marking machines delivering high print volumes and permanent traceability with no consumable costs, Linx products provide solutions for many different coding and marking requirements.



"We are committed to offering our customers the highest levels of support to ensure they can maximize the benefits of our class-leading coding solutions," explains Greg. "We are delighted to welcome our new partners and we are sure that their experience in coding and marking and their ability to provide a fast and effective service, will mean we are ideally placed to grow Linx's presence across North America."

Linx Printing Technologies

www.linxglobal.com





Varioline Enclosure Lamp: More Light and Variability

STEGO introduces the new LED Varioline, the most effective LED enclosure lamp within the STEGO product range so far. Its powerful and homogeneous lighting ensure natural vision and confusion-free color reproduction which are key to user safety in enclosures. Versions with an optional integrated socket provide for additional application options.

The Varioline LED enclosure lamp from STEGO combines bright lighting with compact dimensions. Available in two versions with sizes from 400 to 700 mm, it provides more than 1,000 Lm / 1,700 Lm at a moderate power consumption of 11 W / 16 W. Even large control cabinets are thoroughly illuminated in their depth and height. Its translucent and thus glare-free rotatable light tube is equipped with bright mid-power LEDs. With a beam angle of 120° these enable homogeneous illumination within control cabinets and enclosures. Specially selected LEDs provide for a long service

life of 60,000 hours, which make the Varioline virtually maintenance-free. The Varioline emits tried-and-tested 6,500 K coloured daylight, so users benefit from natural vision conditions and confusion-free colour rendition.

All Varioline's variability comes into play, when in addition to excellent lighting extra electrical devices need to be operated. For example, the Varioline LED 121/122 offers an integrated socket for the power connection of laptops or diagnostic devices. Numerous European and international plug types, such as e.g. the US and Australia, are available.

The LED Varioline also features versatile switching options. On-off switch, motion detector or connection for an external door contact switch allow for adaption to the requirements of each individual application. Screw or magnet fixing are available as mounting options and offer flexible and vibration-proof installation. Daisy chaining makes it easy to configure

more extensive lighting situations. Up to eight lamps can be connected serially.

STEGO - Perfect Thermal Management

Since it was founded in 1980, STEGO Elektrotechnik in Schwaebisch Hall, Germany, has been developing, producing and selling an ever-growing range of products for the protection of electric and electronic components. All STEGO products for cabinets and enclosures – heaters, fan heaters, filter fans, LED-lamps, thermostats, hygrometers and accessories – are aimed at reaching optimum climatic conditions in the most varied environments, ensuring that all sensitive components work reliably at all times. STEGO is now represented at 12 locations and by more than 200 sales partners worldwide.

www.stego.co.uk



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High-speed synchronised motion and machine control for Industry 4.0 and IIoT

JVL announce EtherCAT® CiA402 drive profile for integrated servo and stepper motor range

Recently announced by JVL Industri Elektronik A/S, and available in the UK with full support from Mclennan, the Danish motion controls designer and manufacturer has enhanced its range of Industrial Ethernet (IE) motion control modules to include the CiA402 drive profile for its EtherCAT protocol option. This brings support for EtherCAT synchronized position (CSP) and synchronized velocity (CSV) modes which means millisecond-level motion and machine synchronisation capability with extremely low jitter for demanding high-speed automation tasks.

With the real benefit of straightforward installation directly on the machine with minimum wiring and reduced hardware, the EtherCAT module is available across JVL's integrated stepper and integrated servomotor offerings that combine motor, drive, and optional feedback plus motion controllers with opto-isolated digital I/Os as single housed packages. JVL's MAC motor® integrated brushless servo motors are available for motor power to 13.5 kW peak, and its ServoStep integrated stepper motors cover torques to 25 Nm. The comprehensive range covers direct-on-line and DC powered variants and various protection ratings including IP55 to IP66, and stainless steel IP67 versions that perfectly suit demanding environment applications for food and medical industries.

Aimed firmly at demanding Industry 4.0 automation applications, JVL's EtherCAT module features two Ethernet connectors for line or ring topology daisy-chaining of multiple axes whilst LEDs offer a convenient status overview. Industry standard M12 connectors offer durable interfacing for harsh industrial environments.



Configuration is straightforward with JVL's MacTalk PC application software via a mini PLC with a graphical programming environment that also includes a wide range of motion control and machine I/O interaction functions. Furthermore, JVL EtherCAT integrated motors are plug and play compatible with Beckhoff PLC's and compatible with other EtherCAT-Master manufacturers such as Trio Motion who is also a distribution partner for Mclennan. For the JVL MAC motor, all registers are accessible via the EtherCAT interface enabling complete control of motor configuration, on board I/O and motion.

The EtherCAT CiA402 drive profile for JVL servo and stepper motors support the cyclic synchronised position (CSP) and cyclic synchronised velocity (CSV) modes as well as the older modes such as profile position, profile velocity and many homing methods. Synchronised cycle values for the integrated stepper can be set for 1, 2, 3 or 4 milliseconds whilst the MAC Integrated Servomotor

offer 1 and 2 millisecond cycle periods. Both have a maximum jitter value of +/- 1 microsecond.

JVL also offers many other Industrial Ethernet protocols including EtherNet/IP, Profinet IO, EtherNet Powerlink, and Modbus. Other fieldbus protocols such as CANopen, DeviceNet, and Profibus are also available.

Mclennan has represented JVL in the UK for over five years and also enjoys distribution partnerships with other selected motion control component and systems manufacturers. With its own comprehensive design and build service available, Mclennan provides stepper and servo motor based automation solutions from single components to complete mechatronic assemblies.

Mclennan

www.mclennan.co.uk

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Food Storage Monitoring Made Easy with FilesThruTheAir

Temperature monitoring specialist FilesThruTheAir's range of WiFi-connected temperature and humidity loggers revolutionises food storage monitoring through its easy-setup, remote Cloud access and automated email alert system.

Whether it's frozen, refrigerated or dry foods, monitoring the temperature and humidity of your storage facilities can be vital in ensuring industry standards are upheld. According to HACCP guidelines, it is essential to keep and maintain records of adherence to food storage legislation and record any breaches that may have occurred.

Why not handle this all in one place with the online EasyLog Cloud platform?

FilesThruTheAir's WiFi Data Logging ranges (EL-MOTE and EL-WiFi) work with the EasyLog Cloud to monitor temperature and relative humidity in a wide range of applications, including the storage of frozen, refrigerated and dry foods.

The EasyLog Cloud is an online platform giving you the ability to monitor and manage any number of wireless data loggers in different locations completely remotely.

With the Cloud, you can view, analyse and export data from your devices anytime, from anywhere. Why visit your facilities at inconvenient times when you can view data in real time remotely, set up periodical summary reports, as well as receiving email alerts if any pre-set temperature zones are breached right from your PC, tablet or smartphone?

FilesThruTheAir has two Cloud-enabled, WiFi-connected data logger ranges: EL-MOTE and EL-WiFi.

The EL-MOTE range offers a discrete, screen-less logger with local visual and audible alarm able to measure temperature and humidity.



It's two-year battery life and water resistant exterior makes it ideal for use in a wide variety of indoor and outdoor applications.

The EL-WiFi range consists of a small device with a 45 x 45mm LCD screen to display live data while also recording information and uploading it to the Cloud at a frequency chosen by you. The device has a rechargeable battery of around six months from one charge.

Both ranges come with a wide variety of hardware options including ambient temperature devices, probe attachments and thermocouple probes for extended range temperature monitoring.

The EL-WiFi range is also available in a 21CFR option which works with the 21CFR FilesThruTheAir Cloud to include full system audit and secure sign-off by a pre-set authorised login to adhere to 21CFR Part 11 compliance.

All of these FilesThruTheAir WiFi ranges are already being used to simplify and streamline the safe storage of food in a variety of businesses. Their products are currently being used in monitoring the storage of ice lollies, cheese, seafood, and pub ingredients.

"They save me having to attend the premises when the factory is closed just to check temperatures." – Venture Seafoods, where the EL-WiFi-TP is monitoring both seafood storage chillers and freezers. "I researched many loggers and companies, and I couldn't find a better option than FilesThruTheAir and the EL-MOTE." – LICKALIX Ice Lollies, where the EL-MOTE-TP and DTP monitor their freezer storage externally using a probe.

"Using the EL-WiFi Temperature and humidity sensors saves our chef time every day as he doesn't have to stop what he's doing to do his fridge and freezer temperature checks every few hours." The Royal Oak, where the EL-WIFI-TP and EL-WIFI-TH have been monitoring the temperature and humidity of their dry store, refrigerator and frozen storage facilities.

To find out more about how FilesThruTheAir data loggers can optimise your food business, visit our website or contact the FilesThruTheAir team directly to discuss the options.

Web: www.filesthrutheair.com

Tel: +44 (0)1425 651111

Email: sales@filesthrutheair.com





Brexit delay makes TCS&D Show the ideal showcase for cold storage solutions

With the March deadline having passed without a solution for Brexit being agreed, the organisers of the forthcoming TCS&D Show believe the exhibition will provide the perfect platform for reviewing the latest products and services for the temperature-controlled storage and distribution sector.

Some exhibitors are reporting a spike in demand for cold storage solutions. "We've seen significant growth in our contract wins for cold stores recently," said Martin Taylor, Estimating Manager at ISD Solutions, the UK's leading contractor

in cold store construction, "and while it's impossible to say categorically that this is a result of Brexit, we are fairly confident that is the case. We are seeing opportunities for distribution centres and food warehouses," he continued, "as businesses either look to store more product in the UK in case of a no-deal Brexit, or gear up to bring food manufacturing facilities home to produce goods for UK consumption." Other exhibitors point to delays in investment due to Brexit. "Many companies were, of course, waiting until March before they invested,"

commented Trevor Grant, Sales Manager (Solutions) for the fire prevention and detection specialist, Wagner UK. "With the additional delays, it means many projects move back yet again." The show's organisers believe this makes the timing of TCS&D 2019 ideal for those seeking solutions to invest in once Brexit is settled.

Diverse range of exhibits

Visitors interested in solutions for cold storage will discover a wide range of products and services being showcased at TCS&D, which takes place on the

25th and 26th June at Peterborough's East of England Arena. Exhibitors include cold store constructors 1Cold, ISD Solutions and Carter Thermal Industries; handling system integrator, SSI Schäfer; refrigeration engineers, Star Refrigeration; rapid-action freezer door manufacturers, SAFE-door Industries, Assa Abloy and Giesse UK; portable cold store supplier, Cold Store Rentals; cold store door specialist, Bluseal; industrial door and dock equipment supplier, Easilift Loading Systems; fork-lift suppliers, Combilift, Toyota Material Handling and UniCarriers; cold store workwear specialists, FlexiTog, Goldfreeze and Fortdress; HVAC system supplier, Jet Environmental; packaging specialist, Samuel Grant Packaging; temperature monitoring and reporting suppliers, Smashtag and Tek Troniks; and mobile computing provider, TouchStar Technologies. Exhibitors also include a large number of refrigerated transport manufacturers, distribution service providers and vehicle solutions suppliers, featuring – among others – brands such as Carrier Transicold, Paneltex, GAH Refrigeration, Prohire, MAN, Gray

& Adams, Isuzu Truck UK, Truck Craft Bodies, Seven Telematics, Petit Forestier, Hultsteins, Chiltern Distribution, Marshall Fleet Solutions, Solomon Commercials, Lineage Logistics and VMS Fleet Management. The 2019 Exhibitor List is now LIVE at www.tcsdshow.com.

Free conference programme

The UK's only dedicated event for cold storage and distribution, the TCS&D Show (@TCSdShow) will not only showcase the sector's latest innovations, but will also feature a comprehensive programme of free-to-attend seminars, featuring up to 40 speakers across four 'hubs' over the two days. The bi-annual show is also co-located with the annual TCS&D Awards (@TCSdAwards) and Gala Dinner, which will take place on the evening of the first day of the show.

Rewarding visitor experience

This year's exhibition features a number of new opportunities for visitors. "Our aim is to make a visit to TCS&D as rewarding an experience as possible," said Martyn Cogan, Exhibition Director, "so that visitors feel confident about investing

their time and come away with a huge amount of information and insight." New features include a 'Ride & Drive Experience' track in the outside display area, an indoor demonstration area to showcase the latest cold store handling equipment and a 'concierge' service to help visitors find the right exhibitors to meet their particular needs. The show will also be the focus for the UK's celebration of the inaugural World Refrigeration Day (WRD), which coincides with the second day of TCS&D 2019. In the show's WRD Village, the Institute of Refrigeration (IOR) and the Air Conditioning and Refrigeration Industry Board (ACRIB) will host a series of workshops and will also live-stream selected seminars to an international audience.

Visitors are encouraged to register to facilitate entry to the show and to follow TCS&D 2019 on Twitter using #TCSD19. For more details on the TCS&D Exhibition & Conference, visit tcsdshow.com and for information on the TCS&D Awards Dinner, visit www.tcsdawards.com.

COLD STORAGE.. THINK TCS&D 2019



www.tcsdshow.com

 #TCSD19

TCS&D SHOW

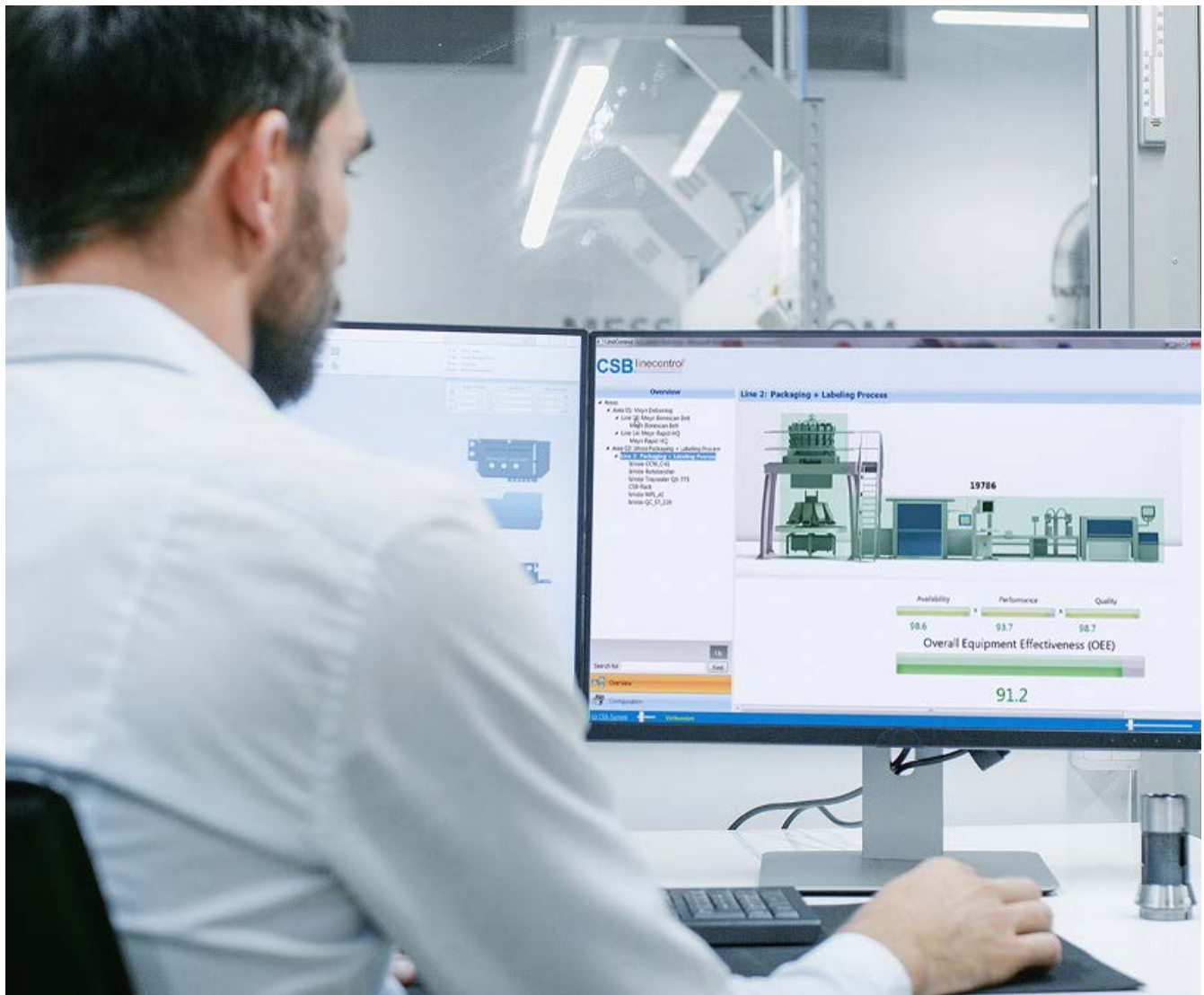
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The Smart Food Factory Is Closer Than You Think

Food manufacturers can gain real competitive advantage through the implementation of digitisation and the establishment of a smart food factory – and the means to achieve this are easier than companies realise with many of the technologies needed already in existence.

This was the key message of a presentation by Mathew Simpson of food and drink IT specialist CSB-System at the recent seminar Digital Technologies for Improving Productivity in Food Manufacturing, organised by the Centre for SMART (Sustainable Manufacturing and Recycling Technologies) and the Internet of Food Things Network Plus (IoFT).

Mr Simpson outlined how in a smart food factory information is able to flow up and down the supply chain much faster, with a company's ERP system acting as the central nervous system.

This means the shop floor and senior management are fully connected and transactions between the consumer, the retailer and the producer are more easily managed.

For example, orders placed via a smartphone can be directly received into the manufacturer's or retailer's ERP system and production demand can be generated before retailer stock is fully consumed.

Manufacturers are able to remotely control and monitor their production lines, including individual machine's service requirements, and finished goods can be automatically booked and entered into the ERP system.

Full connectivity and automation bring greater efficiencies and consistency and help to ensure supply is more accurately matched to demand.

Companies' existing systems and equipment can be utilised in the move to the smart factory, explained Mr Simpson.

The use of EDI for sales order entry will significantly reduce manual entry and keying errors, while weighing systems and scales can be connected to the ERP system to directly confirm and record weights.

Similarly, automatic temperature loggers will capture data directly into the system, and vision and inspection systems can distinguish between good and bad products for immediate action to be taken.

While many food manufacturers consider digitisation will have a huge role to play in the future of the food sector, CSB's most recent industry survey found that the majority still see a number of hurdles that need to be overcome in order to maximise the opportunity.



Working with a suitable IT partner is one way to overcome this, said Mr Simpson, and he outlined several projects undertaken by CSB that had delivered tangible benefits to its customers.

Based at the University of Loughborough, the Centre for SMART was established in 2004 to develop new strategies, methodologies and supportive technologies to deal with challenges in sustainable production and consumption.

The IoFT was created by the Engineering and Sciences Research Council to support and promote research activity relating to food production and manufacturing in the UK.

This latest seminar was devised to provide attendees with the opportunity to learn from companies and technology providers on best practices to successfully implement current digital technologies in food manufacturing, and to discuss policy and regulatory changes to the uptake of such technologies within the UK food sector.

A resulting briefing document, based on thoughts brought forward during facilitated discussions conducted throughout the day, will be published and disseminated in June.

CSB System

www.csb.com



Waste Minimisation Initiatives for the Food & Drink Processing and Packaging Industry

Established in 1987, Kenburn Waste Management has over thirty years' experience within the waste management industry, providing cost effective and environmentally friendly waste minimisation solutions for the food, drink and packaging industry.

During this time, we've built up an impressive portfolio of clients, from world famous department stores to some of the largest food processing plants in the country. This has enabled us to become one of the UK's market leaders for waste management advice within the food and food packaging industry.

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you reduce your ever increasing waste management costs.

By not providing a waste collections service, we are free to offer you completely impartial advice on the most efficient methods of waste management and you are free to negotiate the best price with your recycler for your waste materials.

We supply a range of quality equipment that will suit most needs and because we've been in the industry for so many years we are able to offer both new and refurbished equipment. All machines we supply come with at least a 12 month warranty, whether new or refurbished.

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FDA-compliant PU seal for direct contact with food – the international standard for food packaging

The polyurethane (PU) foam seal from Sonderhoff in the FERMAPOR® K31 product range received sought-after American FDA conformity. It is considered to be the recognised standard for food packaging worldwide. The FERMAPOR® K31 seal is applied automatically, precisely and seamlessly in the lid groove of drums and hobbicks using the Formed In-Place Foam Gasket process. The PU seal is also approved for direct contact with food in accordance with the EU Regulation No. 10/2011 which entered into force on 1 January 2016.

The FERMAPOR® K31 polyurethane foam with FDA conformity is used as a seamless lid seal for food containers with a filling volume from two litres. It is suitable for use in direct contact with aqueous, acid, alcoholic, fatty and dry raw food materials. This also applies for cold or hot filled or pasteurised milk and for milk products. The right ratio of the contact surface of the seal surface to the filling volume must be adhered to here.

- In accordance with Regulation (EU) No. 10/2011 (formerly EC No. 1935/2004):
Contact surface max. 100 cm²/5600 cm³ (30 kg contents) for aqueous, acid, alcoholic, fatty and dry foods as well as milk and milk products
- In accordance with the U.S. Food and Drug Administration (FDA):
 - Contact surface max. 35 mm²/dm³ for all foods,
 - Contact surface max. 93 mm²/dm³ for fat free foods

The FDA-compliant FERMAPOR® K31 foam seal for food packaging is characterised by excellent migration behaviour for the seal material used in the formula.

Experts from independent testing institutions certify that the values

determined for total migration in the seal material are below the threshold value in the EU Regulation No. 10/2011 of 10 mg/dm². The odour and flavour as well as the appearance and consistency of the food contained in the lidded drums are not changed as a result.

Optimal characteristics profile for the FDA-compliant PU seal

“With the FDA conformity of our food-safe seal in the FERMAPOR® K31 range, we are able to offer our customers in the food packaging industry around the world the price and technical advantages of a PU foam seal for the first time,” says Peter Fischer, Head of Marketing at Sonderhoff. The polyurethane-based FERMAPOR® K31 lid seal with FDA conformity is characterised by low water absorption, optimal adhesion to plastic and metal, and outstanding long-term behaviour of the seal effect. The foam seal in the lid groove is compressed when the packaging container is closed and returns almost entirely to normal. The tightness of the lid seal thus remains intact. Through consistent further development of the mechanical properties, Sonderhoff has specifically improved the tear resistance and elongation at break of the FDA-compliant foam seal. Container lids sealed with the food-safe foam from Sonderhoff remain tight even with drops, shocks and vibrations. Sonderhoff produces other PU foam seals which, as a whole with the containers, meet the sealing requirements for drop tests certified packaging with UN approval.



Fully automated seal insertion using the FIPFG process

The fully automated application process using FIPFG sealing technology is very economical and efficient, particularly for medium-sized and large production runs. The high process reliability of the Sonderhoff dispensing machines ensures quick, precise and clean insertion of material into the lid groove. The polyurethane-based, FDA-compliant FERMAPOR® K31 food-safe foam cures at room temperature to form a flexible foam seal. Investments in tempering ovens are not required and an additional production step is thus eliminated.

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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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Motor gearbox drive 0.12 kw
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Monitoring 100% of containers continuously for closure-integrity and internal vacuum, or pressure, conditions at variable line speeds from 10 cpm up to 2000 cpm our ADR Inspection Systems detects a range of defective conditions in metal, glass and plastic containers.



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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.

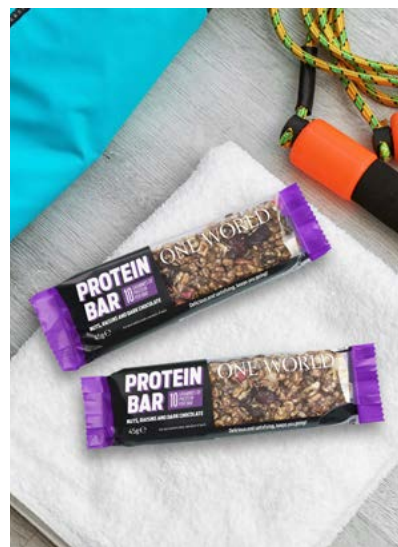
Strata SL has performed exactly as we expected, proving excellent machinability and printability.

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

Vision2000: Now With Laser Detection Capabilities

ILAPAK has upgraded its successful Vision2000 vision and counting platform with new laser height detection capabilities and design features that allow easier access for maintenance.

The Vision2000 uses advanced line scan camera technology to count and feed baked goods into the infeed of a VFFS machine at high speed. The system can also be supplied with a quality control module - an option that is proving increasingly popular with ILAPAK's bakery industry customers.

This module uses a powerful camera to screen the product flow for deformed or damaged products such as bent and broken baguettes by performing surface and length/width checks.

And now, ILAPAK has further advanced the Vision2000's quality control capabilities, introducing integrated laser height detection as an option.

"We are seeing increasing interest from our bakery industry customers in harnessing vision technology for quality control as they see that the benefits stretch beyond identifying out-of-spec product. Laser height detection, for example, acts as a quality control tool for upstream production, highlighting issues with products rising either too much or not enough, and has the potential to increase overall line efficiency by removing from the flow too-high products that could cause jams," says Björn Brandt, product manager, counting and feeding solutions, at ILAPAK.

If required, the system can be equipped with an integrated metal detector, which can share a retractable reject system with the quality control module.

Key to the flexibility of the belt-based system is a powerful line scan camera, which can capture up to 2,000 images per second.



An optional quality control module for the Vision2000 uses a camera to screen the product flow for deformed or damaged products such as bent and broken baguettes by performing surface and length/width checks

The images are overlaid to produce a 'real time' picture of the product flow, and intelligent software processes this image to calculate when the target number per pack has been reached. Batches are separated via pneumatically controlled 'fingers'.

Whilst there are competing systems on the marketplace, ILAPAK's vision counter boasts the one of the fastest available camera technology and a unique emphasis on hygiene and accessibility. Besides offering unrivalled build quality and cleanability via the use of stainless steel and superior grade plastics, the latest generation Vision2000 is equipped with transparent sliding safety doors to facilitate access for cleaning and maintenance.

The Vision2000 offers complete flexibility in terms of product type, shape and size. It can accommodate fresh, par-baked, frozen and difficult-to-handle raw dough products, whether baguettes, pretzel sticks, rolls, bagels, donuts or croissants.

The upgraded Vision2000 will make its debut at IBA, where it will be shown together with the Vegatronic 2000 Open Frame (OF) as part of a complete bagging line for bread rolls – demonstrating ILAPAK's expertise in configuring full line solutions for bakeries.

VT2000 OF: open frame accessibility

Bakery industry customers love the Vegatronic 2000 OF vertical bag maker, as its innovative open frame design translates to easy accessibility for fast servicing, maintenance and cleaning.

Full stainless steel construction with specially treated aluminium parts enables this rugged bagger to withstand even the most aggressive cleaning regimes.

For bakeries that are looking for a high level of flexibility from their bagmaker, the VT2000 OF is ideal. It is capable of switching between heat sealing films and LDPE and between pillow packs and stand-up pouches with easy and tool-free changeovers, and even features a built-in product catching plate on the forming tube to protect wrapping materials from sharp-edged frozen products.

Available in continuous or intermittent motion versions, the VT2000 OF can be built in a vertical configuration or with up to 55° angled transfer to minimise the risk of damage to fragile IQF rolls.

Ilapak

www.ilapak.co.uk

Our range of quality cam locking couplings from own production are guaranteed to EN 14420-7, reliable, leak-proof, durable and offer better product properties than most Cam and Groove Couplings you will find on the market:

- Wall thickness and tolerances to standard
- Material specification to standard (stainless steel, aluminium, brass)
- Machined inner surfaces < Ra 1,6
- Ergonomic, contour shaped levers, optimised lever geometry for improved coupling safety
- PN 16 bar for all materials, (DN 10: 10 bar)
- Manufacturer's liability: clear Elaflex and batch marking for traceability
- Inspection test certificates EN 10204 - 3.1 available on request
- Easy attachment with standardised hook spanner



 More information:
elaflex.de/en/camlock

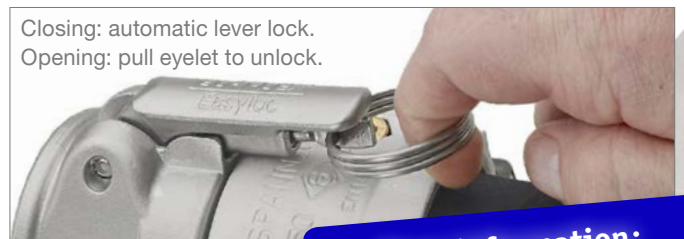
New Quality of Cam Locking Couplings (**'Camlock'**)

The product range is available from DN 19 to DN 100, depending on the type of material: stainless steel (also with PFA coating) brass or aluminium. Available with integrated hose tail, as threaded version or weld-on type.

Safe, Easy ... EASYLOC®

Camlock female couplers are now also available in 'EASYLOC' version with automatic lever lock. Unwanted opening of the levers and disconnection during operation, e. g. due to excessive vibration, pulsation or accidental disengagement due to operator error is safely prevented. The operation is easy and self-explanatory. 'EASYLOC' cam locking couplers are made of stainless steel and can be ordered in the sizes from DN 19 until DN 50.

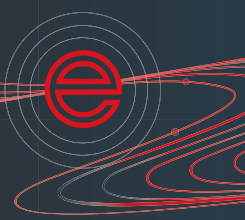
Closing: automatic lever lock.
Opening: pull eyelet to unlock.



 More information:
elaflex.de/en/easyloc



It's not just the milk that's been skimmed



Induction cap sealing creates a hermetic seal that is so strong, the bottle and cap can be light-weighted, the tamper band and bore seal are no longer needed.

The UK milk industry saves **over 10,000 tonnes of plastic every year** with induction cap sealing.

Less plastic, high-class optics, excellent quality: OSI's beef steaks in innovative FlatSkin® packaging

How can meat products be packaged in a resource-saving way, without having to compromise on product protection, hygiene and convenience? This is where the packaging industry, food manufacturers and retailers are searching for new solutions, for example for self-service meat products. Until today, it is impossible to do without plastic, but with FlatSkin® there now is an innovative packaging method available that proves to be more sustainable. OSI Europe, subsidiary of the globally active OSI Group that supplies meat products to leading brands in food service and retail, has opted for this novel packaging system for its high-quality steaks. With more than 65 production sites and 20,000 employees in 17 countries, the company has become a pioneer in the introduction of FlatSkin® packaging.

A major trigger for OSI to switch to this new packaging system have been the changing market conditions. As Erik Schöttl, Managing Director Foodworks Europe at OSI, explains: "We recently see a trend towards high-quality products, such as our dry-aged steaks. These products need to be packaged accordingly. At the same time, sustainability has become a key factor in the decision process of the consumer. Therefore, we started looking for a high-end packaging solution for our premium beef steaks from around the world, which would not only combine maximum product safety and high-class optics, but also convenient handling, cost-efficiency and conservation of resources." The answer was FlatSkin®, a joint development of SEALPAC, supplier of high-tech tray-sealing technology, VG Nicolaus GmbH, specialist in cardboard packaging and folding cartons, and

Wentus Kunststoff GmbH, professional in the field of barrier films and laminates. By joining hands, these three companies were able to develop a skin pack that fulfils the demands expressed by OSI.

Marketable system with many savings

In the FlatSkin® process, a highly transparent barrier skin film fixates the product, for example a steak, directly onto the extremely flat cardboard carrier produced from bleached or unbleached fibre, which has been coated with a polymeric protective layer. This layer provides stability to the cardboard and forms a reliable barrier against grease, moisture and oxygen. The cardboard carrier can be printed on both sides, hence offering optimal space for product information whilst providing unique branding opportunities. The FlatSkin® system combines all the benefits of skin packaging, such as extended shelf life and post-maturation, with a particularly attractive product presentation. At the same time, the system is extremely economical and sustainable, as it significantly reduces the amount of plastic used and improves recyclability.

Burkhard Meyer, Sales Director at Wentus, explains: "With this packaging solution, compared to common plastic skin trays, a plastic reduction of up to 75% can be achieved. The top film, which fixates the product onto the laminated cardboard carrier, has a thickness of just 80 to 150 micron." Marcel Veenstra, Marketing & Communications Manager at SEALPAC, adds: "The trick to FlatSkin®:



after taking out the product, the thin polymeric layer is easily removed from the cardboard by means of a peel tab to allow for separate disposal of the cardboard carrier as paper waste, and both liner and skin film as plastic waste."

The three participating companies put a great deal of effort into the FlatSkin® project. Challenges included the climatic conditions prevailing in the meat industry, such as the high levels of humidity in production and logistics. "If fibrous materials, such as cardboard, absorb moisture, the fibres start to expand, which can cause the carrier to bend. This is why the carriers need to have excellent flatness. For this reason, we performed numerous tests under cold and humid circumstances in our own laboratory and in SEALPAC's Experience Centre in Oldenburg, Germany, to ensure a smooth packaging process and excellent optics at all times", explains Manfred Grupp, Sales Manager at VG Nicolaus. By using the optimal peel material, an excellent match of cardboard and skin film is guaranteed, as well as a reliable seal of the packaging. In addition, a large-sized peel tab allows for easy opening of the skin pack.



Positive feedback from retail

The result is convincing: FlatSkin® not only ensures savings in plastic. The excellent two-sided printability of the cardboard carrier, which offers sufficient place for branding and product information, makes the additional sleeve, often required for skin products, unnecessary.

"With the new packaging system, the filling rate of the transport boxes is also higher, which in turn reduces the amount of trucks on the road. Furthermore, not only do we use less material for packaging, but by separating and disposing of the components separately, we support better recycling", says Markus Holler, Group Operations Director Europe at OSI. FlatSkin® is used for the premium products within OSI's product portfolio.

Robert Zeller, Sales Director Meat Solutions at OSI, emphasises: "Most important, our customers receive the highest quality.

Meat products, such as our steaks, mature very well in the packaging. After opening, the meat keeps its appetizing colour and convinces with an extremely tender structure."

OSI Europe is proud for implementing this new packaging concept so quickly and for bringing it to the market first. Since the spring of 2018, the company has been successfully supplying all NETTO Marken-Discount stores in Germany

with beef steaks packaged in FlatSkin®. The positive feedback from the retailers underline the success of FlatSkin®. The responsables at OSI Europe are particularly pleased about the fact that, despite a completely new packaging process, they received no complaints after many thousands of delivered packs. The company can be regarded as a pioneer for bringing more sustainability to the self-service meat segment, hence creating a strong buzz in the market. Now the use of FlatSkin® is to be gradually extended to other countries.

Plastic packaging materials – as much as necessary, as little as possible

How will this development continue? All the partners involved in the FlatSkin® project agree that efforts should be made towards an even more efficient use of resources. OSI will continue to focus on more sustainability through better recyclability and further reduction of consumables. "We are investigating the extent to which the thickness of our packaging can be reduced while maintaining the same level of protection for our products", says Markus Holler.

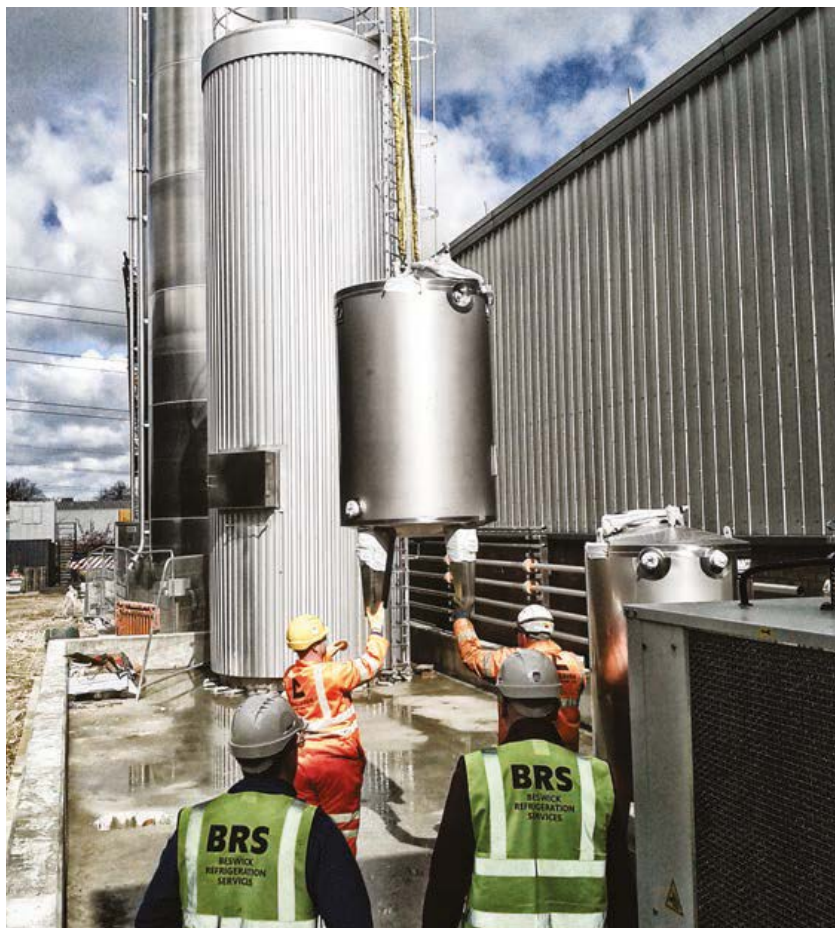
Film manufacturer Wentus is also working on further reduction of film thicknesses, as well as on recyclable mono materials, such as PP-based film. "This single-material packaging must be as powerful as common solutions, for



example have a high barrier to survive on the market", emphasizes Burkhard Meyer. "For fresh food products, due to the required water vapour barrier, oxygen barrier and hermetic seal, there is no real alternative to plastic. That is why we are all challenged to think about sustainability in different ways", says Marcel Veenstra. Manfred Grupp from VG Nicolaus concludes: "With FlatSkin®, we have impressively shown that it is indeed possible to replace parts of the plastic packaging with other materials, such as fibre."

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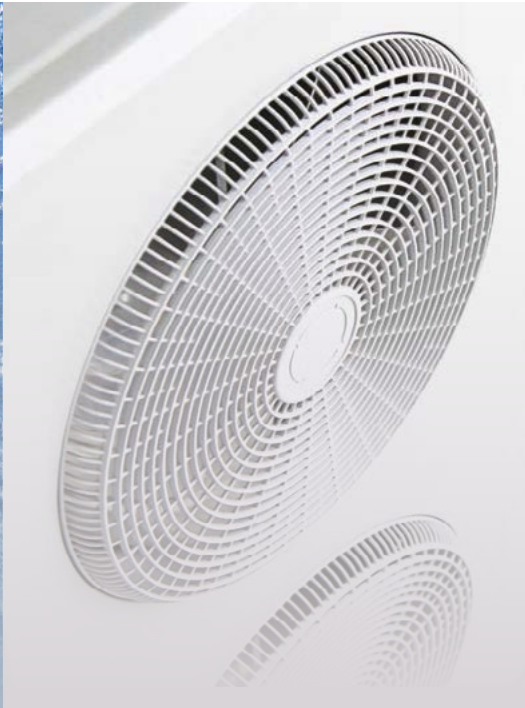


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