



OCTOBER 23 – 26, 2022 ■ CHICAGO IL, USA

A PRE-SHOW PLANNER

- Exhibitor Guide, Floor Plan, and Educational Sessions
- Special Presentations From Sugarlands Distilling, Conagra, Smithfield, Bob's Red Mill, and More
- Show Preview to Maximize Your Show Experience
- Perspectives on Vertical Food and Beverage Sectors

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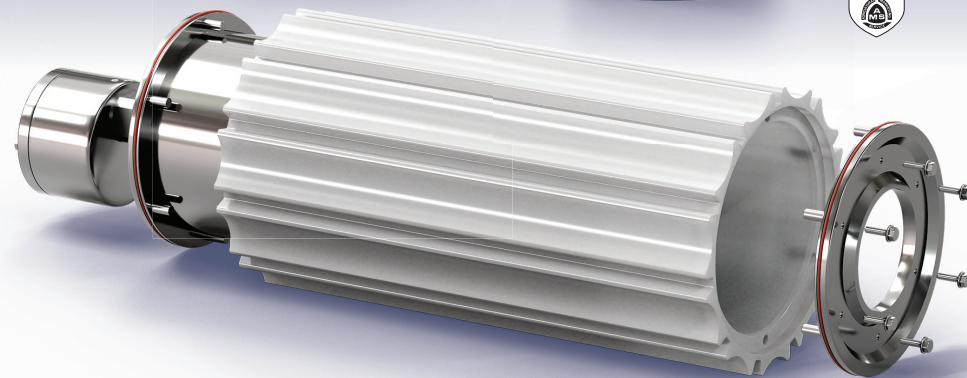


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SEPTEMBER 2022 ■ SPECIAL EDITION

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2022 ■ CHICAGO IL, USA

SHOW PLANNER



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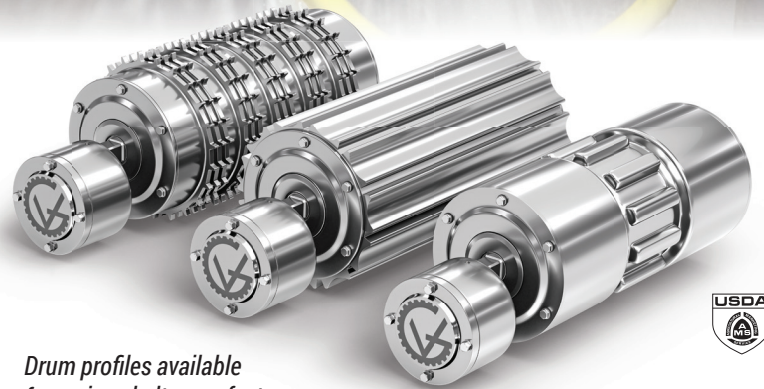
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ABOUT PMMI

PMMI, The Association for Packaging and Processing Technologies, represents more than 950 North American manufacturers and suppliers of equipment, components and materials as well as providers of related equipment and services to the packaging and processing industry. We work to advance a variety of industries by connecting consumer goods companies with manufacturing solutions through the world-class PACK EXPO portfolio of trade shows, leading trade media, and a wide range of resources to empower our members. The PACK EXPO trade shows unite the world of packaging and processing to advance the industries they serve: PACK EXPO International, PACK EXPO Las Vegas, Healthcare Packaging EXPO, PACK EXPO East, Enlace EXPO PACK, EXPO PACK México and EXPO PACK Guadalajara. PMMI Media Group connects manufacturers to the latest solutions, trends and innovations in packaging and processing year-round through brands including Packaging World, Automation World, Healthcare Packaging, Contract Packaging, ProFood World, Mundo PMMI, and OEM. PMMI Business Drivers assist members in pursuing operational excellence through workforce development initiatives; deliver actionable business intelligence on economic, market, and industry trends to support members' growth strategies; and actively connect the supply chain throughout the year.

Learn more at pmmi.org, packexpo.com, and pmmimediagroup.com.

1 About PMMI

PMMI, the Association for Packaging and Processing Technologies, and producer of PACK EXPO International, welcomes you to the most comprehensive packaging and processing exhibition in North America this year.

3 Welcome Letter

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Packaging and Processing Back and Better Than Ever in the Windy City

It's been only four months since I moved away from Chicagoland to take root in Tennessee. But after 22 years calling the Chicago area home, I can't wait to get back. Meanwhile, it's been four long years since PACK EXPO's been in the Windy City. Just imagine how the entire industry is aching to get back to the best pizza, the best steak, the best architecture, the best museums, the best waterfront—not that I'm biased or anything. Oh, and the best packaging and processing event.

It was 2018 when PACK EXPO International last took place in Chicago. A lot has changed since then. Not only did the COVID-19 pandemic keep PACK EXPO from taking place as an in-person event the next time it was due to land in Chicago in 2020, but it significantly changed the face of the food and beverage industry. It caused a dampening in SKU proliferation, shifted consumers from restaurants and bars to homecooked meals and ready-to-drink cocktails, exposed chinks in the supply chain armor, and changed ideas about what was considered a safe manufacturing environment. The pandemic also accelerated trends that were already on their way—such as a move to more plant-based foods across a wider range of households, improved transparency and cleaner labels, and increased concerns about food safety and sustainability.

With change comes innovation. Processing plants have adapted to the need to space workers further apart—not just adding barriers and reconfiguring lines, but in more and more cases, integrating increased levels of automation and robotics to keep production levels where they need to be to address burgeoning demand along with reduced labor availability. Innovations are making equipment easier to use, helping to alleviate shortfalls in supply, improving sustainability, and so much more.

More than 2,100 exhibitors are ready to put those innovations on display, letting potential customers see how they can overcome their current and future manufacturing challenges. Close to 200 exhibitors were lined up by press time to exhibit specifically in The Processing Zone, where processing solutions will be showcased. Also at press time, attendee registration was ahead of where it was in 2018—showing that users are just as eager to get back to seeing what the industry has to offer.

Of course, PACK EXPO has continued on its course over the past four years. After the 2019 PACK EXPO Las Vegas, we shifted gears during the pandemic in 2020 and put together what I think turned out to be a stellar (biased again, I know) virtual show and conference with PACK EXPO Connects. And then in 2021, as COVID began to be tempered by vaccine availability, PACK EXPO Las Vegas returned in full force as an in-person event. But the Chicago show is called “International” for a reason—it's the big one, with more exhibitors and attendees geared up to make connections.

In The Processing Zone, *ProFood World* readers will find not only the exhibitors most targeted to their needs, but also a new Processing Innovation Stage dedicated to the latest breakthroughs in processing. On that Innovation Stage, found at Booth 7130 in the upper level of McCormick Place's Lakeside Center, be sure to catch the ceremonies for both of *ProFood World's* awards programs.

On Sunday at 4 p.m. on the Processing Innovation Stage, Editor-at-Large Joyce Fassl will present our Sustainability Excellence in Manufacturing Awards. Come hear what execs from Conagra Brands, Smithfield Foods, and Bob's Red Mill Natural Foods have to say about their winning efforts in sustainability. Then on Tuesday at 4:15 p.m., hear more about our Manufacturing Innovation Award winners at Sugarlands Distilling and United Airlines Catering Kitchen Operations.

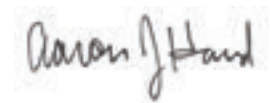
Check pages 18 and 19 to learn more about what else we have in store on the Processing Innovation Stage as well as our three other Innovation Stages in the North Building Concourse.

There's a whole lot more to check out at PACK EXPO International, so let our Showcase serve as your introduction. The Show Preview section beginning on page 12 is full of tips about some key features at the show, and then the floor plan and exhibitor list on pages 20 and 21 get right down to the nitty-gritty of who you might want to make sure to visit while you're at the show.

Can't wait to see you in Chicago!



Aaron Hand
Editor-in-Chief



VERTICAL

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PERSPECTIVES

It's always interesting to piece together our now-annual Vertical Perspectives section, which appears in every PACK EXPO Showcase issue. My colleague Aaron Hand, editor of *Packaging World's* sister publication *ProFood World*, joins our six editorial counterparts at Sosland, a publisher of food industry media brands, to deliver perspectives on food and beverage.

While each vertical market has its own unique set of challenges and opportunities, there are a few common threads that weave their way through the seven columns that follow. The three most mentioned lines of thinking among these depth-plumbing perspectives reference the realities around supply chain, workforce, and automation. Even though they're entirely behind the scenes to the average consumer, these factors provide the framework that underpins the food industry as a whole, acting almost like three legs of a stool. As such, they're interconnected, and when one moves, the other two respond, and vice versa.

There appears to be hope, or at least a glimmer of light at the end of the tunnel, for food producers slogging through the supply chain issues that rocked their industry throughout the pandemic. Expectations are for supply chains to slacken, but the uncertainty remains.

Meanwhile, there's less hope, at least at the moment, for any broad return of cheap and plentiful labor. The so-called Great Resignation continues, as the balance of power shifts even further into the hands of employees over their employers. Scarce labor, a tight job market, and record-low unemployment means the workforce can name their terms, and their price.

But if there's anything close to a silver bullet answer to the workforce dilemma, it's automation. There are some areas in food, generally on the processing side, that have for some time been keeping up with automation as a means to defray labor costs and workforce scarcity. But there are specific areas that could benefit greatly from an automation shot in the arm. Among others, opportunity in automation is particularly evident in the dairy industry, according to Kristen Putch, Managing Editor of *Dairy Processing*, on page 7, and in packaging operations at small to midsized food-producing facilities, according to Charlotte Atchley, Editor of *Baking & Snack*, on page 6.

Automation relies on supply chains that are still reeling from the pandemic, and long lead times can be seen as a deterrent to taking the plunge. But operations with the most aged equipment are those with the most to gain. Automation is almost an imperative to even the most hesitant companies, as operations with access to actionable data continue to improve their margins and widen the gap over their automation laggard peers.

Clearly, supply chain, workforce, and automation are the leading actors on the food and beverage stage right now, and the following Vertical Perspectives will provide unique insights in how they relate to one another.

—Matt Reynolds, Chief Editor, *Packaging World*

Supply Chain Issues Continue to Impact Food and Beverage Producers

It's been interesting to watch attitudes and expectations shape and evolve over the past couple years. In 2020, an awful lot of short-term thinking prevailed. As restaurants and other businesses went into lockdown, the view was toward surviving the hardship until things could get back to normal. Maybe things could get back on track by the summer. If not, maybe by the end of the year.

The food and beverage industry was able to get a handle on some of those issues during the pandemic. The supply chain, which had quickly shown its weaknesses when COVID-19 first hit, began to fall back into line. The empty shelves began to refill. Producers adjusted their production standards, easing back on proliferating SKUs. They also adjusted their production lines to better protect their workers, installing barriers and distancing staff members. Manufacturers and consumers alike adapted to a new normal.

This year, that new normal has continued to struggle with supply chain issues, however. It seems that every problem these days is attributed to the supply chain—a shrug of the shoulders followed by, “Well, you know, supply chain.” For manufacturers, those same supply chain issues—ships stuck in ports, a lack of manpower to build or unload supplies—has made it difficult to get the equipment needed to keep up with often skyrocketing demand.

But the supply chain issues brought on by the pandemic have only worsened this year. The Russian invasion of Ukraine, begun in February this year, has led to high oil and gas prices, and has also caused a shortage of key food ingredients. Ukraine is the world's fourth largest grain supplier, according to the Food and Agriculture Organization of the United Nations, and supplies more than 40% of the world's sunflower oil. Food producers have moved to reformulate products to make use of other oil types, but of course it's not as easy as coming up with a new recipe to mimic the previous taste. Production, labeling, regulations, and other factors must be reconfigured as well. Brazil, taking advantage of high energy prices, has pushed more of its sugarcane toward ethanol

production, leaving food and beverage manufacturers potentially scrambling for sugar supplies as well.

While many ingredients needed to go into food and beverages are in short supply, some of the packaging for the finished goods are as well. Demand for aluminum cans had been growing for years, but the pandemic put an even greater stress on supply as consumers drank more at home instead of at bars or restaurants. The low availability of aluminum extends the shortage to canned foods. Glass bottles have also been in short supply.

Labor issues relate to all of these supply chain woes as well. Everywhere, employers are struggling to find the workers needed not only to produce goods but also to move and stock those goods. Many people have not gone back to work since COVID hit, concerned about low wages and poor working conditions.

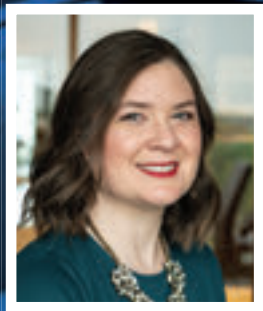
Though many consumers looked at the baby formula shortage earlier this year as yet another fallout of the same old supply chain issues, it was actually largely caused by food safety shortfalls at Abbott Nutrition's baby formula plant in Sturgis, Mich. After reports of infant illnesses and deaths linked to products made at the plant, Abbott recalled several lots from three powdered infant formulas (Similac, Alimentum, and EleCare) in February and the plant was forced to shut down the same month. Through some work with the Food and Drug Administration (FDA), the plant was able to open again in early June.

Though there have been several concerns about how the FDA handled safety issues at Abbott's Sturgis plant, the FDA's ability to regulate food safety issues has increased considerably through the Food Safety Modernization Act (FSMA). Overall, the food industry is doing a better job of controlling hazards, according to Eric Edmunds, food safety director for The Acheson Group (TAG). “The science is improving, and the ability to detect and tie illnesses to actual causes is definitely getting better,” he said for a report written for *ProFood World* earlier this year on a proposed rule for traceability that the FDA plans to roll out this year.

VERTICAL PERSPECTIVES



AARON HAND
Editor-in-Chief
ProFood World



CHARLOTTE ATCHLEY
Editor
Baking & Snack

Adopting Automation Out of Necessity

The industrial baking industry has been on an automation kick since the second half of 2020 that has accelerated even into 2022. Initially, it was driven by the substantial increase in capacity needed to meet unprecedented demand for baked goods on supermarket shelves. Today, automation remains top of mind for bakers as they struggle to find enough people to work their production lines.

Sosland Publishing's 2022 State of the Industrial Baking Industry study, conducted by Cypress Research, found that 53% of baking companies of all sizes experienced a lack of sufficient workforce to meet production demands. This has negatively affected business in many ways: 49% reported a negative impact to the timeliness of production, 34% noted they were unable to take on new business, and 58% reported that existing employees have had to work significantly more hours to meet demand.

To address low employment and other issues, U.S. baking companies have largely turned to advancements in technology. Of those surveyed, 61% reported that increasing automation was their plan to address the skills shortage they felt. This is second only to increasing wages. And where do baking companies have the biggest opportunity to automate? For the most part, it's in their packaging departments.

In *Baking & Snack's* Automating Out of the Baking Industry Labor Challenge study, also conducted by Cypress Research, 85% of respondents from baking companies reported that eliminating the need for manual labor was an important goal when investing in automation. The survey also broke out the processes bakers could automate and found that the packaging department offered the most opportunity for baking companies to invest. This included automated quality control technology, primary packaging, palletizing, robotics, and product loading and basket handling.

Large baking companies—those with annual sales greater than \$100 million—showed the most interest in packaging technology as many of these businesses have already automated upstream processes such as ingredient handling and product transfers. For small to midsized companies, the packaging process is typically the most manual and packs in the most

workers around a production line.

Survey respondents were asked to rate automated technologies as “currently not using, not planning to purchase,” “currently using, not planning to upgrade,” “not currently using, planning to purchase,” and “currently using, planning to upgrade.” Nearly a quarter of the large baking companies reported they weren't using non-robotic primary packaging technology but were interested in using, but 26% were interested in purchasing a complete robotic automated system for primary packaging for the first time. Meanwhile, 20% of these companies were interested in non-robotic palletizing, and 23% and 20% were interested in complete robotic solutions for palletizing and secondary packaging, respectively.

Most notably, however, is that large companies are implementing automated vision inspection, with 40% already using this technology with no plans to upgrade. However, 29% who are currently using this technology are intending to upgrade their system, and 11% who aren't already implementing vision systems are looking to purchase. Only 14% of large baking companies aren't using vision inspection systems and have no plans to purchase, indicating that there is growing emphasis among bakers to invest in digital controls and automate quality control.

Small to midsized baking companies that report less than \$100 million in sales annually are also interested in packaging technology even as they are more focused on front-of-process automation. Even robotics, which the baking industry has been slow to adopt because of upfront costs and a skills gap, seem to have become less intimidated, with 32% of surveyed bakers interested in purchasing a complete robotic system for primary packaging, 22% for robotic secondary packaging, and 24% in robotic palletizing.

As bakers embrace technology out of a desire to reduce reliance on labor, the packaging department represents the last holdout in these facilities. Technology advances have made packaging automation more accessible and cost-effective than ever before. This has created a perfect moment for baking companies to finally start adopting technologies they've been hesitant to in the past, and it's doubtful they'll back off anytime soon.

Modernizing Can Help Dairy Processors Optimize Operations

The nature of operations in dairy plants has significantly changed over the past few decades. Automation has contributed to increased efficiencies within plants producing dairy products. Industry players, from the farm to the processing plant, are adopting automation to streamline their processes.

Yet dairy remains one of the least automated industries, meaning it has the most to gain by embracing updated technologies. These upgrades will help dairy processing plants overcome challenges more effectively.

Every type of dairy processing requires a unique approach. Although more manual methods still work, they are less reliable and less profitable, according to experts. Failing to modernize could potentially hurt processors.

More companies are shifting toward overhauling old practices with more macro external pressures for the updates taking place. Not only are regulations playing a part, but there is also a push from outside the industry—consumers and other parties want to know more about agricultural supply chains and how they function.

“Dairy processors tend to underinvest in plant automation overall, and it is one of the big improvement opportunities for the industry,” says Chirag Pandya, a partner at business consulting firm McKinsey & Co. While sometimes a return-on-investment perspective can make such automation projects appear unappealing or challenging, he recommends considering the bigger picture. “In my view, some critical automation upgrades are some of the most important strategic projects dairy processors should be undertaking,”

Milk and milk products have been relatively low-margin businesses historically, with limited leverage for processors across most channels, Pandya notes. That’s why plant operations typically become a source of “distinctive strategic advantage,” he adds.

For example, if one processor is making a product at an overall equipment effectiveness (OEE) level of 65 to 70% and another is making the same product at 40 to 50% OEE, the cost structure would hold the second

company back, Pandya says.

Other risks that accompany choosing not to modernize include extra-long lead times for upgrades and new equipment, as well as 2022’s high inflationary environment. Even strategically critical projects would be delayed or overbudget due to those factors, which could further dampen a processor’s confidence in efficient capital deployment.

Failing to modernize involves an opportunity cost if companies aren’t as efficient in their day-to-day operations as a result.

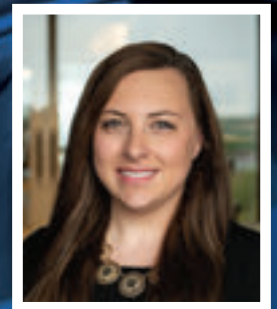
When it comes to dairy production, one of the key goals for many processors is to operate in a sustainable manner. Delivering safe, high-quality products isn’t just a goal, it’s the expectation. Implementing automation into processing facilities can play a major role in helping to achieve this goal by optimizing processes and reducing waste.

Whether a company is measuring its carbon footprint or utilizing its modernization efforts to back up sustainability claims that appeal to consumers, embracing technological innovations for the industry can be important to brand building, according to Scott Sexton, CEO for Dairy.com by Ever.Ag. He expects a constant drumbeat toward real-time digital transparency in the dairy industry. And while Sexton said he doesn’t know when precisely it will become essential, he feels “strongly convicted” that making modernization investments now will benefit companies in the long run.

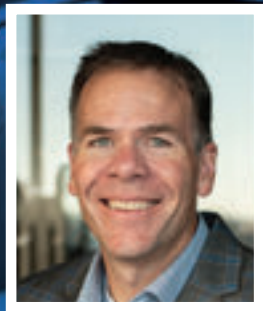
“You have to be looking forward and you cannot put your head in the sand and say, ‘We’re just going to keep doing it the way we did,’” he says. “You’ve got to start making investments because I don’t see the environment or the business climate going backwards.”

The most significant risks that come with not modernizing are the possibilities of losing competitive bids, having lower margins than competitors due to a higher cost burden, and—at the extreme end—going out of business as the product portfolio becomes obsolete or value-destroying for the processor.

VERTICAL PERSPECTIVES



KRISTEN PUTCH
Managing Editor
Dairy Processing



KEITH NUNES
Editor
Food Business News

Food and Beverage Manufacturers Seeking a New Normal

The past two years have whipsawed food and beverage manufacturers. The rapid COVID-19 global shutdown followed by the brisk pace of markets reopening around the world have led to increased consumer demand and unprecedented supply chain disruptions. Subsequent inflationary pressures brought on by the pandemic and the war between Russia and Ukraine have left many executives wondering what normal might look like in a year.

A defining characteristic of 2022 has been inflation. Food and beverage manufacturers have noted with regularity that their cost of goods has exceeded internal forecasts. Many see such inflationary pressures continuing through the rest of the year but, hopefully, easing as 2023 progresses. “Hopefully” must be used as a qualifier because a new COVID-19 variant or an escalation of the Russia/Ukraine war could lead to additional economic disruption around the world.

Despite the sharp rise in inflation, consumer demand remains robust. Branded manufacturers have noted with some frequency that elasticities remain below historical norms, particularly when compared to the Great Recession. There are some indications consumers are becoming more cost-conscious as some branded companies feel pressure from private label, but many food and beverage CEOs have expressed confidence in their companies weathering current economic conditions.

“Private label is either flat or down in the vast majority of our markets, and shoppers say they are much less likely to switch to private label in chocolate and biscuits compared to other categories,” said Dirk Van de Put, CEO of Mondelez International, during a July conference call to discuss first-half results.

Van de Put’s sentiment was echoed by Diego Gaxiola, CFO of Grupo Bimbo, when he noted in July that the grain-based food manufacturer hadn’t seen consumers trading down and demand remained strong.

Supporting consumer demand has been the health of the American consumers’ pocketbook. COVID-19 stimulus funds combined with higher wages brought on by a tight labor market have allowed many people to continue spending even as inflation has reached a 40-year high. But the strength of consumer spending has been a double-edged sword.

Attracting and retaining employees in the current labor market has been challenging, to say the least, for most employers. Throughout the supply chain, from the fields where crops are harvested to manufacturing plants, through the distribution system and into supermarkets and foodservice outlets, companies are struggling to fully staff operations.

Staffing shortages combined with the supply chain challenges have forced most companies to scale back innovation and focus on keeping customers stocked with the fastest-moving stock-keeping units. At retail, the regular shelf resets retailers initiated in the past have become less frequent. The focus of many retailers has been on keeping shelves stocked and rebuilding inventory. At foodservice, rising prices are forcing operators to rethink menus. Many are more likely to remove items from a menu to better manage costs than add new ones.

Companies have responded to all the macroeconomic issues buffeting the industry by pulling familiar levers like raising prices and improving efficiencies, and by investing in new capabilities like artificial intelligence (AI). The digitization of marketing, operations, purchasing, and supply chain is allowing manufacturers to develop a more granular view of their business and make small but impactful changes. Greater use of AI will not relieve macroeconomic pressures, but it does give manufacturers greater insight and control.

Another blunter tool used by management teams has been the divestment of non-core assets. Mondelez plans to divest its developed market gum and Halls business and TreeHouse Foods has put its Meal Preparation business under review. General Mills has been very busy on this front, divesting its Helper and Suddenly Salad businesses to private equity firm Kelso & Co., and it has divested its European Union Yo-plait as well as its European dough businesses.

Terms most often used to describe current food and beverage market conditions include *unprecedented* and *uncertain*. Heading into 2023, many forecasts call for supply chains to slacken and inflationary pressures to ease. The new normal might see the unprecedented aspects of the past few years fade and leave operators to continue managing through uncertainty.

Meat and Poultry Processors Face More Headwinds

The past 12 to 18 months have been a blend of challenges and opportunities for the meat and poultry processing industry, which continues to recover from the volatility related to the global COVID-19 pandemic that dated back to early 2020. In the height of the pandemic that year and into 2021, many processing plants were forced to shut down temporarily, consumers' buying habits turned heavily toward retail, and many restaurant owners either tapered their operations or were forced to close. The pandemic shined a light on the vulnerability of the food supply chain and some of the negative consequences are still lingering today and will likely continue for the foreseeable future.

In more recent months, however, new market challenges have emerged in the wake of some significant recovery from the pandemic among most stakeholders in the meat and poultry processing segment. This past year has seen processors reeling from widespread drought as well as threats posed by resilient animal diseases, including African swine fever and highly pathogenic avian influenza.

Consumers, meanwhile, are suffering from sticker shock as food prices, gas prices, and the overall cost of living have spiraled to historic highs, with many questioning the integrity of the companies supplying goods and services of all kinds.

As *Meat+Poultry* reported this past April, the past two years' economic downturn hasn't gone unnoticed by consumers. Shopping behaviors reflect the ripple effect, according to findings in the 2022 Power of Meat study, which were highlighted in a webinar hosted by the North American Meat Institute and FMI – The Food Industry Association. The study, conducted by Anne-Marie Roerink, president of market research firm 210 Analytics, concluded that consumers are adjusting their meat purchases to ease pressures from inflation and supply chain disruptions, as 38% of shoppers acknowledged seeing more out of stocks and 21% said they see less variety. Additionally, 72% of respondents

said they have changed their retail meat purchases.

According to the study, 75% of consumers have noted higher meat and poultry prices and 43% see fewer promotions. In response, 61% said they save money by eating out or ordering in less and instead try to recreate restaurant experiences at home (62%).

While sales for many meat and poultry companies are up year over year, volumes and margins have suffered as most have been forced to pass their rising costs on to customers and consumers, which is well documented based on the rising price of retail items and menu prices at foodservice outlets.

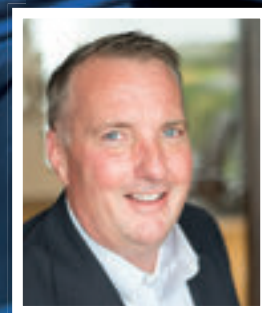
According to the Bureau of Labor Statistics (BLS), year-over-year food prices for the 12 months ending April 2022 reflect an increase of nearly 11% compared to the same period in 2021, the biggest jump since 1981. Prices for meat, poultry, eggs, and fish ticked up even more (14.3%) since April of last year, marking the biggest jump in prices in 43 years.

Processors find themselves in a "Don't shoot the messenger" posture as they are forced to pass along higher prices, including companies like Tyson Foods. In its recent earnings report, Tyson said that in the first nine months of fiscal 2022, it saw feed ingredient costs soar more than \$430 million over the same period the previous year.

Consumers have realized the lack of bang for the buck they are getting for pork and especially beef as of late, causing a trend toward trading down for more affordable options, like chicken. Through the first quarter of 2022, beef prices rose 16% compared to last year while pork increased just over 15% and chicken was up just over 13%, according to BLS.

Executives at poultry companies like Pilgrim's Pride recognize the appeal of poultry during economically challenging times. "Chicken still remains the most affordable, flexible and available option relative to the other proteins," said Fabio Sandri, Pilgrim's CEO, commenting on the company's 2022 first quarter performance.

VERTICAL PERSPECTIVES



JOEL CREWS
Editor
Meat+Poultry

Bakers Navigate Inflation While Satisfying Specialty Demand

Well into the third year of the COVID-19 pandemic, grain-based food companies found themselves contending with the highest cost inflation in a generation, severe labor shortages, and whipsaw fluctuations in the commodities markets, while coping with the reality that year-over-year volume sales of bread and per capita consumption of flour continue to decline.

Bakers successfully raised prices to pass along some of the inflated input costs. As Flowers Foods enjoyed record results in the first quarter of 2022, the company said a price increase in the first quarter helped offset surging commodity costs and accounted for essentially all the sales increases. The company grew market share to a new quarterly record with its fresh packaged sales gaining share on the strength of Nature's Own, Dave's Killer Bread, and Canyon Bakehouse brands.

Of concern to bakers in the past year was the shift away from sliced packaged bread. With bread sales retreating following the pandemic-fueled surge in 2020-21, dollar sales of bread in the 52 weeks ended Feb. 20 were \$9.05 billion, down 2.5% from a year earlier. More unsettling was the decline in unit sales, which in the 52 weeks ended Feb. 20 fell 8.3% to 3.22 billion.

Reflecting the continued erosion of market share commanded by private label bread, new product introductions were heavily centered within companies' premium and super premium brands. For example, Flowers introduced several items in its indulgent line of Nature's Own Perfectly Crafted Brioche Style products.

Grupo Bimbo saw resilient consumer demand in the face of steadily rising prices, perhaps more resilient than expected. "We haven't seen consumers trading down as demand continues to be very strong, and it is reflected in our volume growth," said CFO Diego Gaxiola during a July 21 conference call.

Health and wellness appeared to be a driver for many of Bimbo's new product introductions over the past year.

While bread sales over the past year were down in dollar sales, overall baked food sales were up 5.7%. Several categories enjoyed double-digit gains.

Hostess Brands snack products delivered strong first-quarter results with access to growing snacking occasions lifting sales. "Our sweet baked goods point-of-sale led by the Hostess brand posted its second consecutive quarter of more than 20% growth," said Andrew P. Callahan, president and CEO.

Still, a trend away from flour-based foods was evident in data showing per capita consumption of flour in 2021 fell to 129.2 lb, the lowest level since 1989. Per capita flour consumption has fallen six of the past eight years. The decrease in consumption followed an unusual gain in 2020 of 1.3 lb, to 132.1 lb. Per capita consumption in 2021 was down 1.6 lb from 130.8 lb in 2019, which had been the low-water mark in recent years.

Mondelēz International continued movement into grain-based food segments outside of its historic position in biscuits and crackers, most recently acquiring Clif Bar in June for \$2.9 billion. It was Mondelēz's ninth acquisition since 2018. Other companies acquired include Ricolino, Chipita, Gourmet Food Holdings, Hu, Give and Go, Perfect Snacks and Tate's Bake Shop.

Following several years of planning, the Grain Foods Foundation terminated its multi-year effort to launch an eight-figure baked foods checkoff program. In the aftermath of the effort, questions have emerged over how the industry will promote and defend grain-based food products in the future. Meanwhile, the Grain Foods Foundation has continued supporting research to demonstrate the role foods containing both enriched flour and whole grains should play in a healthy diet.

It seems a dramatically shifting industry landscape awaits the next leader to be named president of the American Bakers Association (ABA), as Robb MacKie announced in June his intentions to retire at the end of 2022. MacKie, who has held the top position at the ABA since 2006, said he will stay on with the organization for the next several months "to ensure a highly successful International Baking Industry Exposition (IBIE), which ABA co-owns." His successor will become instrumental in determining the outlook for grain-based foods and how the industry reshapes itself in the coming years.

VERTICAL PERSPECTIVES



JOSH SOSLAND
Editor
Milling & Baking News

Pet Food Production Increases as Owners Add More Pets

Pets are more popular than ever. And as the love for pets grows, so does the pet industry. Research by the American Pet Products Association (APPA) showed pet ownership on the rise in the U.S. The APPA 2021-2022 National Pet Owners estimated 70% of households now own at least one pet.

A survey conducted in February 2022 by research company Statista showed that 14% of respondents acquired a new pet during the pandemic—that's double the number of people reporting they got a new pet in May 2020.

With pet ownership increasing, pet industry sales are naturally on the rise. In 2021, pet industry sales in the U.S. hit the highest level in history. APPA announced the industry reached \$123.6 billion in sales—the second consecutive record-setting year after the industry reached \$100 billion for the first time in 2020. The association was anticipating a 6% increase in 2021 but instead achieved a 13.5% increase in year-over-year growth.

"The numbers don't lie—the pet industry has shown itself to be incredibly strong and resilient with a record-breaking two years," says Anne Ferrante, APPA senior vice president of member relations and business development. "We expect continued growth as we look toward the remainder of 2022, although we anticipate it may be at a more moderate pace given the impact of volatile factors like inflation, supply chain issues, and global relations."

Every category of the industry, including pet food and treats, experienced increased growth.

- \$50 billion was spent on pet food and treats.
- \$34.3 billion was spent on veterinarian care and product sales.
- \$29.8 billion was spent on supplies, live animals, and over-the-counter medicines.
- \$9.5 billion was spent on other services, including grooming, dog walking, and boarding.

But not all pet owners are the same. Pet parents from different generations have different attitudes and behaviors toward their pets, which they express with

their purchasing habits. Millennials continue to be the largest segment of pet owners at 32%.

APPA's "Generational Report" showed that Gen Z and Millennial consumers have the highest percentage of online purchases and are more likely to purchase pet care items via online subscriptions. They are also more willing to try new pet foods, treats, and toys than older consumers. However, Gen X and Baby Boomers, despite the changing economic conditions following the pandemic, continue to spend more for food and veterinarian care than younger pet owners.

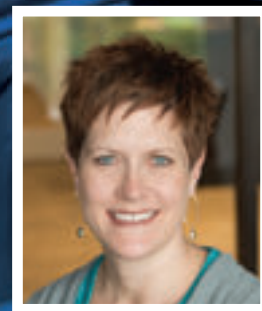
Recognizing the ongoing increase in pet ownership and the rise in pet-related purchases, pet food and treat processing operations are continuing to grow with both new plant builds and facility expansions. In the first six months of 2022, *Pet Food Processing* reported on 42 new facility announcements, investments, and expansions.

Notable investments and expansions include: Carnivore Meat Company acquired its fourth facility in Green Bay, Wis., in January; Mars Petcare announced a three-year investment of \$100 million in an expansion of its plant in Mexico; in April, Tuffy's Pet Foods opened its new wet pet food cannery inside its treat facility in Delano, Minn.; Nestlé Purina Petcare opened its new state-of-the-art factory located in Rayong, Thailand, in June; and Nutramax detailed plans for a \$30 million expansion of its Lancaster County, S.C., facility in mid-June.

On the supplier side, Trouw Nutrition cut the ribbon on its new Blending Innovation Center in Highland, Ill., in April; also in April, GA Pet Food Partners invested \$104 million in its new ingredient facility; Symrise Pet Food unveiled plans to build a new \$65.5 million headquarters in Greenwood County, S.C.; and Pilgrim's Pride broke ground on a \$75 million expansion of its existing facility in Douglas, Ga., to process chicken byproducts to use in pet food.

The pet food industry's growth shows no signs of stopping as pet ownership grows and new products are developed to feed that growing population.

VERTICAL PERSPECTIVES



KIMBERLIE CLYMA
Editor
Pet Food Processing



PACK EXPO International Returns With More Features Than Ever Before

IT IS MORE IMPORTANT THAN EVER for the packaging and processing industries to reunite for in-person events—and PACK EXPO International (Oct. 23-26, McCormick Place, Chicago) is the most comprehensive packaging and processing show in the world in 2022. In response to the unprecedented demands on the industry, PACK EXPO International 2022 will offer more features than ever before.

It is vital for the packaging and processing industries to come together and share innovations, connect with colleagues, hear from experts, and see machinery in action—and PACK EXPO International 2022 is the most efficient and effective way to do it all, offering solutions for over 40 vertical markets. No other event this year will showcase entire production line solutions and offer attendees everything needed to compete in a changing marketplace.

Visit www.packexpointernational.com to search suppliers and plan your visit to the show.

New at PACK EXPO International 2022

■ The Processing Zone and Innovation Stage

It's back and better than ever! The Processing Zone returns to PACK EXPO International in 2022 with the widest variety of food and beverage processing equipment. In today's manufacturing environment, processing and packaging are integrated systems, making it critical to bring both solutions under one roof. Start your search for front-of-the-line solutions such as homogenizing, heat treating, forming/sizing, and coating in The Processing Zone.

Attendees will discover solutions to increase efficiency, achieve total system integration, and ensure safety. Visit The



EXHIBIT LOCATION/HOURS

OCTOBER 23-26, 2022

**McCormick Place Convention Center
Chicago, Ill.**

**9 a.m.-5 p.m. Sunday, Monday, and Tuesday
9 a.m.-3 p.m. Wednesday**

Processing Zone in the Lakeside Center at PACK EXPO International 2022. The Processing Zone will be located at Booths LU-7000 to LU-7799.

New in 2022, the **Processing Innovation Stage** (Booth LU-7130) will focus on the latest food and beverage processing breakthroughs. Conveniently located in the Processing Zone, no additional registration is required for attendees to take a break from the show floor and learn something new. Visit pfgo.to/7682 for more information.

■ PACK to the Future Exhibit

Go PACK to the Future in an interactive exhibit new to PACK EXPO International. PACK to the Future celebrates the role of packaging and processing through history, and the impact it is poised to have on our future.

This curated exhibit includes historical equipment, materials, and photographs spanning 250 years, journeying through the evolution of packaging and processing, and highlighting how the industry developed alongside civilization. This exhibit will be in the West Building at Booth W-20001.

The **PACK to the Future Stage** will provide thought-provoking sessions on groundbreaking industry advancements and features free presentations by industry experts on advances in pharmaceutical and cannabis packaging, wireless factory automation,



sustainable alternatives, smart packaging, artificial intelligence, and more. The PACK to the Future stage will be in the West Building at Booth W-20025. Visit pfwgo.to/7681 for more information.

■ PACK Match at PACK EXPO International

This complimentary consultation makes its PACK EXPO International debut, providing attendees personalized, one-on-one guidance to locate targeted solutions. Whether an emerging brand or a well-established household name, PACK Match Advisors are available for 30-minute virtual consultations to connect attendees with the right suppliers. Attendees complete an online form to indicate their challenges and ensure they are matched with the appropriate industry expert to use the service. Once the match is made, attendees schedule a virtual meeting with their assigned PACK Match Advisor to receive non-biased guidance and recommended exhibitors to suit their business needs. Meetings will begin approximately three weeks prior to the show. *Assigned on a first come-first serve basis; meeting spots are limited.*



Visit pfwgo.to/7683 to register.

■ PACK Challenge

PACK Challenge, a brand-new packaging competition at PACK EXPO International, sponsored by PepsiCo, brings six high school teams together for a head-to-head machine-building competition. PMMI will provide a build-to-print snack filler machine kit, de-



signed specifically for this competition, along with an assembly (flight manual) to the qualifying teams.

Each team will assemble the snack filler to the specifications at PACK EXPO International, and have the flexibility to be creative with add-ons.

The winning school will be awarded \$6,000 for overall Best in Show, with an additional three categories to compete in: Filler Performance Gold Cup; Engineering Method/Most Innovative Filler Design, and Marketing/Sales. Afterward, the teams will take the machines back to their schools, providing future students the opportunity for hands-on experience.

Visit pfwgo.to/7684 for more information.

■ Industry Meets

The Industry Meets at PACK EXPO with targeted mini-industry events hosted by a record number of association partners as part of the Partner Plus Program. In addition, Association



Partner thought leaders will present the latest industry trends on the Industry Speaks stage throughout the show.

At the **Industry Speaks Stage**, you can hear from experts in the PACK EXPO Partner Program covering multiple industry verticals as they address the latest hot-button topics and industry trends, such as sustainability, remote access, supply chain solutions, augmented reality, operational efficiency, and more. The Industry Speaks stage will be located within the Association Partner Pavilion at Booth N-4565.



Brand New Pavilion at PACK EXPO International

■ The Logistics Pavilion

New for 2022! Logistics represent a crucial part of the product journey from manufacturer to consumer—and they're among the top five searches on the PACK EXPO website. With the boom in e-commerce, The Logistics Pavilion will be the place to find targeted solutions related to the supply chain, including warehousing, fulfillment, distribution logistics services, and transportation providers. Located in the North Building. Visit pfwgo.to/7686 for more information.



Free Show Floor Education

■ The Forum at PACK EXPO

Take advantage of free, unique, interactive learning sessions throughout PACK EXPO International. The Forum at PACK EXPO will feature 45-minute sessions, open to all attendees, on the latest industry trends. Sessions will be interactive, including activities, small group discussions, and Q&A sessions. Located in the North Hall at Booth N-4543. Visit pfwgo.to/7687 or browse the schedule to the right.



THE FORUM SCHEDULE 45-MINUTE SESSIONS

SUNDAY, OCTOBER 23

1:30 PM

Will Your Employees Prevent or Cause a Cyber Attack?

Ben Spencer - IT Manager, PMMI

2:30 PM

Troubleshooting Roadblocks on the Road to Sustainability Success

Stephen M. Perry, Ph.D. - Partner and Coach, FSO Institute - The Manufacturing Health People

3:30 PM

The Future of Manufacturing: Accelerated Digital Transformation

Spencer Cramer - Founder and CEO of ei3; OMAC Board Member

MONDAY, OCTOBER 24

10:30 AM

Accelerating Packaging Sustainability While Enhancing Desirability

Courtney Lorenz - Senior Director, Global Environmental Sustainability, SGK
Hope Massey - Director, Consulting Americas, SGK

11:30 AM

Mitigating Unplanned Downtime to Increase Profitability

Michael Warren - Founder and Chief Operating Officer, AsInt

1:30 PM

Understanding, Assessing, and Mitigating Cyber Risk in an Industrial Environment

George Forrester - Partner, AHT Insurance, a Baldwin Risk Partner
Michael Carr - Head of Risk Engineering, North America & Canada, Coalition

2:30 PM

Robots and Cobots, an Automated Future

Donna Ritson - President, DDR Communications

3:30 PM

Post-COVID-19 Packaging Design Trends

Soha Atallah - Vice President, World Packaging Organization (WPO)

TUESDAY, OCTOBER 25

10:30 AM

How Are Emerging Brands Engaging With CoMans/CoPacks to Maximize Their Profits and Accelerate Time to Market?

Ron Puvak - Executive Director, Contract Packaging Association

11:30 AM

The Challenges Facing Global Sustainable Packaging

Prof. Pierre Pienaar - President, World Packaging Organization (WPO)

1:30 PM

The Evolution of Automation

Jonathan Pipe - Senior Consulting Analyst, Interact Analysis
Adrian Lloyd - Research Director, Interact Analysis

2:30 PM

Cyber Attacks: Responding to a Breach

Andy Lomasky - Director of IT, PMMI

3:30 PM

The Six Traits of Highly Successful Emerging Brand/Contract Manufacturing Relationships

Carl Melville - President, Melville Group, on behalf of Contract Packaging Association

WEDNESDAY, OCTOBER 26

10:30 AM

Driving Packaging Line Performance

Ron MacDonald - Chairman at the Organization for Machine Automation and Control (OMAC) and Senior Principal Engineer at Nestlé Purina Research

11:30 AM

Cybersecurity and the IT/OT Gap

Daniel Maeyaert - VP of Manufacturing Operations, Fallas Automation

Student Opportunities

PACK EXPO International offers programs and activities aimed at getting students excited about careers in packaging.

- **Future Innovators Robotics Showcase**—See Chicago-area high school robotics teams showcase their design, engineering, and troubleshooting skills. Located in the North Hall at Booth W-21028. Visit pfgwo.to/7689 for more information.

- **The Amazing Packaging Race**—In this fun and educational event taking place the last day of the show (Wednesday, Oct. 26), teams from colleges and universities in North America race around the PACK EXPO International show floor to complete tasks at the Booths of participating exhibitors. Sponsored by Emerson. Visit pfgwo.to/7690 for more information.

- **CareerLink @ PACK EXPO**—CareerLink, PMMI's online job board, is going live at the show. This is an opportunity for PMMI members and CPA, OMAC, and IoPP member companies to meet with students and veterans pursuing careers in packaging and processing during one-on-one informational interviews to take place at the show. Visit pfgwo.to/7691 to register today.

Returning Pavilions at the Show

■ The PACKage Printing Pavilion

This exciting area in the South Building features digital printing and converting, labeling, and coding and marking technologies.

■ The Containers and Materials Pavilion

Big trends such as sustainability, recyclability, e-commerce, and consumer convenience have loomed large in recent years in this pavilion. Located in the West Building, it is a prime destination for companies looking to refresh a brand, launch new products, broaden appeal, and attract attention.

■ The Showcase of Packaging Innovations

Located in the West Building, The Showcase of Packaging Innovations (Booth W-20052) features winning entries from worldwide packaging competitions. The Showcase is sponsored by WestRock (Booth S-2130).

■ The Confectionery Pavilion

Home to the latest trends and technologies relating to aeration, batch refining, shaping, cluster production, and more. Located in the South Building (Booths S-2284 to S-2895) and sponsored by the National Confectioner's Association (NCA).

Located within the Confectionery Pavilion, PACK EXPO International attendees can network with peers, gain specialized insights, and rest their feet at the **Candy Bar Lounge**, hosted by The National Confectioners Association (NCA), and sponsored by Syntegon Packaging Technology. The lounge offers a place for casual networking and idea sharing. Located within the Confectionery Pavilion in the South Building.

■ The Reusable Packaging Pavilion

This pavilion, sponsored by the Reusable Packaging Association, showcases sustainable packaging solutions to help reduce



waste, cut costs, and gain supply chain efficiency. Explore reusable transport packaging products and services and see innovative re-use solutions from over 30 exhibitors. Located in Upper Lakeside at Booths LU-6700 to LU-6999.

■ PMMI U Workforce Development Pavilion

Located in the West Hall Concourse, this is PACK EXPO International's one-stop shop for resources to strengthen your current workforce and grow your existing workforce. Learn about PMMI U offerings, including popular training workshops. Schools will present mechatronics, packaging, and processing offerings, and you can meet students interested in careers in the industry.

■ Association Partner Pavilion

This pavilion houses leading associations dedicated to advancing the packaging and processing industry, offering significant resources, insights, and expertise all in one central location within the North Hall at Booths N-4510 to N-5101.

Visit pfwgo.to/7701 for more information on any of these returning pavilions.

Band Styx Headlines PACK gives BACK



PACK EXPO's annual event, PACK gives BACK, returns to PACK EXPO International bigger and better than ever! For the first time in its Chicago history, the event will be a musical performance, with headlining band Styx taking center stage at McCormick Place. Guests will

enjoy pre-show networking with refreshments and

WORKFORCE DEVELOPMENT



PMMI U is offering popular training workshops in Chicago to coincide with PACK EXPO International.

- **Risk Assessment Workshop:** Oct. 21-22, 2022
- **Certified Trainer Workshop:** Oct. 23-24, 2022
- **Fundamentals of Field Service:** Oct. 23-24, 2022

Visit pfwgo.to/7692 to register for PMMI U and login to browse and register for these workshops.

appetizers followed by a performance by the multi-megamillion-selling rock band. Styx draws from over four decades of barn-burning chart hits, joyous singalongs, and hard-driving deep cuts, such as Renegade, Come Sail Away, Lady, Blue Collar Man, Too Much Time on My Hands, Mr. Roboto, Fooling Yourself, and The Grand Illusion. Tickets are \$95 each (or buy nine and get the 10th free). Take advantage of the 10 tickets-for-the-price-of-nine deal to treat customers or business partners to the show. The event is sponsored by Rockwell Automation and proceeds benefit PMMI Foundation. Visit pfwgo.to/7695 to buy tickets and for more information.

The PMMI Foundation provides financial support for packaging and processing education throughout the U.S. and Canada. Since its inception in 1998, the PMMI Foundation has given more than \$2.3 million to strengthen the workforce within the packaging and processing industry.

PACKAGING & PROCESSING WOMEN'S LEADERSHIP NETWORK (PPWLN) EVENT

The Packaging & Processing Women's Leadership Network (PPWLN) serves to recruit, retain, and advance women's careers in packaging and processing. Each PACK EXPO, the PPWLN hosts a networking event addressing a timely issue facing women in the industry.

The annual PPWLN breakfast at PACK EXPO International will take place on Tuesday, Oct. 25, 7:30 to 9 a.m., in Room S-100 at McCormick Place. Hear from keynote speaker Dawn Hudson, former chief marketing officer at the National Football League (NFL) and former president and CEO of Pepsi-Cola North America, who has led an impressive career spanning high-level posts in media, retail, consumer goods, consulting, and healthcare at some of the biggest corporations in the world.

Drawing on her own diverse experiences, Hudson shares winning business strategies for women, including clean communication, emotional intelligence, leadership techniques, and tips for elevating your networking and negotiation game. Visit pfwgo.to/7693 to RSVP for the breakfast.

This year, the PPWLN networking event is sponsored



by Emerson, ID Technology, Morrison Container Handling Solutions, Plexpack, Septimatech Group and SMC Corporation of America. For more information on the network, visit pmmi.org/ppwln.

Young Professionals Networking Event

The Emerging Leaders Network will host an evening event for young professionals, sponsored by Beckhoff Automation, at Punch Bowl Social in downtown Chicago. Visit pfwgo.to/7696 to register for the networking event.

PACK EXPO Green

The PACK EXPO Green Program is the commitment of PACK EXPO and all its partners, vendors, and exhibitors working together to create a more sustainable world. Find information and resources to aid and advance your company's unique sustainability goals. Visit pfwgo.to/7698 to learn more about the Green Program.

Reusable Packaging Learning Center

Learn the latest trends and benefits of reusable packaging in the Lakeside Upper Building, Booth LU-6737. Discover how implementing a reusable packaging system can improve material han-

dling performance, reduce operating costs, create new economic values, and lower environmental impacts in your supply chain.

The Industry Meets at PACK EXPO

Industry Meets brings together industry partners and their audiences as they host their meetings, conferences, and receptions in conjunction with PACK EXPO International. The following are examples:

- 3-A's Hygienic Equipment Design Meeting
- Active & Intelligent Packaging Industry Association/Packaging Europe's Smart Packaging Event
- Chicagoland Food & Beverage Network's Reception
- Contract Packaging Association's Meet & Greet Reception
- Cold Pressure Council Annual Conference
- Institute of Packaging Professionals' Medical Device Packaging Class
- International Bottled Water Association's Annual Business Conference
- Flexible Packaging Association's Emerging Leadership Council & Reception

TECHNOLOGY EXCELLENCE AWARD FINALISTS: YOUR VOTE COUNTS!



The Technology Excellence Awards are back at PACK EXPO International 2022, and we need your help to select winners. The awards recognize exhibitors' innovative technology they have developed that has not previously been shown in the PACK EXPO family of events.

Voting will take place live starting when the show opens, on Sunday, Oct. 23 at 9 a.m. It remains open through 12 p.m. on Tuesday, Oct. 25. There are three ways to vote—in person, on the official show mobile app or online (visit pfwgo.to/7703) during the open voting time window. The winner of each category will be announced via a press release on Tuesday at the show.

General Packaging & Processing Finalists

- **Amcor Clear Anti-Grease Jerky Pouch.** This clear anti-grease film lets beef jerky and other meat snacks power up shelf appeal. Amcor Flexibles North America, Booth S-3705
- **Forvara Foodservice Films.** Forvara, a PE-based alternative, non-PVC foodservice film emulates vital characteristics of PVC film. Specialty Polyfilms (India), Booth W-27008
- **IMA Ilapak Vegatronic 6400.** Hygiene, accessibility, and efficiency differentiate the IMA Ilapak Vegatronic 6400 continuous motion vertical bagger. IMA, Booth S-2514

Food & Beverage Finalists

- **Maxpack 2023 MFT 7 Ultimate Range.** Company says this is the most versatile, rugged, and beautifully designed vertical f/f/s it has ever built. Maxpack Machinery, Booth S-2396
- **Proxima Tethered Closure.** Enhances closure recyclability for cold fill and aseptic applications, including still water and functional drink. Berry Global, Booth N-4727

- **Schoeller Allibert Corona 20-pocket beer crate.** This highly sustainable beer crate, used by Anheuser-Busch InBev, is made from reground HDPE, consisting of 91% recycled plastic. Schoeller Allibert, Booth LU-6820

Sustainability

- **ClipCombo.** Equipment runs two different paper-based multipack styles on the same machine, with rapid changeovers and high speeds. Graphic Packaging International, Booth S-1730
- **Recycle-Ready Chevron Pouches.** This recycle-ready medical device pouch consists of a PE-based laminate paired with uncoated Tyvek. Amcor Healthcare Packaging, Booth W-16031
- **Wave 2-cc dispenser.** This recyclable lock-up atmospheric dispenser is a more sustainable version of a popular personal care product pump format. Berry Global, Booth N-4727

- MHI Seminar and Reception
 - National Fluid Power Association's Fluid Power Forum
 - The Organization for Machine Automation and Control's Meeting
- Visit pfwgo.to/7697 to learn more about Industry Meets.

Just Can't Attend in Person? Attend Online!

For those who are unable to attend PACK EXPO International in person, limited aspects of the live event will be available online. Registration for PACK EXPO Xpress is \$30 (if you register by Sept. 30) and gives you:



- Access to create a personalized schedule via My Show Planner
- Ability to search products and exhibitors, including matchmaking capabilities and opportunities to connect with exhibitors in their online showrooms
- On-demand access to some educational content during and after the show
- You also have the ability to upgrade your registration to attend in person for no additional fee if you register by Sept. 30. Upgrades to in-person attendance after Sept. 30 will cost \$130.

Visit pfwgo.to/7700 to register for PACK EXPO Xpress.

If you're able to upgrade your Xpress registration to in-person, you'll be happy you did. New technologies, solutions, and education addressing the changing landscape of packaging and processing will be on display. No other event in 2022 will bring together a more comprehensive gathering of suppliers offering new products, technologies, and solutions. It's where executives and plant manag-

EMERGING BRANDS SUMMIT

The Emerging Brands Summit, brought to you by PMMI Media Group, will launch at PACK EXPO International 2022 as a one-day event featuring educational content and tabletop exhibits. This new program is aimed at founders and leaders of startup manufacturing companies looking to scale their brands to larger production through either in-house facility build-out, or outsourced relationships with contract manufacturers and packagers. Exhibitors will include packaging machinery, packaging materials, processing equipment, and contract manufacturing and packaging. The Emerging Brands Summit will occur on Sunday, Oct. 23, from 8:45 a.m. to 5:30 p.m., at McCormick Place, Chicago, Room S-100. Visit pfwgo.to/7699 to learn more.



ers, engineers, brand managers, and packaging designers come to see machinery in action, connect with suppliers, network, and gain the latest perspective on a plethora of industries.

To learn more and to register, visit www.packexpointernational.com. Registration for the show is \$30 until Sept. 30, after which it increases to \$130.

PLAN AHEAD, DOWNLOAD THE PACK EXPO INTERNATIONAL MOBILE APP

Download the PACK EXPO International Mobile App, sponsored by ProMach, to your smartphone in advance of the show to start developing your show plans.

- Free to download and use
- Search exhibitors, products, and sessions
- Create and save a personal agenda
- Use an interactive mapping tool
- Engage with My Show Planner (below)

MY SHOW PLANNER

Attendees should also visit www.packexpointernational.com, where they can view floor plans, search exhibitors by keyword or product category, schedule meetings in advance with exhibitors, and more. To keep track of all the new additions as well as old favorites, attendees can use My Show Planner to check the schedule of booth activities, add itinerary sessions, and plan routes around the show floor.





INNOVATION STAGE

The Innovation Stages at PACK EXPO International bring you the latest advances taking place across the industry. Check out these 30-minute sessions to discover coming trends and technologies that need to be on your team's radar.

Schedule as of August 24, 2022

SUNDAY, OCTOBER 23, 2022		
12:00 PM	Baking Sustainability Into Your Operations	Schneider Electric
	Digital Double Life: The Intersection of Tech and Business	Specright
	The Future of Recycled Food Packaging and Closing the Loop	Klöckner Pentaplast
1:00 PM	Get More From Your Machine Using the Data You Already Have	Rockwell Automation
	How E-commerce Packaging Trends Can Support Sustainability	Felins
	Intell-I-Mag The Revolutionary Intelligent Magnet	MPI
2:00 PM	Broadening the Pipeline of the Industry/Academic Partnership	Michigan State University
	Complete Automation Solutions to Enhance Line Flexibility	Bosch Rexroth
	Power Your Performance: Integrated Solutions by Design	Honeywell Intelligrated
3:00 PM	Rethink Responsibly	TekniPlex
	Taking Action: A Packaging Roadmap for the Circular Economy	Dassault Systèmes

MONDAY, OCTOBER 24, 2022		
10:00 AM	Intelligent Plastic for the 21st Century	Smart Plastic Technologies
	Looking Beyond XR, and Getting Back to Reality	Rockwell Automation
	The Path to Becoming a Green Smart Factory	Schneider Electric
11:00 AM	Minimize Supply Chain Disruptions With Innovative Technologies	Acumatica
	Recycle-Friendly Washable Inks for Plastic Packaging	Sun Chemical
	Scaling Sustainable Packaging With Automation	WestRock
12:00 PM	Low-Carbon Muffins With GreenStruxure and Bimbo Bakeries	Schneider Electric
	Remote HMI Mirroring: Handling Workforce Shortage Visibility	Belden
	Sustainability in Pharmaceutical Primary Packaging	Liveo Research
1:00 PM	Enable Recyclable Packaging With Open Sesame Tear Tapes	H.B. Fuller
	How to Add Automation at No Upfront Cost	Formic
	Tackling Packaging Challenges and Pressures	Fresh-Lock by Presto
2:00 PM	Achieving More Together for a Sustainable Future	Berry Global
	AI-based Robotic Grasping	Siemens Industry Software
	Streamline Your Package Labeling Process	Epson America
3:00 PM	Case Study: Advancing Sustainability in a Changing World	Ancor Flexibles North America
	The Joy of the Physical in the Digital Age	Sappi North America
	The Value of Digital Transformation	Matrix Technologies

INNOVATION STAGE SCHEDULE

TUESDAY, OCTOBER 25, 2022

10:00 AM	Buzzword Hangover	Brightly Software
	How to Automate Paper-based Packaging Solutions	Graphic Packaging International
	Mechatronic Case Packing Transforms Frozen Food Production	Beckhoff Automation, Brenton (a ProMach company)
11:00 AM	3D Vision, Soft Gripper and AI Automation Solution	Soft Robotics
	Closing the Loop	Cabka North America
12:00 PM	Reduce Waste and Increase Efficiency in Clean-in-Place Process	Emerson
	Thinking About the Box	Packsize
1:00 PM	Building Your Cyber Resilience Program	Rockwell Automation
	Combat Labor Issues With Flexible Robotic Automation	Mitsubishi Electric Automation
	Is the World Ready for Sustainable Packaging?	Industrial Physics
2:00 PM	Re-invent Supply Chain Inspection With 3D mmWave Imaging	ThruWave
	Shelf-ready Labeling That Marketing/Operations Can Agree On	Felins
	Using Supply Chain Traceability to Combat Counterfeiting	Antares Vision Group
3:00 PM	Addressing Convenience Trend With Retort Pouches	H.B. Fuller
	Simplifying the Complexities of Labelling and Artwork in the Pharma Industry	Esko Brand Solutions
	Success for Vision Systems Deep Learning Implementation	Verista

WEDNESDAY, OCTOBER 26, 2022

10:00 AM	Cybersecurity Best Practices in a Connected IIoT World	Schneider Electric
	Pests to Watch Out for as Moisture Levels Fluctuate	Orkin
	The Rise of Software as a Service	Rockwell Automation
11:00 AM	Leak Testing for Micro-organisms in Medical/Pharma Packaging	Inficon
	OxyStar - The First Recyclable Barrier Material	Placon
	Recyclable and Recycle-Ready Packaging for the Dairy Market	Ancor Rigid Packaging
12:00 PM	Fresh Food To-Go and the Circular Economy	ProAmpac
	Pick and Place Reinvented	Syntegon Packaging Technology
	Smart Sensors: The Backbone of Digital Transformation	Sick



Schedule as of August 24, 2022

SUNDAY, OCTOBER 23, 2022

12:00 PM	Electric Actuator Beats Pneumatic—Price, Speed, and Life	SMAC Moving Coil Actuators
4:00 PM	Sustainability Excellence in Manufacturing Awards	Conagra, Smithfield, Bob's Red Mill

MONDAY, OCTOBER 24, 2022

10:00 AM	Efficient COP Using New, Advanced 3-A Cabinet Washers	Sani-Matic
11:00 AM	Food Safe Facility Drainage Design	FoodSafe Drains
12:00 PM	Smart Tablet Coating Technology	Romaco Group
1:00 PM	MasterBio - All Compostable Materials for Fresh Products	Masterpack
2:00 PM	Trends in High Pressure Processing (HPP)	JBT - Avure HPP
3:00 PM	Evolution Fresh – HPP Beverage Automation Advancements	Hiperbaric

TUESDAY, OCTOBER 25, 2022

10:00 AM	Enteral Feeding – Direct Connect Nutrition Delivery	Vonco
11:00 AM	Innovative Solutions Create R&D Partnerships	Deville Technologies
12:00 PM	Batching and Blending Optimization in the Beverage Industry	Tetra Pak
1:00 PM	Buying a Separator Machine? Avoid These 5 Costly Mistakes	Gerard Daniel Worldwide
2:00 PM	Stick the Landing: 5 Product Handling Ideas to Win Processing Gold	Power Engineer
4:15 PM	Manufacturing Innovation Awards	Sugarlands, United Airlines Catering



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CLEAN WATER TECHNOLOGY (CWT) has offices and partners in over 18 countries with over 900 installations since 1996. Founded by scientist and engineers, CWT's flagship technology, the Gas Energy Mixing (GEM) System, is a unique flocculation and flotation technology that outperforms conventional dissolved air flotation (DAF) and clarification systems.

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Charlottetown Metal Products (CMP)

2744 North York River Road, Milton, PEI, Canada, C1E 1Z4

Phone: 800/461-6877 Email: cmp@cmpequipment.com

www.cmpequipment.com

CMP is a proud member of the Food Process Solutions Corp. family. Based in Charlottetown, PEI, Canada, over 25 Engineers, 100,000 square feet of state-of-the-art manufacturing, and an in-house Installation Team provide our global customers with turnkey food processing solutions. Backed by FPS, our End-to-End Solutions are seamlessly incorporated into the process line leveraging innovative hygienic design, integrated controls, and precision manufacturing with a custom engineering approach to meet our customers' needs. We Engineer Food Safety.

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- DirectDrive™ Technology Spirals from 12" wide up to 72" wide
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- Exclusive belting turn ratios for smallest footprint possible
- Backed by our parent company FPS, the industry leader for spiral innovation and hygienic standards, and Intralox, the global giant in belting known for their service, technology



CMP
We Engineer
Food Safety

E.A. Bonelli + Associates, Inc.

8450 Edes Ave. • Oakland, CA 94621 • USA

Phone: 510/740-0155 Email: eab@eabonelli.com

www.eabonelli.com

E.A. Bonelli + Associates is a leader in the master planning and design of processing plants, cold storage warehouses, and distribution facilities for the food and beverage industries.

Since our founding in 1960, E.A. Bonelli has focused exclusively on these sectors, combining a client-oriented approach with a wealth of experience to find proven solutions regarding space-planning, food safety requirements, and architectural and engineering design.

E.A. Bonelli has designed plants across North America, with a track record that ranges from small remodels to some of the largest expansions and newest plants in the United States. We have consistently been on the forefront of industrial architecture and engineering, meeting food & beverage trends by coupling practiced experience with design innovations. We understand processing environments and recognize the importance of zone separation for optimal hygienic and sanitary design.

E.A. Bonelli's integrated design services provide architectural, structural, and MEP engineering. We recognize that our job is to design a building environment that is both efficient and hygienic, in which safeguarding the client's process is of paramount importance.

Over the course of more than six decades in business, E.A. Bonelli has grown considerably, from a San Francisco-based architectural office to a firm that now proudly provides support to our customers from offices across the United States. In addition to our Oakland, California, headquarters, EAB operates offices in Fresno, CA, Portland, OR, Denver, CO, and Holland, MI.

Even as E.A. Bonelli has continued to grow, our focus remains firmly rooted in the vision of our founder: client-focused, hygienic design for the food & beverage industries.

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The FPS RMS is an offering that helps solve customer needs. Not only is data critical to the performance of the freezer, it provides customers access to information quickly and easily at times where troubleshooting needs to be 24/7.

The FPS RMS provides critical data at your fingertips including:

- Trends
- Alarm History
- Maintenance
- Report Journals
- Troubleshooting
- Training
- Live Feed and More

Licensed by FPS, all our customers' information is confidential and secure on the platform.

Each freezer has a separate database schema, separate identity provider and separate website link which ensures only users and FPS authorized personnel are the only people who can access data from that freezer.

Benefits include:

- Improved OEE/capacity/throughput due to less downtime
- Improved customer independence helps reduce operational expenses
- Improved training/maintenance features to support end customers
- Reduced number of service calls by providing more data insights for end customers

For more information about the FPS RMS:

email: service@fpscorp.ca

phone: North America: +1 (877) 710-8660

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HPP Automation Systems



Hiperbaric - High Pressure Processing

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Phone: 305/639-9770 Email: marketing@hiperbaric.com

www.hiperbaric.com

Hiperbaric is the global leader of High Pressure Processing (HPP) equipment for the food and beverage industry.

HPP technology is a non-thermal processing technique by which products are subjected to a high level of isostatic pressure to inactivate foodborne pathogens such as salmonella, E. coli and Listeria, extending the shelf life considerably, without adding any preservative to the original product.

HPP preserves the quality of fresh food, opens opportunities to new markets for clean label products due to the extension of shelf life and protects brands against recalls.

Hundreds of companies worldwide use Hiperbaric equipment for the processing of juices and beverages, meat, fish and shellfish, fruits and vegetables, dairy and prepared dishes. A highly versatile technology, HPP can be applied to a wide range of foods.

With world headquarters in Spain, the company also has an office in Miami to serve the Americas.



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High pressure processing (HPP) technology is a non-thermal processing technique by which products, already sealed in their final package, are subjected to a high level of isostatic pressure transmitted by water.



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Marchant Schmidt is a global leader in the manufacture of Industrial Food Cutting Solutions. For more than 50 years, we have made the most robust equipment to maximize your return on investment.

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From our multi-building complex in the south suburbs of Chicago, Quantum Technical Services- a US technology company- has evolved over the past three-plus decades to become the go-to innovator enabling wholesale frozen pizza manufacturers to fully automate their topping lines.

Our integrated handling and food processing equipment is also making waves in the flourishing segments of prepared meals and baked goods.

We manufacture high speed, automated portion and apply systems. Utilized in the wholesale frozen pizza, prepared meals, and bakery industries, our systems are used to apply sauces, cheeses, IQF vegetables, meats, dry/granular ingredients, and a variety of other toppings.

We offer standard production systems, as well as custom designed equipment for various production requirements. Our in-house engineering team works closely with customers to create the best solution for each application. The sanitary, easy-to-use, streamlined design of our equipment sets the standard in the industry.

Incorporated into every Quantum machine is high speed, non-contact application, and highly durable stainless steel construction. Our machines are wash down capable, and have an easily accessible open, no-tool design for easy sanitation.

• TARGET SAUCE PORTION AND APPLY SYSTEMS

Quantum Target Sauce Applicators apply a consistent deposit with a sauce-free border. High quality and accurate weight control are features of all Quantum sauce applicators.

• TARGET and WATERFALL PORTION AND APPLY SYSTEMS

Quantum Target Applicators and Waterfall Applicators are available with automated feed and recirculation systems to ensure consistent deposit portions.

• PEPPERONI SLICER PORTION AND APPLY SYSTEMS

Quantum pepperoni slicer / applicators are servo driven to provide precise deposit patterns and are available in many configurations to meet volume requirements.

Quantum has supplied production equipment since 1991 to satisfied customers ranging from small wholesalers to large manufacturers. We pride ourselves on the quality and durability of our products.

For assistance or to learn more about how Quantum can serve your needs, please contact us at www.q-t-s.com, or 815-464-1540.



Sani-Matic, Inc.

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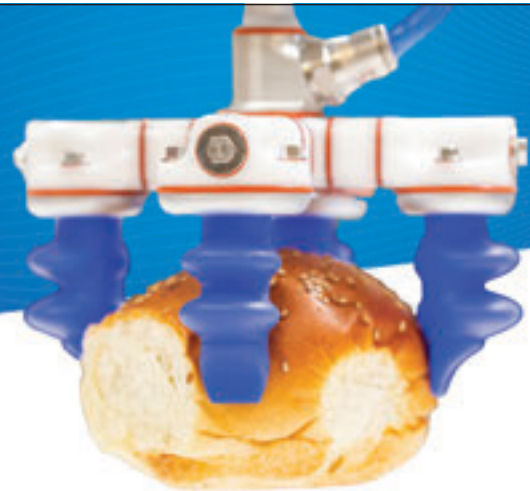
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Soft Robotics is an industry-leading technology company that designs and builds automated picking solutions using proprietary soft robotic grippers, 3D machine vision and artificial intelligence software. The company's transformational robotic automation solutions enable picking of single and bulk products at high speeds – solving supply chain issues and eliminating the reliance of human workers to maintain operational efficiencies. With hundreds of systems in daily operation worldwide, our picking technology has achieved billions of successful picks in global production facilities.

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Spokane Stainless Technologies is headquartered in Spokane Valley, Washington, USA.

We are a stainless-steel equipment manufacturer specializing in custom engineered tanks, vessels, and equipment. We service a wide variety of industries in addition to processing and packaging including water, wine, distilled spirits, aerospace, defense, biochemical, pharmaceutical, cosmetics, and agriculture. This experience enables new ideas that can be cross-pollinated to provide innovative solutions to the processing and packaging industry.

Our engineering team is the foundation of our commitment to customers. Using state-of-the-art solid modeling tools, we embrace customer challenges, imagining innovative solutions that are on the leading edge. We provide ASME Pressure/Vacuum Vessel & UL Code certified design. If product support is required, our team will assist you and get the issue resolved quickly! We are committed to your complete satisfaction.

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MDL40008SS Combustible Dust Vac



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Phone: 844-877-2435 Email: info@urschel.com

www.urschel.com

New from Urschel, the M VersaPro™ (MVP) Dicer. The dicer excels in processing of meat, poultry, and alternative proteins. Offers 33% increased feeding capacity versus the standard M6 due to wider belts, optimized cutting, and increased horsepower. IP69K certified electrical enclosure features a double-sealed door for extra protection during washdowns. Mechanical zone is isolated from the product zone to promote sanitation. Stainless steel construction throughout with solid, round bar frame, motors, and hinged panels. New patented, fluted crosscut option provides gentler cutting action. Available intuitive touchscreen HMI optional.

View the DiversaCut 2110A® Dicer with built-in discharge conveyor. The conveyor facilitates batch processing into totes or onto conveying systems or platforms and eases routine servicing by maintaining the machine at floor level.

Stop by to see the new Comitrol® Processor Model 1700 equipped with an optional HMI. HMI benefits include the ability to identify misaligned sensors, soft start faults and fixes, total machine runtime, motor loads and overfeeding issues, and remote start/stop when connected to a control center.

Also on display, the Affinity® Integra-D U.S.D.A. Dairy Division accepted dicer, E TranSlicer® Cutter with built-in discharge conveyor, the Sprint 2® Dicer with built-in discharge conveyor, the TranSlicer® 2520 Cutter, and the MicroAdjustable® (SL-14) CC Slicing Head which features SlideLocc™ technology.





New Protein Powerhouse +33% Higher Capacity

Meet the next generation protein powerhouse. The new M VersaPro™ (MVP) Dicer provides sanitary (IP69K) design and the ultimate in the versatile cutting (VFD-equipped 5HP Crosscut) of proteins.

The MVP takes protein processing to another level complete with new fluted, patented gentler crosscut, deeper circular knife penetration, infeed and takeaway belts, and many other built-in

benefits. Easy maintenance in an engineered simple design, the new MVP outperforms the standard M6 with a resounding **33% increased feeding capacity**. Explore the MVP to improve your line.



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VDG (Van der Graaf)

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Phone: (888) 326-1476 Email: info@vandergraaf.com

www.vandergraaf.com

VDG is the leader in the design and manufacturing of drum motors for all types of belt conveyor applications. With a strong focus on reliability and longevity, VDG has provided robust and efficient conveyor drive solutions to the material handling and food processing industries for over 35 years through innovation, R & D, and precision manufacturing. Manufacturing in-house in USA and Canada, using cutting-edge production technology, VDG ensures product quality, fast delivery and exceptional customer support.

The high-efficiency VDG Drum Motor encloses all drive components, including the motor, gear reducer, and bearings, inside the drum, increasing mechanical and electrical efficiency, optimizing space, and promoting operator safety. All components are designed for 80,000 hours of continuous operation before maintenance, reducing operational and maintenance costs and increasing productivity. VDG Drum Motors are available in a range of diameter sizes, belt speeds, horsepower and industry specific options and features to suit various belt conveyor applications.

The IntelliDrive™ Drum Motor features new synchronous permanent magnet motor technology, delivering 40% increased electrical efficiency with much wider belt speed selection without loss of torque compared to a standard induction motor. With all drive components housed internally, the IntelliDrive™ achieves a 96% mechanical efficiency, further decreasing energy consumption and costs.

For sanitary belt conveyor applications, the hygienic SSV Drum Motor has the belt profile machined directly onto the all-316 stainless steel drum and drives modular conveyor belts without the use of sprockets, eliminating gaps and crevices, increasing hygiene, and reducing washdown time and water usage by 50%. It features an IP69K sealing system, withstands washdown pressure up to 3,000 psi, and exceeds industry sanitary and safety standards.

The latest hygienic SSV-XP Drum Motor is designed with an exchangeable machined profiled sleeve which enables different styles of modular conveyor belts to be used with the same drum motor. Visit VDG Booth S-3566 to see a demonstration of how quickly and easily the profiled sleeve on the SSV-XP Drum Motor is changed from one profile sleeve to another.



VDG Drum Motors

Reduce Water and Time for Washdown by 50%

The VDG Drum Motor is a robust conveyor drive with all drive components enclosed inside the drum and designed for 80,000 hours of continuous operation before maintenance, reducing energy and maintenance costs, and increasing run-time.



The SSV Series Drum Motor drives modular conveyor belts without the use of sprockets, eliminating gaps and crevices, increasing hygiene and reducing water and time for washdown by 50%.



Visit Booth S-3566
to See a Demo of the
SSV-XP Profiled Sleeve



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Weber Inc.

10701 N. Ambassador Drive • Kansas City, MO 64153 • USA

Phone: 816/891-0072 Email: sales.us@weberweb.com

us.weberweb.com

Visit Weber at Booth LU-7506 for their first Pack Expo appearance and experience the Line Up for the Future.

Located in the processing zone, Weber is highlighting an impressive product portfolio and unique philosophy on complete line solutions. Renowned as the global leader in high speed, precision slicing technology, Weber has undergone a rapid evolution since its acquisition of Schroder's packaging business in 2017.

Showcasing a complete slicing line, including automatic infeeding, slicing, handling, product loading, and packaging, Weber's Line Up for the Future demonstrates the company's ability to problem solve, innovate, and provide optimized, integrated solutions.

Starting with the new weSLICE 4500 mid-size slicer which includes automatic loading features that both make operators lives easier and ensure more active slicing time for higher throughput, Weber is further leveraging its weSHUTTLE, a cutting edge, smart method for product transportation and handling, and wePICK, the standard for hygienic environment robotic loading, to show how products can be delivered to its wePACK thermoformer with maximum output, yet in footprint friendly manner.

With innovative technology on display at each step of the process, including Weber's own OEM designed and manufactured software, vision, and robotics, visitors can experience how Weber challenges consensus when it comes to integration and line control – with a solution truly integrated, mechanically, electrically, and digitally. Accompanied by a complete suite of digital products, starting with the Weber Portal and rounded out by its Factory Cockpit real time production monitoring tool, Weber's holistic approach is sure to impress. Visit us at booth LU-7506 or for more information at us.weberweb.com.

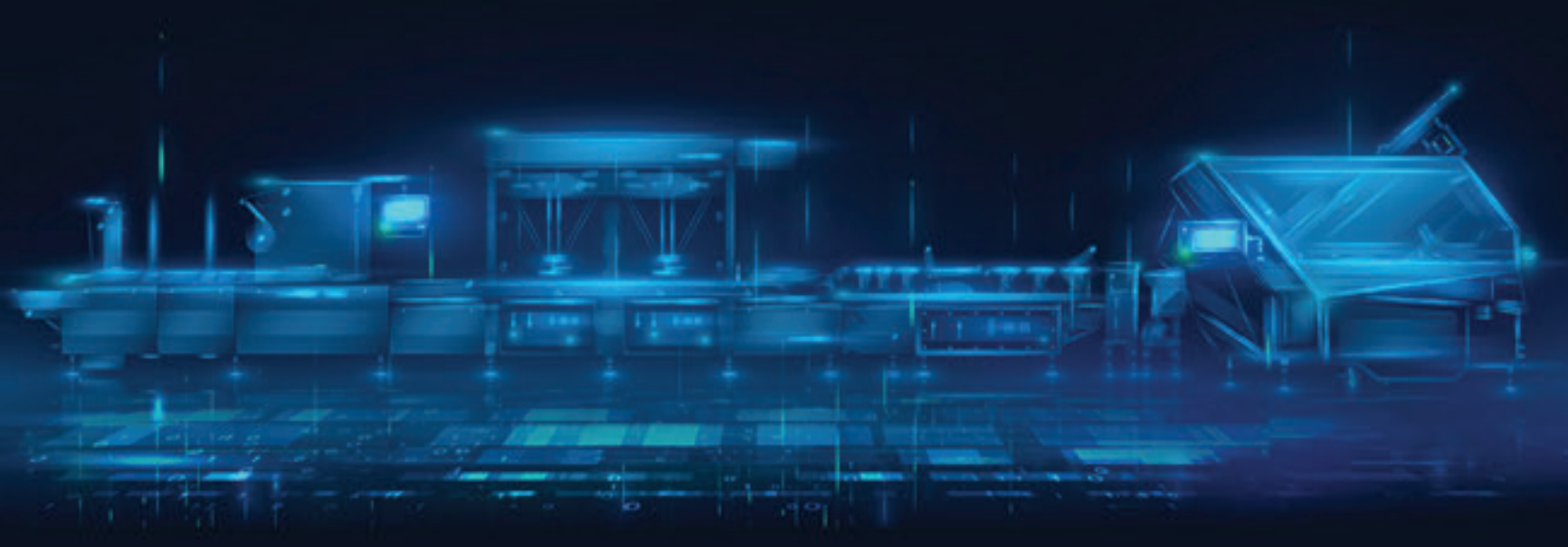


weber

LINE UP

FOR TOMORROW

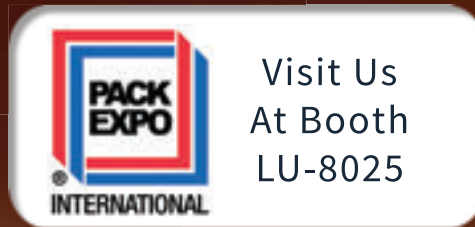
True integration creates true added value.
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and be prepared for tomorrow's challenges
with holistic line solutions from Weber.



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www.h-d-m.com



The next generation MacIntyre Refiner/Conches drive down cycle times and reduce energy consumption. While being a key asset in the manufacture of pure chocolate, milk chocolate, white chocolate, compounds, sugar free and specialty chocolates or coatings, spreads, nut and seed paste and also well suited for processing your chocolate and confectionery rework.

www.macintyreUSA.com



The UCOM compact grinding system from Bauermeister provides state of the art, 10 Bar explosion pressure shock resistance. EU 94/9/EU-ATEX compliant and conforming to NFPA guidelines makes UCOM the perfect solution for safe, reliable, energy efficient and consistent powdered sugar grinding.

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Come by our booth to ask about the Confectionery Reception we are co-hosting again!



STAINLESS-STEEL TANKS AND VESSELS

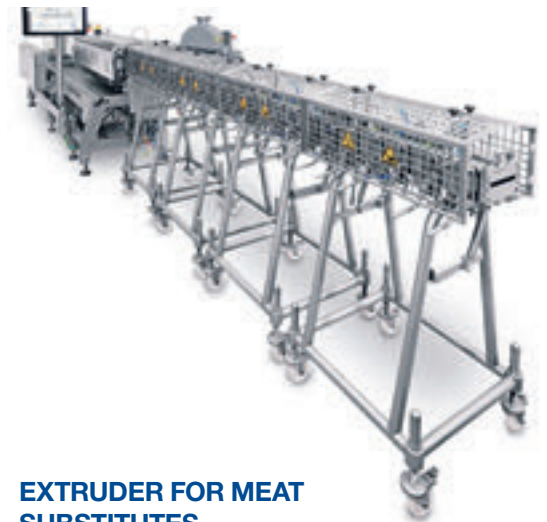
Used to process food, wine, beer, and other beverages, **Spokane Industries stainless-steel tanks and vessels** are custom-engineered and built to exact specifications. Spokane Industries is certified to manufacture ASME pressure vessels; ASME U, U/M, and H stamped vessels; and UL 142 explosion-resistant tanks. All the equipment is manufactured to rigorous sanitary standards. An automated spot welder ensures consistent, reliable jacket welds.

Spokane Industries
spokaneindustries.com
▶ See us at Booth LU-7043

POSITIVE DISPLACEMENT PUMPS

Engineered for durability, reliability, and efficiency, **Alfa Laval DuraCirc positive displacement pumps** feature a high-efficiency design, wide performance envelope, and low net positive suction head requirement. With flow rates up to 150 m³/hr (660 gpm), the pump handles operating pressures up to 40 bar (580 psi). Optional port configurations make installation easy with no need to change process piping. The pumps' innovative design features a truly front-loading single seal; long-lasting bearings; a single, long-life gearbox lubricant; external shiming; and fully interchangeable components. DuraCirc pumps also come standard with a condition monitor for wireless connectivity to view operational performance metrics.

Alfa Laval | alfalaval.us
▶ See us at Booth LU-7647



EXTRUDER FOR MEAT SUBSTITUTES

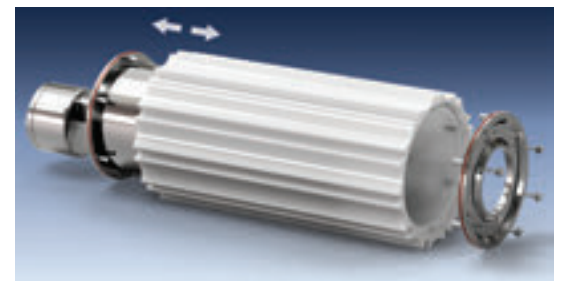
The **Coperion line of ZSK Mv Plus extruders** has been extended to include a hybrid solution for meat substitute product manufacturers, giving them maximum flexibility. With a minimum of retrofitting effort, both texturized vegetable protein (TVP) and high-moisture meat analogues (HMMA) can be produced on this ZSK food extruder. Using a newly developed Coperion adapter solution, the extruder's discharge can be changed from the ZGF centric pelletizer used for TVP to a specialized cooling die for HMMA. The pelletizer cuts product direct at the nozzle plate, while the cooling die produces a solid strand with textures similar to meat.

Coperion | coperion.com
▶ See us at Booth LU-7756

DRUM MOTOR

The **VDG hygienic SSV-XP drum motor** features an exchangeable profiled sleeve that enables different styles of modular belts to be used with the same drum motor. The profiled sleeve on the drum is easily removed and replaced simply by exchanging the sleeve to match the desired belt profile without having to change the entire drum motor. Constructed of 316 stainless steel, the SSV-XP drum motor is USDA-approved. It comes in a range of diameter sizes, belt speeds, and horsepower, and is available with industry-specific options and features to suit various food processing and packaging belt conveyor applications.

VDG (Van der Graaf) | vandergraaf.com
▶ See us at Booth S-3566





SPIRAL SYSTEMS

CMP sanitary spirals are designed for direct food contact. All CMP spiral systems are fully washdown-capable and have all-stainless-steel construction. The Side Drive technology spirals range from 10 to 42 in. wide, and the Direct Drive technology spirals range from 12 to 72 in. wide. CMP exclusive belting turn ratios offer a small footprint, enabling users to do more in less space. CMP is a member of the Food Process Solutions (FPS) family.

CMP | cmpequipment.com

▶ See us at Booth LU-7349

COLLOID MILL

The **Fristam FCM colloid mill** is designed for hands-off clean-in-place (CIP) applications; nothing needs to be removed for CIP, saving maintenance time and effort. The FCM's timesaving, external variable gap adjustment lever provides on-the-fly internal gap adjustment to produce more or less shear, without moving the front or top ports, or even pausing operation. The mill's variable internal gap allows users to dial in the particle size they need for shelf-stable emulsions and provides consistent particle sizes with a tight distribution. The colloid mill is patent pending.

Fristam Pumps USA | fristam.com/usa

▶ See us at Booth LU-7303



REMOTE MONITORING SYSTEM

The **FPS remote monitoring system (RMS)** is a web-based, universal platform that helps users track, analyze, and report on freezer performance from anywhere in the world. The FPS RMS provides critical data, such as trends, alarm history, maintenance, report journals, troubleshooting, and training. A live feed feature uses security cameras strategically placed in the freezer enclosure, providing real-time visual updates. The system allows users quick and easy access to information to make timely business and operational decisions. All the data is private, secured, and accessible only to users and FPS Support.

FPS Food Process Solutions

fpscorp.ca

▶ See us at Booth LU-7349



DOUBLE DIAPHRAGM PUMPS

Graco Quantm electric diaphragm pumps leverage a transverse flux motor that is suited for a range of hygienic applications. A standard air motor is replaced with an electric drive that can produce high torque at low speeds, unlike other motor technologies. This allows Quantm pumps to operate without gearboxes, reducing footprints, weights, and price points, while increasing efficiencies and generating an ROI on energy use reduction for end users. The pumps can be used in the production of candies, fondants, bakery products, sauces, and dressings, as well as in meat and poultry plants.

Graco | graco.com

▶ See us at Booth LU-8303

MULTI-LEVEL IMPINGEMENT FREEZER

The **OctoFrost multi-level impingement freezer** uses a high-speed airstream from above and below the product to achieve quick freezing in a few minutes. Suitable for various thin food products, such as hamburgers, fish or chicken fillets, shrimp, and dumplings, the freezer also can be used for crust freezing prior to slicing larger products, guaranteeing minimum product dehydration and premium product quality. The use of multiple straight belts in a single freezer preserves the product's appearance, doubles production capacity per square meter of factory space compared to traditional impingement technology, and allows different products to be run at each level.

OctoFrost | octofrost.com

▶ See us at Booth LU-7048



FOUR-PHASE DESIGN-BUILD APPROACH



Engage early using HRI's **progressive design-build contracting approach**. Minimal capital investments provide initial scope development, drawings, and schedules necessary for preliminary project approvals. Our content experts provide customized Development and Execution Plans to optimize business needs and requirements. Strategic information generated through this proven methodology allows owners to evaluate risk and the funding commitments required to further deliver a successful project.

Hansen-Rice | hansen-rice.com

▶ See us at Booth LU-7727



DIGITAL REPORTING FOR INSPECTION

Utilizing web-based architecture, the **Fortress Technology Contact 4.0 digital reporting feature** captures valuable production data across an entire suite of networked Fortress inspection machines. It can remotely monitor equipment, track events, and document all potential product risks, turning massive data streams into tightly monitored operational insight. With Contact 4.0, food processors can tether multiple front-end inspection machines to back-end reporting software in real time—live, streamlined, and centralized. Contact 4.0 can be installed on all Fortress digital Stealth, Interceptor, and Interceptor DF metal detectors, as well as the Raptor checkweigher series.

Fortress Technology

fortresstechnology.com

▶ See us at Booth S-1752

MIXING SYSTEMS

Reading Bakery Systems (RBS) provides innovative process solutions for the food industry. The RBS brands—Thomas L. Green, Reading Pretzel, Exact Mixing, and Reading Thermal—offer production lines that produce a range of snack products, innovative continuous mixing solutions and oven profiling, and consulting services. Exact continuous mixing systems reduce labor, cut costs, improve consistency, and simplify mixing processes. RBS flexible snack systems produce pretzels, bread snacks, crackers, baked crisps, cookies, biscuits, pet treats, and more.



Reading Bakery Systems | readingbakery.com

▶ See us at Booth LU-7906

PASTEURIZER FOR PLANT-BASED MILK

The **HRS Heat Exchangers DSI Series pasteurizer** uses direct steam injection, which takes a fraction of the time of other methods of pasteurization. The faster the product is heated and cooled, the less impact the heat has on the product. In the case of plant-based drinks, the impact can include discoloration, caramelization, and the introduction of off-tastes.

HRS Heat Exchangers | hrs-heatexchangers.com

▶ See us at Booth LU-7535





PNEUMATIC VACUUM CONVEYING SYSTEM

The **Volkman VS Series pneumatic vacuum conveying system** transfers powders, granules, pellets, small components, and other bulk materials safely, gently, and automatically. The conveyor can be operated in dense phase or lean phase, and can be quickly disassembled without tools for easy cleaning to support frequent product changeovers. The VS Series pneumatic vacuum conveying system is often used with the Volkman RNT-180 bag discharge station, which automatically captures fine particles as material is loaded into the hopper to prevent nuisance dust from entering the workplace. The conveyor and bag dump station are ATEX-certified as explosion-proof by design as standard.

Volkman USA | volkmanusa.com

▶ See us at Booth S-2991



ROBOTIC HPP ARM

The **Hiperbaric robotic high pressure processing (HPP) arm** picks up an HPP basket containing food or beverages after they have been processed in the HPP chamber, empties the basket contents onto a conveyor belt, and then returns the basket to be reloaded for HPP. The robotic arm can be used with any Hiperbaric machine (55 to 525 L) for any HPP application, from juices to meats. It reduces manual labor and heavy lifting—sometimes more than 16,000 lb of lifting per day—which often leads to workplace injuries and labor costs.

Hiperbaric | hiperbaric.com

▶ See us at Booth LU-7341

ELECTROMAGNETIC CONVEYOR

The **Electro-Glide electromagnetic conveyor** is the newest member of the Commercial Manufacturing family of vibratory conveyors. It is the first conveyor designed by Commercial Manufacturing to operate specifically as a flow control device. The conveyor is suited to feed scales and packaging machinery where the ability to instantly start and stop product flow is required. This ability allows the Electro-Glide also to be used as an alternative to a metering unit in a mix-and-blend system when the elimination of pinch points is desired. The conveyor features an all-stainless-steel drive.

Commercial Manufacturing | commercialmfg.com

▶ See us at Booth LU-7603



RARE EARTH PLATE MAGNETS

Eriez Xtreme Rare Earth+ plate magnets are now available in all of the company's deep-reach, round-pipe, and hump-style magnetic separators. When the separators include these new, stronger magnets, they demonstrate a significant increase in both surface gauss value and pull test strength, compared with competitive units and the company's separators with the previous generation of rare earth plates. Gauss and pull testing, the standard methods for testing a magnet's strength, indicate a magnetic separator's ability to deliver a pure, contaminant-free product.

Eriez | eriez.com

▶ See us at Booth N-5214





HYGIENIC AIRLOCK

The **Schenck Global hygienic airlock (GHA)** is a USDA dairy-accepted dismountable airlock that is suited to applications where dry raw or finished products are being handled in the process and where inspection or system cleanout is required. A key feature of the product is a rail system that simplifies removal and provides access to the internal valve, cavity, rotor pockets, and all other product contact areas for quick and easy cleaning. A valve interference detection (VID) system protects the airlock from damage and prevents product contamination due to interference between the valve rotor and housing.

Schenck Process | schenckprocess.com

▶ See us at Booth LU-7247



REVERSIBLE HORIZONTAL-MOTION CONVEYOR

The **Key Technology Zephyr conveyor** moves product with minimal bounce to protect product quality and reduce noise. Equipped to flow in either direction, the reversible Zephyr maximizes production line versatility. The conveyor is suited to frozen bulk foods, including potato products, fruits, vegetables, meat, and poultry, as well as dry products such as potato chips, nuts, and cereals. Its unique motion profile gently slides and conveys product with no segregation or stratification, and reduces product damage and the loss of coatings, such as seasoning, batter, and certain types of oil. Zephyr accommodates varying flow rates, maximizing the flexibility of the system.

Key Technology | key.net

▶ See us at Booth S-3553

PROTEIN DICER

The **Urschel M VersaPro 2D dicer** excels in the processing of meat, poultry, and alternative proteins. It offers 33% increased feeding capacity vs. the standard M6 due to wider belts, optimized cutting, and increased horsepower. The IP69K-certified electrical enclosure features a double-sealed door for extra protection during washdowns. The mechanical zone is isolated from the product zone to promote sanitation. The dicer has stainless-steel construction throughout, including the solid, round bar frame; motors; and hinged panels. The new fluted crosscut option provides gentler cutting action. The dicer is available with an intuitive optional touchscreen HMI.



Urschel Laboratories | urschel.com

▶ See us at Booth LU-7112

QUALITY CONTROL MACHINES

Extremely adaptable, **Wipotec-OCS TQS-MD quality control machines** incorporate the company's new Traceable Quality System Modular Design, which uses a "building block" concept, yielding compatibility with a broad array of products. Depending on a product's size, shape, weight, and desired throughput speed, Wipotec-OCS can combine the relevant modules for a solution tailored to meet specific needs. Regardless the number of functionalities a model entails—including weighing, marking and verifying, labeling, metal detection, and serialization/aggregation integration, among others—the unit employs one user interface, making product changes, article setup, and layout modifications less error-prone and more user-friendly.

Wipotec-OCS | wipotec-ocs.com

▶ See us at Booth S-4172





SANITARY CUBER

The main function of the **Deville Technologies pneumatic two-way cuber** is to reduce cheese blocks in order to optimize the downstream dicer/shredders. The larger belt width and cheese chamber are optimal for processing non-standard cheese sizes. Not only does the guillotine feature (executed via the local HMI) optimize working with off-cuts and soft cheese, it eliminates the cumbersome task of manually spacing out batches of off-cuts during production, thereby allowing an operator to fill the belt and let the machine cycle without further intervention. The cuber is robust, hygienic, and easy to use.

Deville Technologies

devilletechnologies.com

► See us at Booth LU-7332

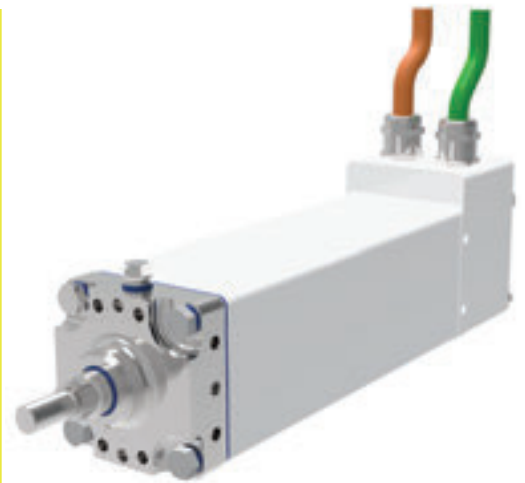
FOOD MACHINERY LUBRICANTS

Lubriplate NSF H1-registered food machinery lubricants are now available in a new style of aerosol spray cans, featuring a dual-spray nozzle with a permanently attached straw. The cans offer a dual-position spray; when the straw is in the “up” position, it offers precise, pin-point application. Ergonomically designed, the cans have a recessed comfort trigger to help prevent accidental discharge. GHS-compliant labeling on the back panel ensures compliance with OSHA requirements, while a scannable QR code on the side panel provides quick access to product information and safety data sheets.

Lubriplate Lubricants

lubriplate.com

► See us at Booth LU-8814



CLEANABLE ELECTROMECHANICAL ACTUATOR

The new **Exlar electromechanical actuator** is designed to meet the requirements of food and beverage/packaging (F&B/P) applications. The F&B/P-grade actuator is part of the integrated GTX product line, known for its compactness, power density, flexibility, and third-party drive compatibility. The new F&B/P-grade GTX actuator features a smooth, cleanable body design in white epoxy and a stainless-steel rod. It has an IP69K ingress protection rating and is recognized by 3-A Sanitary Standards. Exlar is a Curtiss Wright business unit.

Exlar | cw-actuation.com

► See us at Booth N-5977



SORTING MACHINE

The **Tomra 5C premium sorting machine**, featuring Tomra’s unique biometric signature identification (BSI) technology, is now available to frozen vegetable and fruit processors. By locating the Tomra 5C on the processing line between the IQF tunnel and the packing station, final checks for food safety and product quality can be made with accuracy. As the frozen product reaches the end of the line, the sorter recognizes and removes any remaining foreign material, extraneous vegetable matter, and hard-to-detect product defects. These detection capabilities greatly reduce the risks of consumer complaints or product recalls.

Tomra | tomra.com

► See us at Booth LU-7135

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A resource highlighting suppliers who provide:

- Design/Build and Engineering Services
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- Plant Assets and Operations



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Each year, *ProFood World* recognizes outstanding food and beverage processing and packaging innovation projects via the Manufacturing Innovation Awards competition.

Types of food and beverage projects eligible for the awards:

- Major plant expansion or renovation
- Greenfield or brownfield facility
- Major line expansion incorporating ground-breaking technology
- Major plant automation upgrades
- Major plant food safety upgrades

Judging criteria:

- Level of technology advancement in processing and packaging equipment
- Level of automation, software and controls
- New-to-the-industry use of technology
- Major efficiency and cost savings
- Line changeover, flexible manufacturing, sustainability or maintenance achievements

Submission deadline is January 27, 2023

Join the ranks of past winners, including Mark Anthony Brewing, The J.M. Smucker Company, Hermes Boissons, Dairy Farmers of America, Clemens Food Group, MWC, CTI Foods, Royal Cup Coffee and Tea, Sugarlands Distilling, and Kraft Heinz.

Learn more, view videos of past winning entries, and download submission entry forms at pfwgo.to/mia.

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Awards to be presented at:



September 11–13, 2023
Las Vegas Convention Center
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October 23-26, 2022
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The Austin Company



LU-7719

Food & Beverage Architectural & Engineering Firm

www.eabonelli.com

E.A. Bonelli is an architectural and engineering firm working exclusively for the food & beverage industries. Over sixty years of hygienic design expertise, serving clients from five offices across the U.S. Since 1960, Designing Buildings That Work.

E.A. Bonelli + Associates, Inc.



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GROUP**

LU-7411

#1 Food and Beverage Design Firm

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ENR has ranked us the #1 firm in food for the last eight years. With 35 years in the industry, we have a highly experienced team to support you at every stage of a project from small-scale studies to ground-up greenfields, and everything in between.

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ESI GROUP USA



LU-7014

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Food Plant Engineering



LU-7327

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LU-7727

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LU-7140

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Hixson Architects/Engineers




LU-8962

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Kiewit




LU-8643

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Matrix Technologies




LU-7605

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Stellar



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N-6064

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N-4638

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The WEBBER/SMITH Group



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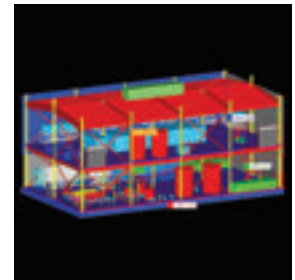
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Delivering High-Quality Engineering and Design Services

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Zachry Engineering provides a full range of high-quality engineering and design services from small revamp projects to large grassroots plants for the food and beverage industry in a safe, efficient, and cost-effective manner resulting in successful projects for our clients.

Zachry Engineering Corporation



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LU-7809

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MIURA



S-3752

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N-5923

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ProFood World*(ISSN 2476-06760, USPS 22310) is a registered trademark of *PMMI, The Association for Packaging and Processing Technologies*. **ProFood World*** is published 7x a year (February, April, June, August, September, October, December) by PMMI Media Group, 401 North Michigan Avenue Suite 1700, Chicago, IL 60611; 312.222.1010; Fax: 312.222.1310. Periodical postage paid at Chicago, IL, and additional mailing offices. Copyright 2022 by PMMI. All rights reserved. Materials in this publication must not be reproduced in any form without written permission of the publisher. Applications for a free subscription may be made online at www.profoodworld.com. Paid subscription rates per year are \$55 in the U.S., \$80 Canada and Mexico by surface mail; \$130 Europe and South America. \$200 in all other areas. To subscribe or manage your subscription to ProFood World, visit ProFoodWorld.com/subscribe. Free digital edition available to qualified individuals. POSTMASTER: Send address corrections to: ProFood World, 401 North Michigan Avenue, Suite 1700, Chicago, IL 60611. PRINTED IN USA by Quad Graphics. The opinions expressed in articles are those of the authors and not necessarily those of PMMI. Comments, questions and letters to the editor are welcome and can be sent to: ahand@pmmimediagroup.com. **We make a portion of our mailing list available to reputable firms. If you would prefer that we don't include your name, please write us at the Chicago, IL address.** Volume 6, Number 5.

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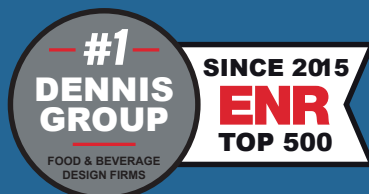
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