November December 2021 TECHNOLOGY TODAY

Trends, Solutions and Package Innovations of Today

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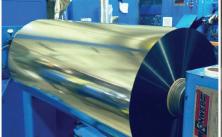
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EDITOR'S NOTE

Holiday Holdup

Welcome to the final issue of *Packaging Technology Today* for 2021. As I began writing, I was reflecting back to this time last year. Closing out 2020, the industry was highly focused on the direct challenges COVID-19 was creating for the industry. I think it is safe to say now that closing out 2021 is not without challenges that include further disruption to the supply chain.

Coming into the holiday season, \$24 billion worth of goods is awaiting to enter the American ecosystem, according to Goldman Sachs. It is predicted that these shipping holdups at the major U.S. ports are not likely to resolve themselves anytime soon. It is also predicted that the lack of products can create future shortages and increased prices (which we have already started to see). In fact, "shipping a container through major U.S. ports now takes triple the time it normally does. In September, about one-third of containers at the L.A. and Long Beach ports sat longer than five days before being shipped out," according to Goldman Sachs in a recent article published by CNBC.com. "Offloaded containers dropped by 9.1 percent at Long Beach and 3.6 percent at Los Angeles."

Despite this disruption to the supply chain, eCommerce continues to escalate. Perhaps now is a good time to wrap our

hands around product shipping wrap and how we can meet sustainability goals? Amongst the articles in this issue you will find, "Popping the Bubble on Protective Plastic Shipping Packaging" discusses why protective plastic packing materials must decline – and fast.

Also featured in this issue, "The Future of Marking & Coding: the IoT, and the Metaverse" discussed the concept of new technologies of the future for coding and marking. We have seen the Metaverse being integrated into gaming concepts, but when, or if, these concepts make their way into the packaging industry... only time will tell.

Wishing you all a safe and healthy closure to 2021 and looking forward to seeing what 2022 holds for the packaging industry.

'Till then,

Joan Martini

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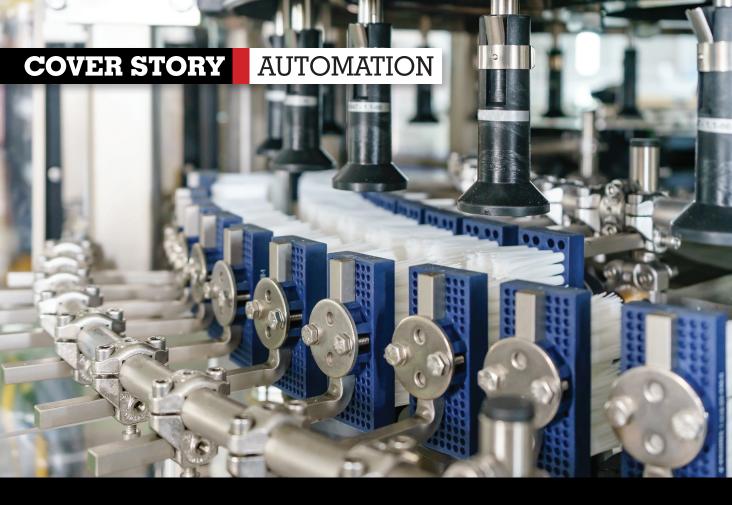


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THE LINK BETWEEN AUTOMATION AND BUSINESS GROWTH

WHEN IS THE RIGHT TIME TO INVEST IN MACHINERY?

By Tom Smith, Managing Director at Advanced Dynamics by Hallam

o grow or not to grow?

At some point, every SME owner will find themselves asking the above question. It's a daunting prospect, one in which that owner knows full well that, in order to grow, infrastructure investment is required.

Many new business owners may find themselves in this position right now. The statistics show that there was a record number of start-ups during 2020 - over 407,000 - despite the issues that were faced with the COVID-19 pandemic.

The likelihood is that the funding for such a step is coming from the business, perhaps just a short while after it has made money for the first time. At that stage, there is that decision to make. To grow or not to grow?

To use an analogy, it is like being sat around a roulette table. That business owner has had a few wins to get to the stage they're at now. Black has come in a few times. It's great. Now, they need to decide whether they're going to put that money back on black again in order to grow what they've accumulated.

Just like with roulette, the more you want to grow that business - the more you play so to speak - the higher the stakes become. There is a reason that, typically, it is harder for machinery businesses to sell a grassroots level \$7,500 machine compared to a \$250,000 full-service filling line to an established firm.

Without beating around the bush, it's a gamble to invest so much on some equipment, knowing that it could fall flat at worst. On the other end of the spectrum, you know that the \$30,000 the business is turning



Investing in automation can help speed up production.

over could turn to \$200,000 in the next year if you get it right.

So, how does a new business owner, who is likely to be spending their life savings in order to take that next step, know it is the right time to take the plunge? Justification. It is only then, and only ever at that point, that automation investment as a growing SME is the right thing to do.

Striking the balance of entrepreneurial flair

There's a lot to be said for entrepreneurial flair, but there's a balance to be had.

At one end, you have an accountant who will want every penny accounted for before they make a decision. Whereas, if you come from a salesman background, that person is more inclined to go a lot on gut-feeling and do what it takes to win a deal, without taking the time to weigh a decision up.

Making a growth decision fits right in the middle of those two opposites, like a cap screwed onto a bottle. You've got to be able to understand commercial figures, but you've also got to be able to understand opportunities and take them when they arrive.

Your finances are in check

The reality is that a bank or funder will, very rarely, loan money to a new SME for growth purposes and are deemed, rightly or wrongly, as high-risk businesses.

That puts extra emphasis on having the funds yourself and being in a position to take what will be a generous hit on the balance. Realistically, many owners will be putting everything - the family home, life savings, a child's future - on the line if they pursue a high-risk loan, in the hope they will see it return.

Within the packaging industry, if your investment in machinery is less than \$20,500, it needs to be returned in six months time. Anything more than that figure needs to be looked at across a 12-month timeframe.

Don't mistake that for not making any money during that time. I'm saying that your business can continue to trade in exactly the same way it was previous and is making the same profits while also paying back on the investment that has been made.

If you can achieve that, you can justify the purchase. If the machine is going to eat into the profits of the business and it's going to reduce the monthly earnings, your business hasn't hit the point of growth.

Your business is being held back by a "bottleneck"

In short, when we talk about a bottleneck, we're talking about something that is holding up a business operation.

As an example, this could be as simple, yet significant, as the capping process taking too long to complete manually. That's a bottleneck - one that if resolved could make the world of difference operationally and is, often, the barrier to growth.

Addressing that starts a chain reaction. Address the bottleneck and the business can make more products. Once you start making more products, you can commit to making more and taking on larger contracts. This, in turn, leads to more money and company growth.

Know your bottleneck. Understand what you need to do to overcome it.

Sometimes automation is just not the answer

The keyword within this sentence is circumstance. Actually, sometimes, automation is not the answer.

For example, you could be a business owner that makes 50 bottles of product a day. Yes, it can be slow and laborious, manually capping and labelling each one, and there's no doubt that investing in automation would help that owner more than triple that output in next to no time.

But that investment is not worth it if that business has no intention of growing that 50 bottles a day and hasn't got the customer base for it.



Automation can help with consistency and accuracy.

Automation, a lot of the time, is the right thing, but it comes down to cost and thinking.

If you're only doing that 50 bottles a day, our advice would be to wait, grow the business further, sweat the assets - the hands, so to speak - until you're at a point of making 700 bottles every day and need a machine to take you to the next level.

The benefits of automation are worth it

It was mentioned at the beginning that, in this position, it is easier for machinery businesses to sell a \$250,000 full-service line than a \$7,500 grassroots machine. But even with the latter, the benefits of investing are obvious.

The first thing you get is consistency and accuracy. It removes the inaccuracies that come with the human eye and over a longer period of time, investing in a machine will get a job done more consistently, more accurately, and, in most cases, also improve productivity by up to three-fold.

In line with that, it is also freeing up colleagues who otherwise would be doing manual labor work to do more important tasks around the business.

If you're a small supplier making juice cartons, for example, and you're making 80p per carton, the difference from doubling from 1,000 products to 2,000 products can be huge to a company.

Your return on investment - the buzzword from a couple of years ago - on a grassroots machine, at \$7,500, can be done very quickly.

Is it justifiable?

Ultimately, everything that has been outlined comes back to one word. Justification.

Whenever we're talking about that first level of automation, it is important to know whether you're investing for the right reasons and whether it is justified - and not just because you want to remove an element of labor from the mix. As a business owner thinking about growth, ask yourself some important questions:

- 1. How much product are you making?
- 2. How many changeovers are required?
- 3. Have you got the customer base and demand for potential growth?
- 4. Do you have a bottleneck holding you back?
- 5. Do you have the finances to back up your decision?

Once you have answers to those questions, you're left in a reasonable position to say whether a business is ready for automation.

Regardless, though, there will always be an element of risk in that decision, but if you're in a position where you can tick the boxes and confirm, with evidence, that you have the customer-base, that if you make more product it will be bought, and you have the finances to invest, that is the time to grow.

About the Author

Tom Smith is the managing director at Advanced Dynamics by Hallam. He can be reached at tom.bestwick@hallam.co.uk.

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THE FUTURE OF MARKING & CODING: THE IOT AND, THE METAVERSE

By Nathan Dube, Digital Marketing Specialist at Industrial Packaging

arking and coding technology has been a significant part of the packaging industry's rich history for many years now. But the technological advances that have yet to be seen as we enter into industry 4.0 will almost certainly be the most exciting evolution in these technologies thus far. As coding and marking have become more advanced through cutting-edge printers, labelling equipment, and newer devices such as laser engraving machinery, this ecosystem has moved beyond simple inkjet printing. However, the expansion of the ability to mark and code in new and exciting ways such as laser engraving a dynamic QR code directly onto a metal container is just the tip of the iceberg.

Until now, marking and coding machinery was operated by a machinery operator using a control panel or, more recently, an LCD screen. The machinery is run by an onboard computer run via the touch screen. But those days are coming to an end thanks to the IIoT.

What is IIoT?

Now, you may be wondering, what is the IIoT? Before we can answer that question, we must identify its precursor, the IoT. The IoT (Internet of Things) is the digitally connected network of smart objects (phones, computers, coffee makers, stoves, and other items connected to the internet).

Smart objects are any physical objects that feature processing capabilities, software, and other technologies that allow for the exchange of data with other smart devices, machinery, and digital systems over the internet via TCP/IP (IP standing for "Internet Protocol").

The IIoT takes this concept a step further as the "Industrial Internet of Things." The IIoT is the future of complete atomization through the implementation of smart packaging machinery such as collaborative robots and artificial intelligence.

When all the machinery in a warehouse is connected via the internet, it can be controlled remotely. The data they collect and produce will be stored via cloud computing, and devices (such as marking and coding equipment) can be run from anywhere with an internet connection.

The further evolution and implementation of advanced artificial intelligence will eventually allow smart packaging machinery to continually record, analyze, update, and improve upon key performance indicators resulting in an ever-improving supply chain. And this is good news considering the detrimental effects that the COVID-19 pandemic brought upon the global supply chain, which is still currently recovering from that unexpected black swan event.

With the looming shadow of the pandemic still lingering as numbers of variant cases continue to rise in various hot spots, the idea of automation for both progress and, more importantly, safety is be-



The IIoT is the future of complete atomization through the implementation of smart packaging machinery.

coming front and center for many packaging companies worldwide.

Here, we may glimpse at the next great leap in not only marking and coding equipment operation but all packaging machinery and robotics. I am, of course speaking about, the metaverse.

But, what exactly is the metaverse?

"The metaverse is a fully functional digital realm that exists beyond our own physical reality. The future culmination and integration of the fragmented virtual worlds will converge all digitally enhanced physical reality and physically persistent virtual or augmented spaces. Essentially, the metaverse is the future sum total of all virtual and augmented realities and the interconnections between those spaces and our physical world via the "internet of things," according to a blog post on Indsutrialpackaging.com.

To simplify, the metaverse is the next great evolution of the internet. According to various corporations and futurists, people will shift from tablets, phones, and computers to virtual reality headsets and augmented reality goggles to access the internet.

When (and if) the metaverse comes to fruition, using the internet will be much more similar to playing a video game in which websites are three-dimensional virtual spaces, buildings, towns, and cities.

When it comes to running, updating, and improving the operation and key perfor-



The metaverse being brought into packaging automation could look much more similar to playing a video game in which websites are three-dimensional virtual spaces.

mance indicators of marking, coding, and essentially all fully automated packaging equipment, operators will be able to run or monitor these machines virtually over the internet from any location they desire.

This next remarkable evolution in internet technology will allow people to run their packaging lines from the comfort of their own home, an office, or perhaps, the beach!

When will the metaverse arrive, and more importantly, will it arrive? Many CEOs of major corporations such as Facebook's Mark Zuckerberg, are betting on it and investing millions in developing this future virtual

space. However, only time will tell if or when the metaverse will come to fruition. ■

About the Author

Nathan Dube is a professional writer, blogger, and content manager specializing in text, audio, and video production as w:ell as voice acting. He hosts the industrial packaging podcast and produces the animated web series Industrial Packaging, an edutainment cartoon helping people to learn about packaging machinery and materials.



THE BENEFITS OF LIGHTWEIGHTING

John Brown, Vice President of Global Marketing at Selig Group

educing plastic impact
With less than 10 percent of plastic packaging at present recycled, many companies are looking for ways to reduce the amount of plastic used in their product packaging. Lightweighting – the reduction of the overall amount of any material in a piece of packaging - has become increasingly important as part of the sustainable packaging toolbox. Alongside the choice of alternative packaging and using recycled materials, lightweighting is being used by large and small food and beverage producers alike.

For example, the world's largest food and beverage company, Nestlé, has reduced the weight of its water bottles by 22 percent over the last ten years. Through its eco-design process the company has managed to avoid the use of more than 142,000 metric tons of packaging material by the end of 2019, compared to the baseline of 2015.

Promoting freshness, safety and affordability

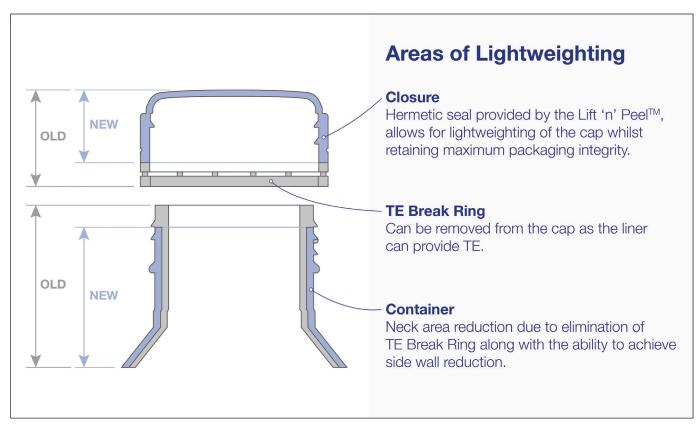
In the U.S. 40 million tons of food is wasted every year, equating to

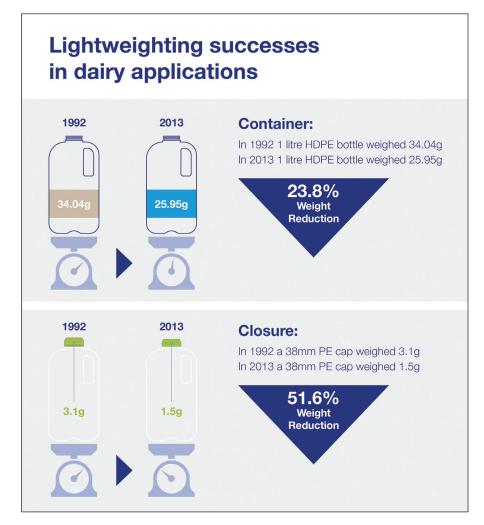
more than \$161 billion. A significant amount of this waste is from fresh produce thrown away by households each year. Although a consumer re-education program is needed, packaging and its ability to extend the shelf-life of foods plays a key part in the food waste reduction puzzle.

Plastic is difficult to replace in many food and drink applications, as it promotes product freshness, affordability and safety. However, the practice of lightweighting, along with improved packaging recyclability and reusability are all helping reduce the negative impact of this material on the environment.

Diageo, for example, has saved 1,323 tons of packaging in the U.S. by a simple redesign of its 1.75l Smirnoff bottles. By removing the handle on the side of the bottle, 4.8 ounces, or 12.6 percent of the total container weight, has been saved. With 8.7 million bottles being sold in this format, the reduction saves approximately the same weight as seven Boeing 747s.

Lightweighting as a process delivers a range of cost and environmental benefits. It helps reduce shipping costs, has environmental benefits and is proving popular with eCommerce applications. However,





attention needs to be paid to the quality of the packaging and the overall consumer experience it delivers. Afterall, thinner packaging can lead to performance issues.

Lightweighting and induction heat sealing

With this in mind, packaging must be robust, tamper-evident (if the product requires it) and leak free if it is going to provide customer satisfaction. To achieve this, while also lightweighting the packaging and closures, producers have turned to a variety of methods to allow lightweighting. This includes changes to molding technology and packaging redesign to remove unnecessary features and the corresponding lowering of the weight. Lightweighting combined with induction heat sealing has stood the test of time however, as it creates a strong, hermetic seal that has many benefits.

One of the primary benefits of induction heat sealing is that it is a quick and economical way to create a strong, hermetic seal. It can provide clean peel on packaging for recycling purity and also tamper-evidence, if needed. This added security feature enhances customer confidence in the product's integrity and helps deter instore sampling. The hermetic seal promotes freshness retention and improves the shelf-life of products. Induction heat seals also provide strong leak prevention and spoilage level reduction. This sealing method is suitable for high-volume operations and can be used on a wide range

FEATURE STORY

LIGHTWEIGHTING

of glass and plastic containers.

Thanks to induction heat sealing, key areas of a container can be lightweighted. These include the closure, any TE Break Ring and the container itself. The hermetic seal created by using an induction heat seal allows for lightweighting of the cap. It also allows for reduction in the packaging's side wall, whilst retaining maximum packaging integrity. The TE Break Ring can be eliminated from the cap, as the liner can provide tamper evidence. Finally, there can be neck area reduction on

the container itself, due to the elimination of the TE Break Ring.

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How induction heat sealing works

Induction heat sealing uses a laminated liner which is placed inside the container closure. The essential components in the seal include an aluminum layer and a heat seal layer. The specific material of the heat seal layer is chosen on a caseby-case basis, depending on the material of the container and what it is packaging.

On the automated production line, screwing the cap onto the container brings the seal into position. The assembly then passes within the field of electromagnetic energy, which generates an induction current - and heat - in the aluminum, without any need for contact. The heated seal adheres firmly to the rim of the container as it cools. As well as being fast, induction heat sealing is relatively inexpensive and environmentally friendly due to its low energy and material consumption, including plastics and its lightweight end results.

An example of induction heat sealing's success can be seen in the dairy industry. As a result of adding induction heat seals to its products, one New Zealand based milk brand has experienced significant improvements in leakage prevention and the elimination of spill mats. As well as a corresponding growth in sales, the company has also seen its milk improve in shelf-life from 12 to 14 days.

There are significant environmental, cost and functional benefits to be achieved when the potential of induction heat sealing and packaging redesign are maximized. With increased productivity, reduced returns and lengthened product life some of the advantages, is there any reason to delay the lightweighting process?

About the Author

John Brown is the vice president of global marketing at Selig Group. He has been in the packaging industry for over 25 years, with focus on the food, beverage, pharmaceutical, personal care, and industrial chemicals markets.





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POPPING THE BUBBLE ON PROTECTIVE PLASTIC SHIPPING PACKAGING

AS ECOMMERCE EXPLODES, PROTECTIVE PLASTIC PACKING MATERIALS MUST

By Lorne Herszkowicz, Partner at HexcelPack

s eCommerce continues to escalate, we must wrap our hands around product shipping wrap to ensure optimal sustainability and eco-friendliness into the future. While environmentalists were already bracing for the glut of padded mailers, corrugated fiberboard, shrink wrap, and bouncy air pillows the rise in online shopping promises to leave in its wake - the COVID-19 pandemic has only accelerated the timeline.

U.S. eCommerce has grown 44 percent in 2020 with online spending rising steadily, representing over 21 percent of total retail sales for the year. Experts predict this behavior will remain even after the pandemic is contained. A recent survey by McKinsey & Company

found a 40 percent net increase in intent among respondents to spend online post-pandemic.

Consequently, plastic pollution is multiplying. Amazon alone produced 465 million pounds of plastic packaging waste in 2019, according to a recent study by Oceana, producing enough air pillows to circle the globe an astounding 500 times. Meanwhile, market research firm Technavio estimates that demand for filled-air products is likely to swell by \$1.16 billion between 2020 and 2024 due to increased online sales.

In short, it is critical that businesses bridge the growing disconnect between our affinity for online shopping and our affinity for... well, our planet.

The good news: in recent years, the technology producing sustainable paper-based alternatives to plastic protective packing has steadily progressed. These paper-based padding solutions carry the potential to deliver myriad benefits comprising strong sustainability, positive brand perception, and exemplary return-on-investment – all while providing optimal product protection.

The sustainability solution

Paper-based packaging products offer drastically improved sustainability, with little to no impact on the environment – and deliver protection proven to outperform plastic bubble packaging and pillows. Unlike single-use plastic bubble packaging, paper is fully curbside recyclable; by contrast, less than 14 percent of the nearly 86 million tons of plastic packaging produced globally each year is recycled. The vast majority is land-filled, incinerated, or left to pollute waterways and poison wildlife.

Conversely, in 2018, over 32 million tons of corrugated boxes were recycled out of nearly 34 million tons of total paper and paperboard recycling, according to the U.S. Environmental Protection Agency (EPA). The recycling rate for corrugated boxes was a remarkeable.96.5 percent.

Making eCommerce product protective packing from the same basic materials as the boxes in which they arrive – namely, paper – is the simplest, most streamlined path to a dramatic uptick in eco-friendliness. Clearly, this is a virtual no-brainer for any business looking to do its part to fight the mounting waste crisis – and in doing so, reap the dividends of a consumer base increasingly considering a brand's eco-consciousness when making purchasing decisions, online or otherwise.

Builds customer bonds

A positive brand image builds customer loyalty and, in recent years, a brand's sustainability bona fides have risen toward the top of consumers' priority lists. Today's online consumers are increasingly conscious of – and interested in – how businesses operate on a sustainability level, bringing packaging to the forefront of the various factors considered when deciding what brands and companies to patronize.

An IBM/National Retail Federation study found more than 70 percent of respondents would pay, on average, 35 percent more for eco-friendly brands. And a Paper and Packaging Board survey found that 78 percent of consumers would be more likely to buy products packaged in paper or cardboard specifically, because they are better for the environment than other materials. With e-commerce, that eco-consciousness inev-



The technology producing sustainable paper-based alternatives to plastic protective packing has steadily progressed.

itably extends to the protective packaging in which products arrive. When the first thing a customer sees upon opening a box is several feet of plastic wrapping, how could a brand's sustainability image not take an immediate hit?

Unsurpassed product protectionnd

The use of paper-based void filler can be an effective tool to help "pop the bubble on plastic packaging" that, unfortunately, still envelopes today's packaging industry. Using paper as void fill offers unsurpassed insulation, making packing peanuts and other toxic products antiquated and unnecessary. Good riddance.

The latest paper technologies are engineered to deliver ultimate product protection and packing simplicity for eCommerce. One method is utilizing groundbreaking slit paper technology, converting extensible paper into a three-dimensional, internationally patented cushioning product by making precise cuts at specific angles. This method

makes the paper "flex," expanding its volume while maximizing the strength and stiffness of its fibers. The result is a superior cushioning product proven to outperform environmentally-harmful product protection alternatives – including plastic-based bubble packaging and pillows. It is ideal for shipping even fragile items, and reduces product damage by eliminating, among other adverse events, glass-on-glass contact during the supply chain journey.

Increased return-on-investment

As snack food brands review their packaging options for security, sustainability and overall look and feel, the importance of labeling should not be discounted. As consumers accelerate their shopping pace to get in and out of the store quickly and safely, it's more important than ever that they can easily read product labels.

One of the biggest challenges eCommerce businesses face is lowering product return rates. Here, damaged goods are major cul-





Paper-based packaging drastically improves sustainability, and often delivers product protection that outperforms plastic bubble packaging and pillows.

prits. Returns can incur hefty hidden costs that cut deeply into profit margins. In fact, while return rates to traditional stores are around 8 percent, this jumps to approximately 25 percent for items bought online, according to research by SaleCycle. Moreover, the quality of the product received is the main factor behind product returns, with over 80 percent of returns due to the product arriving damaged or broken, prompting not only an onerous return process but an erosion of customer trust. Considering this, effective, sustainable packaging solutions are as essential to the bottom line as they are the planet.

The battle between increasing eCommerce and rising eco-consciousness will be present for the long haul. Quite simply, it benefits businesses to embrace paper-based packing solutions – ones that must emerge far more broadly in the 2020s. Both customers and the environment demand it.

About the Author

Lorne Herszkowicz is partner at HexcelPack, a developer of eco-friendly, paper-based protective cushioning solutions to replace bubble wrap and other plastic or foam-based materials. www.hexcelpack.com

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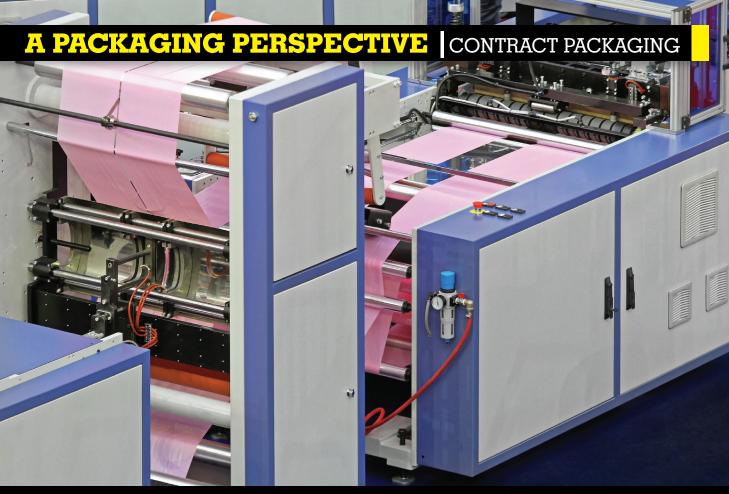


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Packaging machinery necessary to package the product will affect the price of the contract packaging project.

THE ROLE OF PRODUCT SAMPLES IN CONTRACT PACKAGING

By George J. Newton, Contributing Writer

nvesting in the manufacturing infrastructure required to handle the largescale packaging of your products is expensive and unnecessary. For many companies, the cost-effective solution is contract packaging. Experienced co-packers offer companies their infrastructure, knowledge, expertise, and scalability to ensure the finished products are successfully distributed. The outsourcing of supply chains to co-packers helps alleviate the stress of packaging and distribution on businesses.

Now that your business has made the cost-effective decision to work with a co-packer, you will likely be required to provide product samples in order to move forward with the contract packing agreement. There are several reasons why product samples are required for contract packaging.

To calculate the cost of the project

Experienced co-packers often require businesses to provide product samples before entering into an agreement to package their products for them. The product samples enables the co-packer to determine the most suitable packaging materials for the products. Once they select the materials that best fit your brand and preserve your products well, they can provide an accurate cost per product packaged. Depending on the quantity of products you want packaged, they can calculate the cost of the total materials required.

In addition to cost of the materials, the packaging machinery necessary to package the product will affect the price of the contract packaging project. In order to determine the appropriate machinery needed to package your products, they require product samples.



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Depending on the quantity of products you want packaged, the calculation of the cost of the total materials is also required.

All of these variables that require your product samples determine the total cost of outsourcing your packaging and distribution to an experienced co-packer.

To ensure the finished product meets your expectations

After the most suitable materials for packaging and the machinery required to package

your product are selected, your co-packer can provide you with their own sample of the packaged products. You can review these samples of the final product to ensure they meet your standards. This allows businesses to inspect the quality and request any adjustments to the packaging.

Only after you approve the sample will they begin full production of packaging your product. The product samples you provided will save both you and the co-packer time and money. It gives you control over the process by confirming you are satisfied with the materials and the aesthetics of the packaging.

This is one of the main reasons why product samples play such a crucial role in the manufacturing process. It ensures the packaging of your product meets your brand standards and protects the quality of your product. Providing your co-packer a sample of your products guarantees that the final products exceed your expectations.

Contract packaging is more than just packaging, according to Robert Wiley, a recruiter at Britstudent and Write My X. "Co-packers offer businesses an opportunity to capitalize on their industry experience and expertise. They can help a business grow by getting a pristine finished product into the hands of consumers and scale production to match any growth."

To provide a timeline for the final product

Once you approve the packaging samples offered by the co-packer, they can begin full

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Co-packagers can help a business grow by getting a pristine finished product into the hands of consumers and scale production to match growth.

production of packing your products. Based on the total number of products you need packaged, they can confirm whether or not the timeframe you requested is feasible.

Your requested completion date may also alter the cost of your contract packaging.

To determine whether or not the co-packer is the right fit

Providing potential co-packers with sample products will ultimately allow you to decide which contract packager is the right fit for your business. The packaging samples of the final product they provide, the quoted total cost of your project, and the timeframe within which they can complete the packaging will help you decide the right co-packer for your products.

"Co-packers do the heavy lifting," explains Steven Duncan, a business writer at Originwritings and 1day2write. "Companies can focus on designing their products, marketing, and other core competencies while contract packagers competency."

plete the processes required to prepare their finished product for distribution."

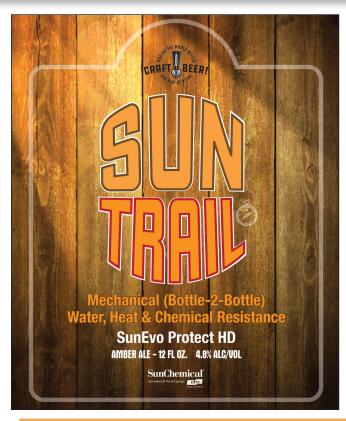
Regardless of which experienced co-packer you decide to enter into a contract packaging agreement with, it is important to provide prospective vendors with product samples first. This enables you to make the most informed decision for your business and determine which co-packer can deliver the best final packaged product that will help boost sales and grow your business.

About the Author

George J. Newton is a business development manager and content writer at Academic Brits. You can find his work at PhD Kingdom and Next Coursework.







Sun Chemical Introduces Innovative Range of Varnish Solutions

Sun Chemical introduced an innovative new range of durable UV varnishes for enhancing the label resistance of HP Indigo digitally printed pressure-sensitive labels for products such as personal care, household, chemical, beverage, and pharma applications.

The new range of varnishes was specifically formulated to provide adhesion to HP Indigo ElectroInk and has been designed to provide high levels of mechanical durability on HP Indigo printed labels. Furthermore, the solution reportedly delivers mechanical, chemical, water and thermal resistance withstanding vigorous bottle-to-bottle scuffing test, making the range the ideal choice for ensuring high durability, and in some instances offering a cost-effective and benefit from sustainability advantages alternative to cumbersome lamination processes.

Two new products are available as part of the set: EV-LU028 GLOSS and EV-LU029 MATTE. The range is available to be ordered immediately. Commercial production has started in Europe with other regions following shortly.

For more information, visit www.sunchemical.com.

Squid Ink Introduces the CoPilot Max 512i Turbo Printing System

Squid Ink Manufacturing, Inc., a manufacturer of coding and





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marking systems for product identification and traceability, recently introduced the CoPilot Max 512i Turbo printing system designed to print superior quality hi-resolution characters on porous or non-porous surfaces.

CoPilot Max 512i Turbo utilizes the same active ink system found in Squid Ink's CoPilot and CoPilot Max printing systems. The revolutionary design reportedly allows users to tilt or rotate the printhead in any direction without making height adjustments to the ink supply. In addition, the system prints hi-resolution characters, razor-sharp text, scannable bar codes, and great-looking logos at up to 180 DPI vertical resolution at up

to 480 ft/min, offering the fastest print speeds in Squid Ink's CoPilot family.

The CoPilot Max 512i Turbo also features a large 500 milliliter snap-in cartridge, allowing users the ability to swap ink cartridges in a matter of seconds. It also features a 4.3-inch full-color touchscreen that reportedly allows users to access the system's internal messages and print functions. Messages are created and edited on Squid Ink's easy-to-use $Orion^{\text{TM}}$ PC Software and transferred via USB, Ethernet, wireless, or optional Windows® tablet. The tablet is ideal for users who want message creation and editing functionality on the production floor.

For more information, visit www.squidink.com.

Baumer hhs Introduces eCommerce Hot Melt System

Baumer hhs announced the launch of its new hot melt system for eCommerce packaging. Designed to meet the growing demand for high-quality delivery boxes with pressure-sensitive adhesive closures, the turnkey system includes an energy-efficient melter, application head, controller, product guide, and durable mount with precision settings.

The new hot melt system helps users improve efficiency, productivity, and flexibility. A high melt rate of 100 kg/h with pressure-sensitive adhesives increases efficiency. A special application head, coupled with a new volumetric flow controller, results in consistent performance at maximum



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production speeds. The system reportedly offers flexible configuration with various nozzles for the application head, and adaptable masks for different application patterns depending on the type of packaging. The application head processes a variety of adhesives with a range of high viscosities, giving users flexibility in pressure-sensitive adhesives.

A silicone strip applicator, supplied by Baumer hhs through its partner ENPRO, is integrated into the system and can be

used to control it. The new system also can be integrated with all Baumer hhs common controllers.

For more information, visit www.baumerhhs.com.



JOI Debuts New Look

JOI, announced its brand refresh and shift to 100 percent sustainable packaging.

With the mission of empowering consumers to take control of their plant-based ingredients by providing sustainable, whole food solutions that they can feel good about, JOI is reinvigorating its brand to deliver on each of these promises with unmatched sustainability and design updates that reflect the optimum nutrition and versatility that the range of products offers.

By creating plant milk concentrates, JOI can reportedly offer



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a dramatically longer shelf life than its competitors and exponentially reduces the need to ship heavy water weight across the country, thereby reducing food waste from spoilage and cutting down on carbon emissions. The transition of all JOI product packaging to 100 percent recyclable glass jars and fully compostable pouches is a major step for the company as it works towards a zero-waste carbon footprint.

The new ecological glass jar packaging is available in five regular and USDA Certified Organic varieties of plant milk concentrate bases including: Almond, Organic Almond, Cashew, Organic Cashew and Hazelnut Cashew Oat Creamer. The compostable pouches for the JOI Oat Milk Powder are the first ever dairy alternative packaging that will completely decompose and are safe for home and community composting where accepted.

One glass jar of JOI Plant Milk Concentrate makes up to seven quarts of plant-based milk, while the compostable pouch makes a gallon of plant-based milk, significantly reducing the amount of packaging that regular milk cartons would require for the same amount.

With the transition to new packaging also comes a refreshing new look, featuring bright, fun colors and an updated brand logo, designed to reflect the emotion of JOI and creativity sparked when using the products.

For more information, visit https://addjoi.com.



Mondi and Vafo Group Unleash Recyclable Dog Food Packaging

Mondi is supplying a range of recyclable mono-material pet food packaging for Hau-Hau Champion, one of Finland's most recognized brands in the premium dog food segment.





The new packaging fulfils the pet food producer's objective to launch a reclosable and recyclable packaging solution that does not compromise on performance and retains the strong brand recognition in stores. It also addresses sustainability concerns of end consumers that are playing more of a role in the purchasing of pet food and products.

Mondi's customer-centric approach, EcoSolutions, helped Hau-Hau Champion find a high-barrier solution that can be reclosed, keeps food fresh and confines any smells. The previously unrecyclable multi-layer packaging contained a metallized layer which was replaced by Mondi's recyclable mono-material packaging: a reel material for form-fill-and-seal (FFS) 1.5-kilogram bags and pre-made FlexiBag Recyclable for bags up to 15 kilograms. FlexiBag Recyclable is a mono-material polyethylene (PE) pre-made bag developed specifically for recycling, which means it can be deposited directly into Finnish plastic recycling streams.

For more information, visit www.mondigroup.com.

ProAmpac Launches Water Resistant Curbside Recyclable Paper Mailer

ProAmpac announced the launch of its ProActive Recyclable® Paper Mailers. These curbside recyclable mailers have up to 70 percent lower water absorption versus a standard

kraft paper mailer. Utilizing a robust paper, ProActive Recyclable Paper Mailers ensure protection of the package during transit.

ProActive Recyclable Mailer includes an elegant side seam construction provides opportuthat nities for sleek branded graphics appearing much less industrial than center seamed traditional paper mailers. The sealed top can have single or dual closure options that prevents product intrusion, but also includes an easy open tear strip for consumers to ensure goods arrive without tamper.



For more information, visit www.proampac.com.

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