

THE NATIONAL PROVISIONER

132 YEARS OF EDITORIAL LEADERSHIP IN THE MEAT & POULTRY INDUSTRY

2024 SEAFOOD REPORT

NEXT >>



- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi



[Learn More ▶](#)

Designed, Manufactured, and Tested
in Middletown, Connecticut, USA

PAS Type C
Power Actuated Concussion Type Stunner

The PAS Type P Penetrating Cartridge Stunners are designed for easy to use, humane stunning on a variety of small to large animal types. With a comfortable, ergonomic handle and ultra-durable construction to reduce the need for maintenance. And different available cartridge strengths depending on usage.



CONTENTS

FEBRUARY 2024 / VOLUME 237 / ISSUE 2



COVER STORY

THE SEAFOOD REPORT 2024 – More than half of Americans report eating more seafood now than they did two years ago.

SPECIAL REPORT: OPERATIONAL EFFICIENCY
Processors find automated traceability and processing equipment solutions enhance operations.

FIGHT FOR FOOD SAFETY
An Atlantic fishermen, Big Oil and a 1984 Supreme Court decision may collide to upend federal meat regulation.

COMMENTARY: AMSA
Beef tenderness development is influenced by zinc and ractopamine hydrochloride supplementation.

COMMENTARY: USPOULTRY
Celebrating innovations in poultry worker safety and health.

SUPPLIER’S PERSPECTIVE: THERMO FISHER SCIENTIFIC
Manufacturing operations must prevent foreign bodies from making their way into food.

EDITOR’S NOTE

AD INDEX

WEBSITE HIGHLIGHTS



INDEPENDENT
PROCESSOR



COVER STORY
Chicago-based Lexington Betty Smokehouse offers a variety of barbecue products, with Wagyu Andouille Sausage among their popular items.



CATEGORY REPORT: AQUACULTURE
Aquaculture Stewardship Council aims to transform seafood farming globally.



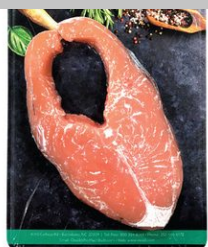
SPECIAL REPORT: SPECIALTY SEAFOOD PRODUCTS
One of the trends in specialty seafood technically isn’t from the sea: it’s freshwater fish.



COMMENTARY: SOUTHWEST MEAT ASSOCIATION
Energy-efficiency considerations for processors.

BACK

NEXT



Ossid offers machinery that provides flexibility to deliver fresh proteins in the package style of your choice.



From tray overwrap to vacuum skin packaging and more, Ossid is an industry leader in supplying reliable protein packaging and labeling equipment to suit your needs.



252-446-6177 • www.ossid.com



“Modern Hardships for Small Meat Processors”



▶

with
Tom Eickman
of
Eickman's Processing Company
PART 1

MODERN HARDSHIPS FOR SMALL MEAT PROCESSORS WITH TOM EICKMAN OF EICKMAN'S PROCESSING CO., PART 1
The National Provisioner's Multimedia Specialist Brett Parker sits down with Tom Eickman, president and CEO of Eickman's Processing Co., as they discuss modern hardships facing small meat processors.



SSV Series
Drum Motors



WWW.PROVISIONERONLINE.COM | FEBRUARY 2024



TOP-VIEWED NEW CONSUMER PRODUCTS:

1. Bojangles launches Chicken Rice Bowls
2. Wingstop puts a spin on resolutions with new Dry Rub January
3. Popeyes permanently adds wings to the menu
4. Marco's Pizza rolls out Pizzoli handheld
5. Freddy's brings back French Onion Steakburger for a limited time



MOST-POPULAR FEATURES:

1. Signature sausage supports sales
2. 2023 Top 100 Meat and Poultry Processors
3. Johnsonville acquires its longtime co-packer
4. Poultry facility cited after teen worker pulled into machine suffers fatal injuries
5. Labor and funding access continue to challenge processors



1. Episode 166: District Taco supply chain director reviews popularity of handhelds, breakfast all day
2. Episode 165: NTF barbecue program emphasizes turkey grilling
3. Episode 164: Packaging trends for meat and poultry products
4. Episode 163: Consumer Trends Report 2023: Making convenience and value easy
5. Episode 162: Hardcore Carnivore and Standard Meat discuss their line of hardwood smoked sausages

Paper is a BIG part of your quality product.

Our family owned and operated business serves portioned meat, poultry, fish, bacon, bakery, and specialty provisioners with the highest quality paper goods and astonishing service.



Products Include:
Patty Paper

Side notch, tear pin or combo configurations produced and tested to perform accurately with any equipment line.




Toll Free: 800.336.3936
www.framarx.com • sales@framarx.com

Interleaving the worlds of meat, poultry, dairy, fish, baking and specialty products.



paper stocks matched to your specific applications.





LET'S TALK SEAFOOD

UP NEXT >>

EDITOR'S NOTE



New SSV-XP Drum Motor
Exchangeable Profiled Sleeve





LET'S TALK SEAFOOD

⏪ BACK

While *The National Provisioner's* bread and butter is meat and poultry, the seafood marketplace has a lot of overlap with other proteins. As an option for center-of-plate meal solutions, seafood innovations intersect with the larger protein market for share of stomach.

As is the case for other proteins, seafood sales have struggled and continue on a negative track that began in Q3 2023, with sales of both fresh and frozen seafood losing ground over year-ago levels, according to Circana retail data analysis.

In our Seafood Report 2024, learn what categories of seafood are driving sales and how consumers are responding to pricing vs. other protein options.

Keeping on our seafood focus for February, our Aquaculture Category Report features insights from the Aquaculture Stewardship Council. Learn how ASC sees the transformation of seafood farming globally and promoting the environmental and social benefits of aquaculture unfolding.

Also, make sure to check out our Special Report: Specialty Seafood Products to read about the products that East Coast distributor Baldor Specialty Foods is finding to be trendy.



FRED WILKINSON

NEXT ⏩





REGISTER
NOW



ANNUAL MEAT
CONFERENCE™



CELEBRATE MEAT AT THE #1 CONFERENCE
FOR MEAT RETAIL PROFESSIONALS!

MARCH 18-20, 2024
GAYLORD OPRYLAND • NASHVILLE, TENN.



Can't-Miss Session!
2024 Power of Meat
Monday, March 19

MEATCONFERENCE.COM

COVER STORY: SEAFOOD REPORT 2024



CONSUMPTION TRENDING UP

THE AVERAGE PRICE PER POUND FOR FRESH SEAFOOD REMAINS HIGHER THAN FOR OTHER PROTEINS.

BY FRED WILKINSON
CHIEF EDITOR

The seafood category began 2024 with prices down for frozen and fresh shellfish, according to Circana retail market research.

The cost for fresh seafood — at an average price of \$9.18 per pound -- remained markedly elevated over the average price per pound for chicken (\$2.99), pork (\$3.11) and beef (\$6.51).

On average, seafood is eaten once per week, with more than half (54%) of Americans eating more seafood now than they did two years ago (and 40% eating about the same, according to Circana market analysis for the Alaska Seafood Marketing Institute in December 2023. Additional research via ASMI/Material+ shows that 74% of consumers wish they ate seafood more than they already do, with 66% saying easy recipes and cooking inspiration would help them do so.

“Health, taste and enjoyment continue to drive overall seafood consumption, with cost increasingly factoring into purchasing decisions in recent years,” said Megan Rider, domestic marketing director for ASMI. “Sales and promotions are the strongest purchase driver for seafood, and will continue through 2024 as shoppers balance value and taste.”

	December 2023 % change					Latest 52 weeks % change			
	Dollar size	Dollars vs. YA	Dollars vs. 2YA	Pounds vs. YA	Pounds vs. 2YA	Dollars vs. YA	Dollars vs. 2YA	Pounds vs. YA	Pounds vs. 2YA
Fresh seafood	\$634M	-8.1%	-13.2%	-4.8%	-8.9%	-3.5%	-11.4%	-2.4%	-16.8%
Frozen seafood	\$675M	-10.9%	-13.4%	-4.4%	-12.0%	-5.9%	-8.3%	-3.8%	-14.9%
Shelf-stable seafood**	\$228M	-2.8%	+4.2%	-4.8%*	-9.1%*	+0.2%	+6.0%	-3.8%*	-9.1%*

	December 2023			Latest 52 weeks ending 12/31/2023		
	Average price per pound	Change vs. YA	Change vs. 3YA	Average price per pound	Change vs. YA	Change vs. 3YA
Total fresh seafood	\$9.18	-3.5%	+7.0%	\$9.26	-1.2%	+14.2%
Fresh finfish	\$10.32	-1.2%	+26.4%	\$10.38	+2.1%	+27.0%
Fresh shellfish	\$8.21	-6.8%	-10.3%	\$8.07	-6.5%	-2.7%
Total frozen seafood	\$7.64	-6.8%	+9.0%	\$7.56	-2.2%	+14.1%
Shelf-stable seafood*	\$2.35*	+2.2%	+19.3%	\$2.19*	+4.2%	+18.0%

Rider said pairing regular promotions with usage suggestions and cooking tips (such as cooking right from frozen), is the best way seafood departments can encourage regular sales of seafood.

On the regulatory side, President Biden issued an Executive Order in December 2023 to fully ban Russian seafood products entering the U.S., regardless of where they may have been further processed.

“The ongoing situation with Russia has solidified U.S. consumers’ preference for seafood caught domestically,” Rider said, adding that the majority of consumers (66%) prefer seafood with a U.S. origin.

« BACK

FINFISH AND SHELLFISH



NEXT »

Total four-year seafood sale growth is balanced across finfish and shellfish, with frozen and refrigerated finfish experiencing 31% sales growth, according to ASMI. Salmon continues to be the most-consumed finfish in the U.S. Frozen and refrigerated shellfish that includes shrimp, the most-consumed type of shellfish in the U.S., as well as Alaska shellfish species like crab, experienced 23% sales growth.

FRESH, FROZEN AND CANNED

Comparing seafood’s fresh, frozen and canned categories, just-released research from Circana for ASMI finds demand for all three categories is balanced, with the seafood category seeing an average of 30.2% sales growth over the past four years. Fresh/refrigerated is the most frequently purchased seafood, followed by frozen and then canned/shelf stable products.

Tinned seafood grabbed consumer attention during the Covid-19 pandemic from consumers looking for [shelf-stable proteins](#), according to Global Seafood Alliance. Popular TikTok videos are making tinned seafood trendy, with Circana finding sales of tinned fish increasing from \$2.3 billion in 2018 to more than \$2.7 billion in 2023.

“The tinned fish trend is still alive and well,” Rider said. “We’re continuing to see expansion of tinned seafood offerings branching into new species, as well as new flavor variations for tried-and-true tinned species like salmon.”

She added that specialty tinned fish continues to perform well at retail, especially products that tap into flavor trends or offer limited-time deals. Wild seafood is overall preferred 4-to-1, with consumers favoring products clearly marked as wild being more desirable.

VALUE-ADDED SEAFOOD

Flavor trends and the growing desire for cooking inspiration and convenience is driving new value-added seafood product development.

An example is , a pre-marinated miso-glazed sablefish hitting store shelves in 2024, which helps introduce consumers to lesser-known species while making meal planning and prep easier, Rider said.



Flavor trends for seafood products are following many of the major flavor trends across the food industry, she said, including increased global influence (especially of Asian flavors like miso), flavor fusions (most notably sweet and spicy) and refreshing flavors like botanicals and citrus (grapefruit and yuzu, for example).

A new product innovation recently introduced by Scott & Jon’s, a provider of premium, convenient seafood meals, are the new microwavable salmon bowls. The product is available in two restaurant-inspired flavors featuring Atlantic salmon. The Honey Sesame bowl includes rice, vegetables and a sweet and savory honey sesame sauce, and the Mediterranean Herb bowl offers a medley of fresh herbs, quinoa, brown rice and vegetables.

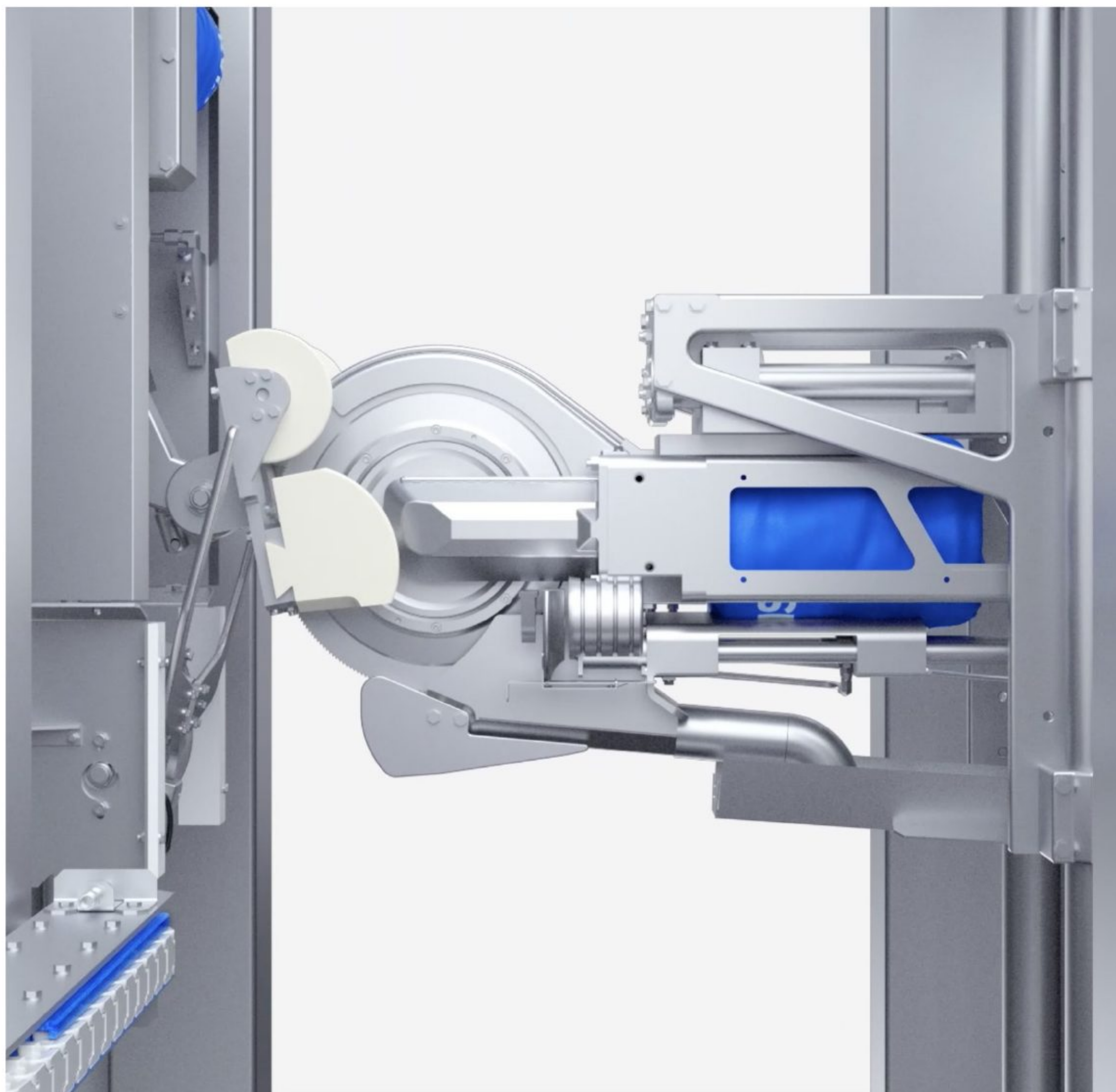
Photos all courtesy Alaska Seafood Marketing Institute
Charts courtesy: Circana, Integrated Fresh

Designed, Manufactured, and Tested
in Middletown, Connecticut, USA

JLR-900
Linear Robotic Hog Splitting

Capable of increasing your yield at throughputs up to 900 head per hour per machine. And already setting a new standard in accuracy, hygiene, and reliability under the most demanding conditions. Welcome to the JLR-900. The fastest pork splitting robot ever made.

Make the perfect cut.
At the fastest line speed possible.



[⏪](#)
[BACK](#)

[NEXT](#)
[⏩](#)



Solutions for TODAY, Planning for TOMORROW

**MAY 6-9
2024**

Donald E. Stephens
Convention Center
ROSEMONT, IL

EARLY BIRD PRICING ENDS MARCH 31!

LEARN FROM INDUSTRY LEADERS ON TOPICS AT THE FOREFRONT OF FOOD SAFETY

The Food Safety Summit brings together leaders from the entire supply chain by providing the knowledge, education, and contacts to continuously improve food safety programs. The Summit's **Educational Advisory Board** assembles an engaging educational program each year focusing on the latest trends and innovations in food safety.

➤ GAIN CRITICAL INSIGHTS FROM LEADING SUBJECT MATTER EXPERTS IN KEY TOPICS SUCH AS:

- Root Cause Analysis
- Outbreak Investigation
- Leadership Skills
- Impact of Legacy Facilities and Equipment
- Food Safety Culture
- The Impact of Climate Change and Sustainability
- Using Big Data and AI to Advance Food Safety
- Intervention Strategies in Fresh Produce

CERTIFICATE / CERTIFICATION COURSES

MAY 6

**Active Managerial Control
for Leaders**

*1 Day Course



MAY 6

**Food Fraud Prevention Workshop
and Certificate Course**

*1 Day Course



MAY 6-7

**Certified Professional-Food Safety
(CP-FS) Credential Review Course**

*2 Day Course



MAY 6-8

**HACCP for Food Processing
Personnel**

*2.5 Day Course



MAY 6-8

**Preventive Controls for
Human Foods 2.0**

*2.5 Day Course



VIEW THE FULL AGENDA AND REGISTER AT
www.FoodSafetySummit.com
GROUP DISCOUNTS ALSO AVAILABLE

**SILVER
SPONSOR**



**BRONZE
SPONSOR**



**MEDIA
PARTNERS**



**COLLABORATIVE
ORGANIZATIONS**



As of 1/10/24



AUTOMATED TRACEABILITY AND PROCESSING EQUIPMENT SOLUTIONS ENHANCE OPERATIONS.

BY SAMMY BREDAR
ASSOCIATE EDITOR

The industry as a whole is focused on waste reduction — from sustainable packaging to GHG emissions reductions, the meat industry is cutting back on waste and excess. Before worrying about waste reduction for the end user, though, processors need to consider strategies to reduce wasted time, energy, labor and materials on their end. Minimizing waste of these resources is essential to improving operational efficiency.

To gain better insight into the industry’s most up-to-date operational efficiency strategies, *The National Provisioner* consulted ReposiTrak, The Timken Co. and Ammeraal Beltech, or AMMEGA.

With a compliance date of Jan. 20, 2026, coming up quickly, producers need to get a head start on maintaining transparency through every component of the supply chain. Though meat producers are not covered by FDA regulations, maintaining a transparent supply chain can help to ensure operational efficiency.

“While not officially impacted by FSMA 204, meat producers need easy ways to track and store lot code information, as well as collect important safety and risk documents like Certificates of Insurance and third-party food safety audits,” said Derek Hannum, chief customer officer for ReposiTrak.

By keeping accurate supply chain data on hand, producers can tackle issues timely when they do arise.

Utilizing automated traceability can also help to eliminate unnecessary labor and cut costs, Hannum said, further optimizing operational efficiency.

⬅ BACK

NEXT ➡

While FSMA 204 does not directly affect meat producers, the rule does impact seafood producers. In addition to helping maintain transparent, streamlined and easily accessible operations, utilizing fully automated traceability can assist seafood producers with FSMA compliance.

In addition to maintaining digital and automated records, producers need to make improvements on the production floor to increase their operational efficiency.

The Timken Co.’s application engineers Cory Langhoff and Jacon Wenzel shared how proper bearings can increase operational efficiency, noting they can lower maintenance needs and increase uptime.

“Using the proper bearing with appropriate lubricant and seals can reduce maintenance time by minimizing or eliminating the need for relubrication. Also, utilizing a high-quality bearing can lead to longer time between maintenance cycles and reduce unplanned downtime due to bearing damage.”

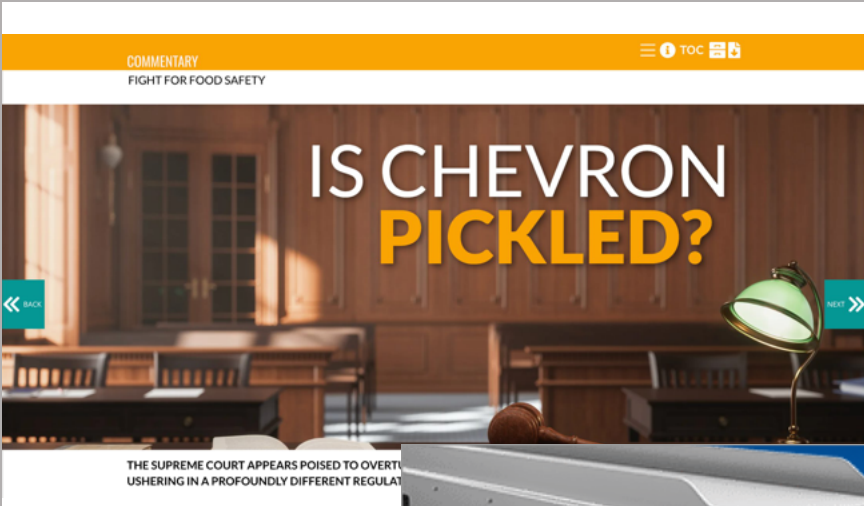
Though equipment needs do vary, Bauman said that two aspects are essential for conveyor belts in the meat industry: long service lifetimes and easy-to-clean properties.

For processors looking to optimize the efficiency of their belting/conveying systems, Bauman recommended maintaining hygiene and a sanitary environment, as well as having a belt that is highly flexible with a solid grip. Meat production is typically fast-paced and often of a messy nature, and producers’ belting/conveying systems must be equipped to handle those issues.

Though automation and equipment solutions can be greatly beneficial for optimizing operational efficiencies, they can also be quite costly. For smaller or mid-sized processors who might have tighter budgets, Bauman advised using easy-to-clean, flexible belts with high grip and stable production positions as a guideline.

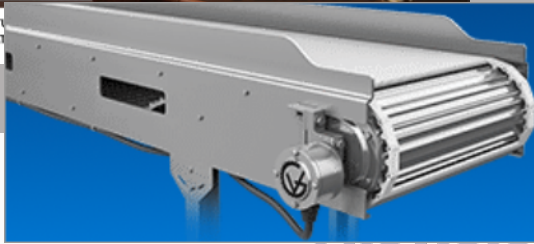
As Bauman emphasized, “There is no one-size-fits-all solution in meat and poultry processing. Still, any meat producer — large, small or mid-sized — can follow these recommendations to begin improving their operations.

Opening image credit: GettyImages / michal-rojek / Creatas Video+ / Getty Images Plus



UP NEXT ➡

FIGHT FOR FOOD SAFETY



- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi



FOOD AUTOMATION AND MANUFACTURING

FA&M

SYMPOSIUM AND EXPO

25
YEARS

PRODUCED BY
FOOD
ENGINEERING

Discover the Future of Food Manufacturing at FA&M 2024!

**REGISTER NOW
AND SAVE \$200**



APRIL 7-9, 2024

HYATT REGENCY COCONUT POINT IN
BONITA SPRINGS, FL

Experience the pinnacle of innovation at FOOD ENGINEERING's 25th Food Automation & Manufacturing Symposium and Expo. This year, we're spotlighting the latest in sustainable practices, resource-saving strategies, and advanced automation in food plant construction.

FA&M 2024 is more than an event – it's a hub for industry leaders to learn, network, and explore cost-cutting, environmentally friendly solutions. Don't miss our exhibition space, showcasing the latest technologies tailored to your manufacturing challenges.

Sign up to join us before January 24 and save with our Super Early Bird pricing.

2024 SPONSORS *AS OF JANUARY 10, 2024

GOLD SPONSORS



FOODAUTOMATIONSYMPOSIUM.COM



THE SUPREME COURT APPEARS POISED TO OVERTURN THE CHEVRON DOCTRINE, USHERING IN A PROFOUNDLY DIFFERENT REGULATORY ENVIRONMENT.

BY SHAWN K. STEVENS
FOOD INDUSTRY COUNSEL LLC

In 1984, the United States Supreme Court decided *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984) (“Chevron”). The “Chevron doctrine” or “Chevron deference” has remained among the most cited and controversial legal doctrines in modern American jurisprudence. Today, 40 years later, the Supreme Court appears poised to overturn Chevron, ushering in a profoundly different regulatory environment.

WHAT IS THE CHEVRON DOCTRINE?

The Chevron doctrine is a two-pronged test applied by courts in disputes over whether an agency has exceeded its authority to enforce the statutes the agency administers. The first prong examines whether the statute in question directly addresses the matter in question. If the statute addresses the issue, the court gives effect to the clear intent of Congress, and the analysis ends. When a statute is ambiguous, however, as many federal statutes are, the Chevron doctrine requires the court to defer to the agency's own interpretation of the statute, provided only that the interpretation is subjectively "reasonable."

Proponents of the Chevron doctrine argue that federal agencies are the experts in their respective realms and are thus better suited to develop the requisite policies necessary to implement congressional intent, especially in complex or expansive areas of law. They contend that federal agencies need flexibility given the breadth and complexity of many statutory frameworks. The Federal Meat Inspection Act, as well as the Food Safety Modernization Act, are two examples of complex laws for which USDA and FDA, respectively, should be granted deference in interpreting and implementing. Indeed, implementing these laws would take decades if USDA and FDA were not granted deference in interpreting congressional intent.

Conversely, critics argue that the doctrine grants too much power to unelected bureaucrats and regulators while undermining the judiciary's important role in checking executive and administrative power. Moreover, they contend that the Chevron doctrine actively encourages regulatory overreach by incentivizing federal agencies to interpret statutes as expansively as possible (within subjective “reason”), knowing the courts have little choice but to side on complex issues with the agencies.

The herring case: Is Chevron about to be pickled?

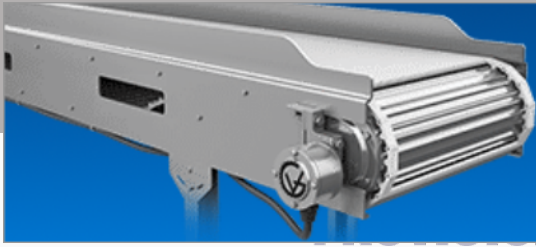
On Jan. 17, 2024, the U.S. Supreme Court heard oral arguments in two cases that could lead to Chevron's demise. The cases are brought by herring fishers who argue that the National Marine Fisheries Service exceeded its regulatory mandate. For decades, fishing boats have carried governmental observers who oversee operations related to conservation, sustainability, waste, and regulatory compliance. In 2020 however, the Trump administration amended the regulation, requiring fishers pay for the onboard observers at a cost of more than \$700 per day.

With arguments complete, and as we await a decision, the Supreme Court could approach the case in a number of different ways. It could uphold Chevron, resulting in the continuation of the status quo. It could strike down the Chevron case, leading to extraordinary change in how courts rule on issues of ambiguity in administrative law. Or it could meet in the middle and make some sort of incremental change.


Notably, however, at least four of the nine current justices — including Samuel Alito, Neil Gorsuch, Brett Kavanaugh and Clarence Thomas — have already sewn doubt about the legitimacy of Chevron. Gorsuch has called for it to be struck down. Given the justices' apparent disdain for the 1984 Chevron decision, it is entirely possible they will use this case to overrule the Chevron doctrine. If that happens, it will likely result in a flood of additional legal challenges to extant regulatory interpretations on a myriad of issues, including issues impacting the meat and poultry industries.

⏪ BACK

NEXT ⏩



- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi



Learn More ▶

READY FOR MORE NATIONAL PROVISIONER & INDEPENDENT PROCESSOR NEWS?

CONTENT YOU NEED

OUR ENEWSLETTERS BRING YOU THE LATEST NEWS, ANALYSIS, CONSUMER TRENDS, FOOD SAFETY UPDATES, AND PROCESSOR INNOVATIONS; AS WELL AS NEWS AND INNOVATIONS FROM THE SMALL AND MID-SIZED MEAT & POULTRY MARKET. YOU WILL ALSO RECEIVE 'BREAKING NEWS' EDITIONS THAT WILL PROVIDE YOU NEWS THAT MATTERS MOST TO YOUR BUSINESS



EASY ACCESS

DELIVERED RIGHT TO YOUR INBOX EVERY WEEK AND ACCESSIBLE INFORMATION ON THE GO SO YOU NEVER MISS A THING.

SIGN UP FOR OUR FREE ENEWSLETTERS TODAY.

THE NATIONAL
PROVISIONER

INDEPENDENT
PROCESSOR

SIGN ME UP!



BEEF TENDERNESS DEVELOPMENT IS INFLUENCED BY ZINC AND RACTOPAMINE HYDROCHLORIDE SUPPLEMENTATION.

BY MATT SCHULTE, STEVEN LONERGAN, STEPHANIE HANSEN AND ELISABETH HUFF-LONERGAN

Beef producers continue to address the challenge of improving production efficiency and sustainability while balancing the consumer demand for high-quality, tender, fresh beef. Feeding strategies to improve the efficiency of beef cattle production, such as supplementation of the beta-agonist ractopamine hydrochloride (RH) and the trace mineral zinc (Zn), can positively impact the sustainability of beef production. The impact of these practices on beef tenderness should be defined.

The impact of RH and Zn feeding on muscle and meat quality is not fully understood. Supplementation of RH has consistently shown a small but negative impact on tenderness¹. Zn supplementation has shown mixed results on aged beef tenderness, with some studies showing no impact and others showing a small, positive impact of improving beef tenderness^{2,3}. These variations in research study results can be due to the dosage, feeding duration, implant history, breed, and source of Zn.

In a previous study, we demonstrated that cattle supplemented with only Zn had a lower ribeye muscle pH at six hours postmortem and more tender steaks (lower shear force [an instrumental measurement estimating tenderness] values) at one day postmortem compared to cattle not supplemented Zn². Muscle from cattle that were supplemented with only RH for the final 28 days before harvest had a higher pH at six hours postmortem and less tender steaks (greater shear force values) at one day postmortem compared to all other treatments, which was linked to less protein degradation (an indicator trait of tenderness). In that study, when Zn and RH were fed in combination, the positive influence of Zn on postmortem pH and tenderness values was nullified. The positive impact of Zn supplementation on tenderness development was shown at one day postmortem but not any other day (3, 7 or 14) of aging. Beef from cattle fed Zn had a more rapid improvement in tenderness but no difference in the extent of tenderness compared to other treatments. The influence of these production practices on tenderness development with longer aging times was not addressed in these studies but should be investigated.

In the current study, it was hypothesized that Zn and RH supplementation would impact tenderness development of steaks aged for more than 14 days postmortem. The objective of the experiment was to characterize how Zn and RH supplementation affects postmortem tenderness development and protein degradation of ribeye steaks throughout aging.

Crossbred Angus steers (seven steers per treatment) were fed one of four diets: control (CON-NO; no supplemental Zn or RH; analyzed 36 mg Zn/kg dry matter), supplemental Zn only (SUPZN-NO; CON diet + 60 mg Zn/kg dry matter from ZnSO₄ + 60 mg Zn/kg dry matter from Zn-amino acid complex for the 89-day trial), RH-only supplementation (CON-RAC; 300 mg RAC per steer per day starting 28 days before harvest) and supplementation of Zn and RH (SUPZN-RAC; SUPZN-NO and CON-RAC diets combined).

At finishing weights (greater than 1,590 pounds), steers were harvested at a commercial processing facility, and carcass characteristics were collected, at two days postmortem. Samples of the ribeye roll (*longissimus thoracis*) from each carcass were taken at two days postmortem for biochemical analysis, and ribeye rolls from the other side of the carcass were collected and aged for seven, 14, 28 and 42 days postmortem. Shear force values were measured at seven, 14, 28 and 42 days postmortem. The tenderness of fresh beef is highly influenced by enzymes in muscle that break down muscle proteins. One of the most important of

muscle from cattle supplemented with RH and more desmin degradation than all other treatments at two days postmortem, but significant differences in tenderness values were not observed at any point in time — only numerically lower values compared to treatments fed RH (seven, 14 and 28 days postmortem).

Effect	P-value
ZNTRT	0.69
RACTRT	0.02
ZNTRT*RACTRT	0.19

Consistent with our previous studies, Zn treatment resulted in a more rapid improvement of tenderness, but not a greater extent of tenderness development during longer aging times. The results confirm that supplementation of RH continues to result in a small, but negative, impact on tenderness development. The negative effect of RH treatment on tenderness was observed at seven, 14 and 28 days postmortem but not in steaks aged 42 days. The explanation for tougher steaks at seven, 14 and 28 days was due to less protein degradation characterized in this study by measuring desmin degradation. Zn supplementation showed evidence of enhanced proteolysis early postmortem (two days), demonstrating the potential influence of Zn on tenderness development early postmortem and numerically lower shear force values than ribeye steaks from cattle supplemented with RH. The study confirms that nutritional supplementation strategies can impact the rate of tenderness development impacting the rate of protein degradation during the aging process.

¹CON = no supplemental Zn, analyzed 36 mg Zn/kg dry matter; SUPZN = CON + 60 mg Zn/kg dry matter from ZnSO₄ + 60 mg Zn/kg dry matter from Zn-amino acid complex (Avala-Zn; Zinpro Corporation, Eden Prairie, MN). Fed for the entire 89 d trial.

²NO = no supplemental RAC; RAC = 300 mg RAC per steer per d (Actogain45; Zoetis, Parsippany, NJ) starting 28 d before harvest.

³Warner-Bratzler shear force values were averaged across two adjacent steaks.

REFERENCES


¹Lean, I. J., J. M. Thompson, and F. R. Dunshea. 2014. Meta analysis of zilpaterol and ractopamine effects of feedlot performance, carcass traits and shear strength of meat in cattle. PLoS ONE 9:e115904. <https://doi.org/10.1371/journal.pone.0115904>.

²Schulte, M. D., K. G. Hochmuth, E. M. Steadham, K. J. Prusa, S. M. Lonergan, S. L. Hansen, and E. Huff-Lonergan. 2021. The influence of supranutritional zinc and ractopamine hydrochloride supplementation on early postmortem pH decline and meat quality development of beef. Meat Muscle Biol. 5:1–15. <https://doi.org/10.22175/mmb.12250>.


³Vellini, B. L., L. F. Prados, F. P. Monção, A. K. Fireman, F. D. Resende, and G. R. Siqueira. 2020. Zinc amino acid complex in association with chromium methionine improves the feed efficiency of finished Nellore cattle in the feedlot. Anim. Feed Sci. Tech. 262:1–12. <https://doi.org/10.1016/j.anifeedsci.2020.114430>.

Schulte, M. D. & Hochmuth, K. G. & Steadham, E. M. & Prusa, K. J. & Lonergan, S. M. & Hansen, S. L. & Huff-Lonergan, E. J., (2023) “Carcass Characteristics and Quality Attributes of Beef from Cattle Supplemented Zinc and Ractopamine Hydrochloride,” Meat and Muscle Biology 7(1): 14457, 1-14. doi: <https://doi.org/10.22175/mmb.14457>

Opening image credit: GettyImages / dusanpetkovic / iStock / Getty Images Plus



- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi



Learn More ▶

STAY UP TO DATE WITH THE
LATEST INDUSTRY TRENDS!

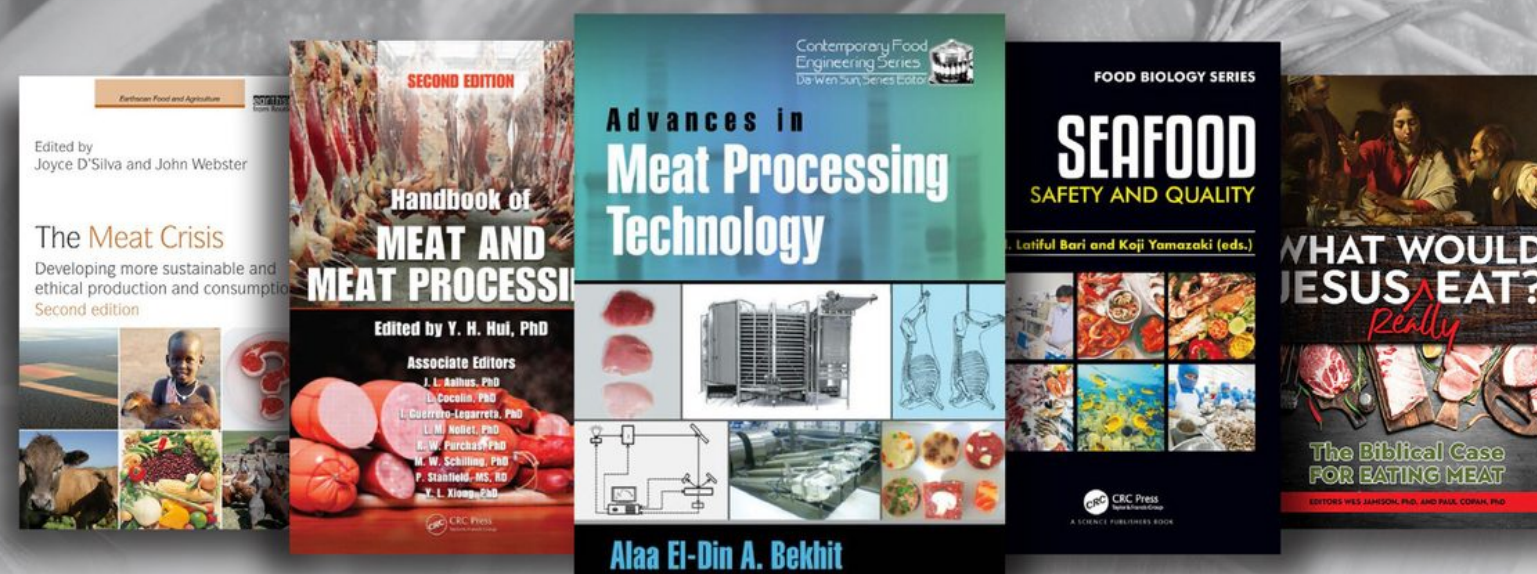
THE NATIONAL
PROVISIONER

130 YEARS OF EDITORIAL LEADERSHIP IN THE MEAT & POULTRY INDUSTRY

BOOKSTORE

⬅ BACK

NEXT ➡



Visit the National Provisionar Bookstore
for a variety of valuable resources to help you
grow in your industry knowledge and gain
insights to increase your business.



CELEBRATING INNOVATIONS IN POULTRY WORKER SAFETY AND HEALTH

POULTRY INDUSTRY WORKERS CREATE SAFETY AND HEALTH INNOVATIONS.

The Joint Safety and Health Council, made up of safety and health professionals of member organizations of the U.S. Poultry & Egg Association, National Chicken Council and National Turkey Federation, created the “Joint Safety & Health Council Frank Cruice Innovation in Safety & Health Award” in 2022. The awards aim to highlight the development of “equipment-based” and “process-based” innovations created by workers in the industry. The innovations must be pioneering or novel solutions proven to reduce occupational injuries/illnesses or improve safety awareness on the job or in public outreach.

What better environment to highlight these enrichments than at the International Production & Processing Expo (IPPE), where industry leaders come from around the world to learn about the latest innovations in production, processing and packaging. The Joint Safety and Health Council is excited to showcase four award winners recognized in 2023 who were honored at a special ceremony at the 2024 IPPE.

Two of the awards honored applicants for implementing equipment-related inventions that make lasting impacts to the safety and health of poultry industry employees. The first winner was Peco Foods in Pocahontas, Ark., which worked with a local manufacturer to design and develop a guard to remove sharp blades from processing equipment that had previously caused injuries. The guard was printed through 3D technology and is now being utilized companywide. The second award winner, Tyson Foods of Grannis, Ark., designed and patented a device that makes it possible to ascend and descend a portable A-frame or a caged ladder without the need to hold the high-pressure hose while climbing. The device allows employees to have three points of contact on the ladder to complete their tasks safely.

Two awards were also given for process-based innovations in safety and health that were developed and tested by the workers. Farbest Foods in Huntingburg, Ind., developed an interactive engagement program to proactively focus on hourly employees and inform them on best practices and expectations. The program has provided employees the avenue and opportunity to speak up during management walks, meetings and/or training. Employees are encouraged to report unsafe behavior and/or situations. The second award winner is Darling Ingredients, who developed a “Safety TikTok” video series focused on the Job Hazard Analysis (JHA) of each job in the production environment. The JHA videos of these tasks identify the operational steps and crucial safety rules to remember when performing the job. The goal was to develop a short video with a bit of humor that will provide educational content that employees will enjoy watching. The “actors” are the employees who execute the job.

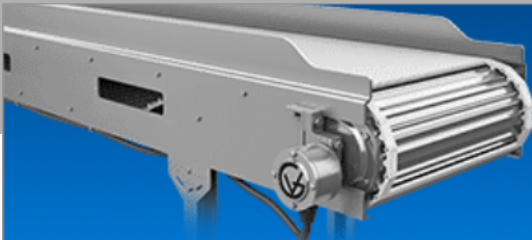
The Joint Safety and Health Council is honored to award these four organizations for sharing these successful innovations with the poultry industry. This award program highlights the industry's efforts to demonstrate that workers' safety and health improvements hold no competitive advantage in the poultry and egg industry. The industry succeeds when innovations that improve workers' safety and health can be shared.



BY MATT SPENCER
USPOULTRY

⬅ BACK

NEXT ➡



- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi





TASTING THE SPOILS OF ROBUST QUALITY CONTROL

MANUFACTURING OPERATIONS MUST PREVENT FOREIGN BODIES FROM MAKING THEIR WAY INTO FOODSTUFFS TO SAFEGUARD CONSUMER SAFETY AND AVOID THE REPUTATIONAL DAMAGE THAT CAN ACCOMPANY INSTANCES OF CONTAMINATION.

BY LUCA BERTONA

The presence of bacteria, heavy metals, and allergens in food can have widespread and devastating effects on consumer health. However, it is not just microscopic contaminants that can cause harm to the public. Manufacturing operations must also prevent foreign bodies from making their way into foodstuffs to safeguard consumer safety and avoid the reputational damage that can accompany instances of contamination. This highlights the importance of employing comprehensive quality control protocols in food production environments to identify and remove hazardous stowaways before they can reach the market.

COMMON CAUSES

It is usually discoveries of particularly bizarre or disturbing objects that end up gaining the most media attention. However, the majority of foreign bodies found in food tend to be more run of the mill, such as pieces of plastic or metal, and can originate from a wide range of sources. Contaminants can enter the product line through the harvesting of raw ingredients where it is relatively common for objects like stones to be scooped up and bagged along with the product. Heavy operations like mixing and grinding can cause pieces of worn machinery components to break off into the process line, and it is not unheard of for personal objects such as jewelry, PPE or pocket contents of line workers to accidentally make their way onto the conveyor. On top of this, errors during the packaging process can lead to errant pieces of plastic, foil, cardboard or cellophane contaminating the product.

The U.S. Department of Agriculture and the U.S. Food and Drug Administration both publish strict guidelines aimed at preventing product contamination with these items in order to avoid risks to the public, such as choking, oral cavity damage or perforation of the gastrointestinal tract. However, in the unfortunate event of a foreign object being discovered by a consumer, a full recall of all affected products may be required at great financial and reputational cost to the manufacturer.

⬅ BACK

NEXT ➡

DETECT AND DISCARD

The two most established technologies used to prevent such incidents in the food and beverage industry are X-ray scanners and metal detectors. Metal detectors use electromagnetic induction to interact with — and alert users to the presence of — highly conductive contaminants, making them suited to the identification of metal objects. However, food products with significant moisture or salt content — like those commonly involved in meat and poultry processing — may lead to false positives based on their high conductivity, warning operators of metal contaminant issues when, in fact, none exist. However, this “product effect” can be

CONCLUSION

Quality control is clearly an essential part of a robust food and beverage processing operation, as failure to prevent contamination can have serious consequences for consumers and producers alike. Fortunately, X-ray scanners and metal detectors can identify the presence of foreign objects in foodstuffs, and many manufacturers choose to adopt a belt and braces approach by employing both solutions to gain extra degrees of confidence. After all, in today’s world, it only takes one viral social media post about a contaminated product to leave a whole customer base with a bitter taste.

Luca Bertona is EMEA sales manager at Thermo Fisher Scientific.

Opening image credit: GettyImages / gorodenkoff / iStock Plus / Getty Images Plus



- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi





SOURCEBOOK PREMIUM SPONSORSHIPS

Our SourceBook is the meat processing industry exclusive directory and guide to suppliers of equipment and materials for the meat, poultry and seafood marketplace. It includes resources for conveyors, mixers, processing and packaging systems as well as information on consultants. *The National Provisioner* Sourcebook is designed to provide you with sources for these important products & resources. Below is a sampling of some of the companies featured in this year's directory. We invite you to reference the supplier logos below and click on them to learn more about each company's offerings. Plus, be sure to visit (and bookmark!) our easy-to-use online directory here. link to www.provisioneronline.com/sourcebook

 BACK



NEXT 

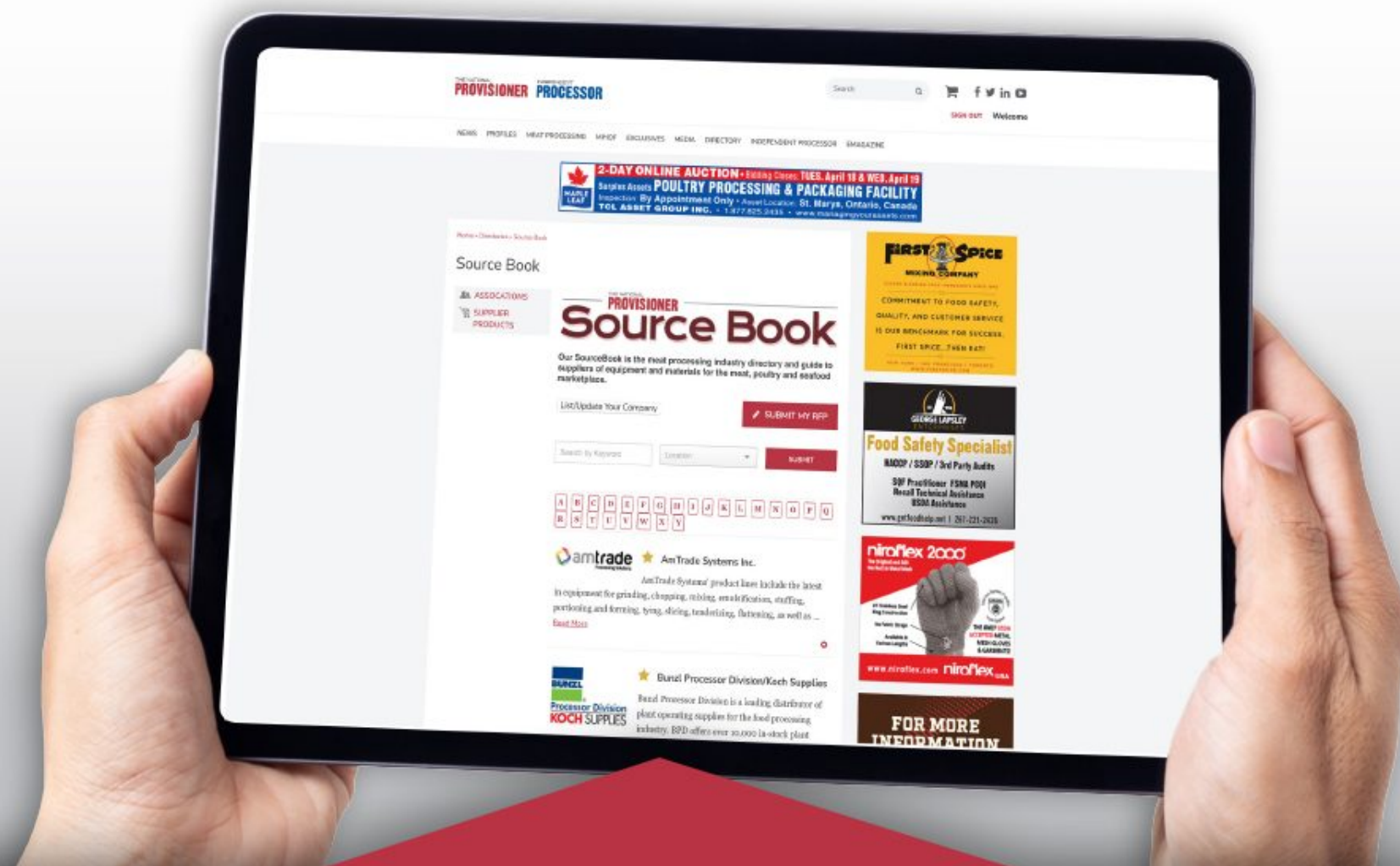


*Distributor and Supplier logos represent paid advertising. If you are a distributor or supplier and would like to receive information regarding your company's inclusion online and in future editions, contact Stacey Hurley at hurleys@bnpmmedia.com or (248) 786-1662.



THE NATIONAL
PROVISIONER

SOURCEBOOK



Start your search today

Find everything you need , right here!

🔍 Construction, Sanitation, & Maintenance

🔍 Cutting & Boning Equipment

🔍 Ingredients

🔍 Instrumentation, Computers & Controls

🔍 Processing & Packaging Equipment

🔍 Services, Supplies, & Merchandising

www.provisioneronline.com/sourcebook

« BACK

NEXT »



FEMALE PITMASTER PUTS A CHEF’S TWIST ON CHICAGO BARBECUE

CHEF DOMINIQUE LEACH RUNS CHICAGO-BASED LEXINGTON BETTY SMOKEHOUSE.

BY SAMMY BREDAR
ASSOCIATE EDITOR

Chef Dominique Leach is a multi-faceted female pitmaster. Though she first got her start learning from award-winning culinary figures in Chicago, she and her wife eventually ventured off to start Leach’s own catering business in 2016 called “Cater to You Events & Drop Offs.”

Though Leach said the catering company experienced growth in its first year, she wanted to build a brand that better reflected her creations. The Lexington Betty brand is named after Leach’s grandmother, Betty King of Lexington, Miss., and the home-cooked meals she would create during Leach’s childhood.

“I bought a food truck to roll out the concept, and it took off ... Within a couple of years, that food truck turned into my first brick-and-mortar restaurant which we quickly outgrew and moved to a new, bigger location later on,” Leach said.

Leach offers a variety of barbecue products at retail and wholesale, saying that the Lexington Betty Smokehouse Spicy Betty BBQ Sauce and our Wagyu Andouille Sausage are notably popular. “Everyone loves the bit of kick they offer, and they are versatile cooking items to use in a variety of dishes,” she said.

Aside from her other accolades, Leach has also worked as a Tastemaker for Mariano’s. She said that she had the desire to make her own line for retail, but she didn’t know where to begin.



DOMINIQUE LEACH

« BACK

NEXT »



“I would talk with their team about this and was very encouraged by their support, so once we established the Lexington Betty Foods line with Vander Farmers, they were happy to carry it,” she said.

Leach’s products are currently available at all 44 Mariano’s locations. Her Wagyu Beef Franks are available there, made in partnership with Vander Farms.

The partnership with Vander Farms first began around two years ago, Leach said. Though the original restaurant opened in September 2019, Lexington Betty Smokehouse moved to a new location in February 2020. The Vanders saw the grand reopening of

“Mindful sourcing and cooking everything from scratch are two major hallmarks of the Lexington Betty brand,” she said. “It’s also a welcoming space, where we encourage anyone and everyone to come as you are for a comfort meal like none other.”

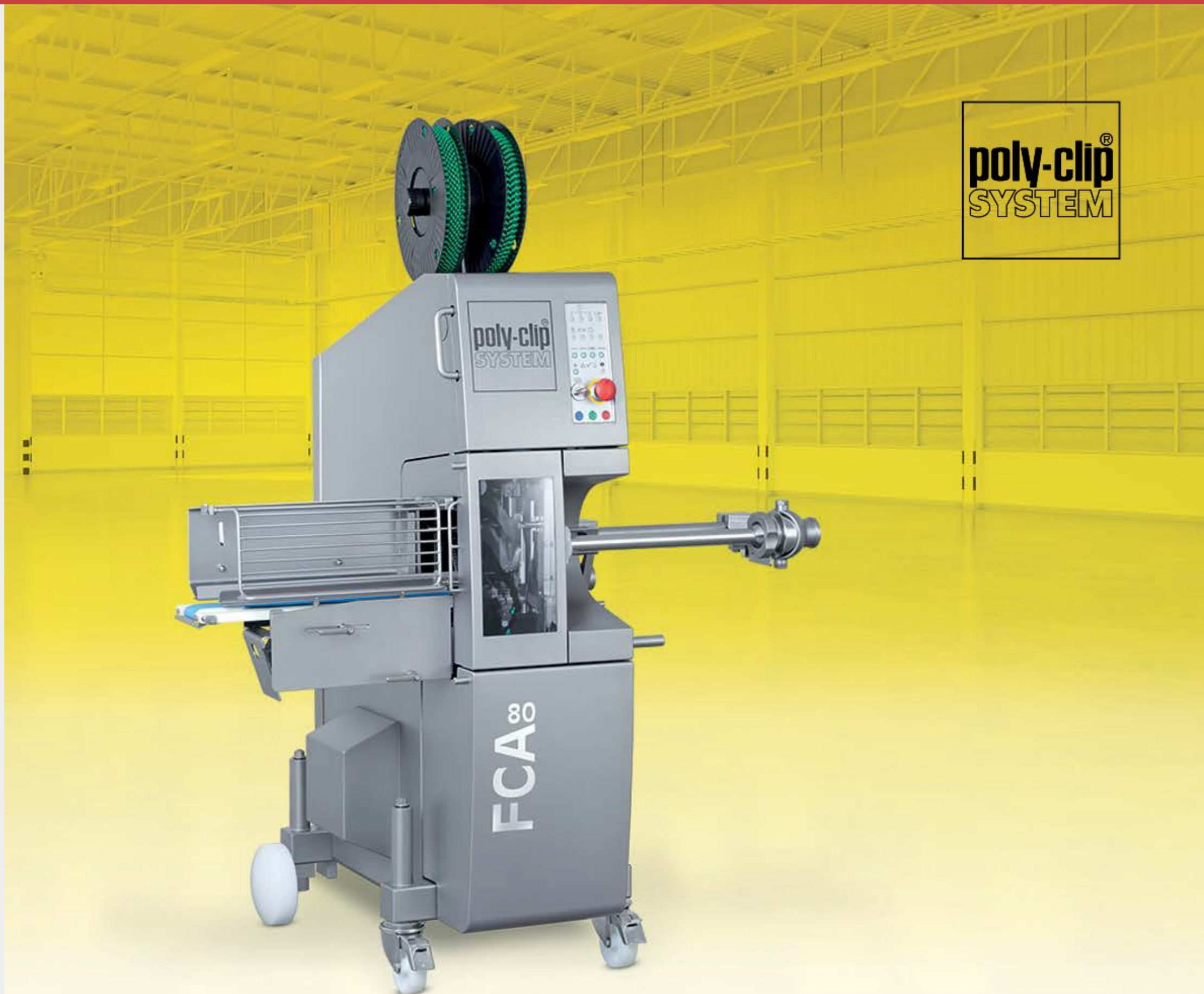


SSV Series
Drum Motors



Learn More ▶

← BACK TO CONTENTS

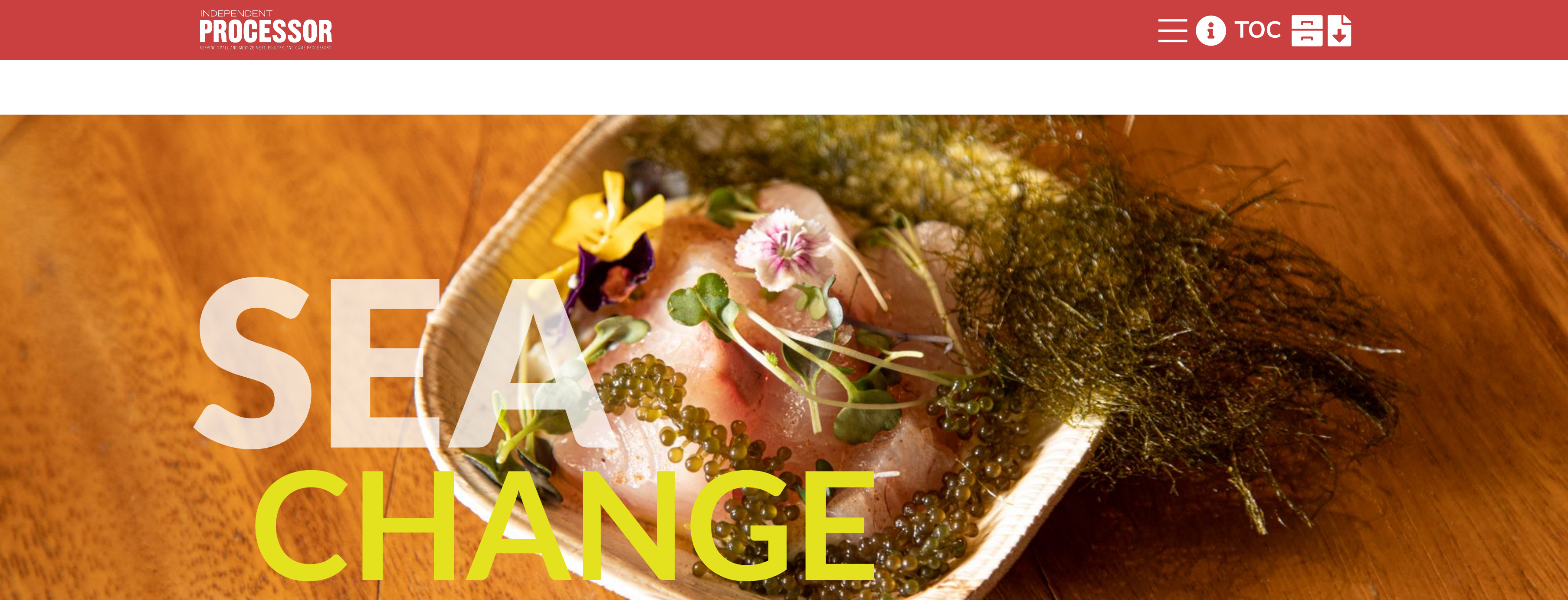


WORKS OVERTIME. EXCEEDS EXPECTATIONS.

FCA 80 AUTOMATIC DOUBLE CLIPPER

- + Increased throughput and versatility for midsize processors
- + Reduced labor and production times
- + Enhanced presentation with cleaner tails





AQUACULTURE STEWARDSHIP COUNCIL AIMS TO TRANSFORM SEAFOOD FARMING GLOBALLY.

BY FRED WILKINSON
CHIEF EDITOR

The Aquaculture Stewardship Council works with partners to transform seafood farming globally and promote the best environmental and social aquaculture performance toward environmental sustainability and social responsibility. ASC’s Erica Tardiff, U.S. market development manager, and Athena Davis, marketing manager for Aquaculture Stewardship Council North America, share some insights on the productions practices ASC seeks to support.

What operational efficiencies does aquaculture offer for finfish production vs. wild caught fish?

Aquaculture offers numerous efficiency benefits in the responsible production of fin fish. Immediate examples include:

- Aquaculture provides better monitoring of nutritional efficiencies of diet and ability to monitor water quality throughout a fish’s life cycle with effectiveness increasing even further in closed systems.
- Full control of life cycle i.e., water temp, pH, feeding amounts, etc.
- Aquaculture can create ideal conditions so that products are available all year round without reliance on seasonality, creating financial stability for producers and consistency for retailers and consumers.
- Consistent finfish farming can offer stable work for employees, avoiding the risk of fishing seasons being impacted by environmental legislation, cancellation of fishing seasons for at-risk species and environmental disasters.
- Easier harvest efforts that include a reduction of fossil fuel use.
- Aquaculture can bring an economic boost to costal and rural production areas.

— Erica Tardiff

What aquaculture products are best suited for production for small to mid-size operations?

Mollusks (clams, mussels, oysters), tilapia and seaweed are suitable for small production sites as they grow well in compact vertical spaces and aquaponics systems. Many other species could feasibly be farmed in small to mid-size sites, but market value per pound plays into this decision. For example, a small shrimp farm (low value) probably wouldn’t be financially sustainable compared to a high-value species like salmon, which could be profitable even at a small scale.

— Erica Tardiff

What are Aquaculture Stewardship Council’s sustainability goals?

The Aquaculture Stewardship Council is a global, nonprofit impact organization with a mission to transform aquaculture toward environmental sustainability and social responsibility. We do this by using efficient market mechanisms that create value across the chain. Ultimately, our vision is a world where aquaculture plays a major role in supplying food and social benefits for humanity while minimizing negative impacts on the environment.

Globally, ASC addresses targets within all 17 of the United Nation’s Sustainable Development Goals (SDGs) with more than 80% of these considered to be well or very well addressed [See: [ASC’s first SDG Report here](#)]

From a market perspective, we strive to create an environmentally responsible farmed seafood option for consumers. Our certification includes hundreds of environmental and social requirements for certified bodies to comply with starting right at the farm. Through chain of custody certification, each entity in the supply chain must then be audited to become certified. This means that when shoppers see ASC’s sea green label on seafood products, they can be assured that every step in the journey has complied with rigorous requirements designed to help achieve our broader sustainability mission.

— Erica Tardiff

WHAT NEW PRODUCT DEVELOPMENT AND/OR MARKETING OPPORTUNITIES DOES SUSTAINABLE AQUACULTURE PRESENT?

Sustainable aquaculture presents broad and exciting opportunities at virtually all levels, from new products to education that can positively impact purchasing decisions.

On the product side, we’re seeing a culmination of factors like affordability, consistency and product quality come together with responsible sourcing in farmed seafood products that are quick and easy, yet trendy enough to turn heads. This includes shelf stable, ready-to-eat seafood meals in unusual flavors, a resurgence of smoked fish tins, seaweed snacks and hot sauces, and a variety of value-added seafood products – from fresh to frozen – given a modern twist. Here are a few examples:

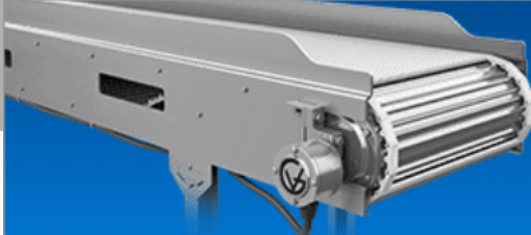
- Freshé’s Moroccan tagine gourmet meal with smoked salmon
- Fishwife’s smoked rainbow trout tins
- Cole’s Patagonian smoked salmon fillet in EVOO
- MOW! mojito lime flavored cold smoked salmon
- Sea Tales flame roasted smoked salmon

When it comes to marketing opportunities, the world is our oyster in terms of educating consumers about aquaculture, especially in North America. Farmed seafood has had a bad rap, but it’s also a widely unknown industry. We are inspired to share the story of its successful trajectory and multitude of benefits, including how responsible seafood farming can actually help preserve wild fish populations and protect our oceans. Today’s shoppers are keen to learn more about the food they are consuming, where it was sourced, how it was raised and whether they can feel confident serving it to their families.

There is an untold aquaculture story that taps into these values. ASC has been fueling this conversation through our nationwide “Sea Green. Be Green.” marketing campaign that encompasses tastings and sampling events, chef collaborations, social-digital applications and media outreach. Our goal is to make seafood more approachable in general, while bringing particular attention to the positive impacts that shopping and eating certified, responsibly raised seafood can offer.

— Athena Davis

Opening image credit: Aquaculture Stewardship Council



- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi



Designed, Manufactured, and Tested
in Middletown, Connecticut, USA

JHS
Hand-held Skinner

Maximize your yield at all skinning cut depths.



⬅ BACK

NEXT ➡



A FRESH(WATER) APPROACH

EAST COAST SUPPLIER BALDOR SPECIALTY FOODS HAS SEEN A SPIKE IN INTEREST IN FRESHWATER FISH, PARTICULARLY TROUT.

BY FRED WILKINSON
CHIEF EDITOR

One of the trends in specialty seafood technically isn't from the sea: it's freshwater fish.

Within the larger trend of local seafood, New York-based importer and distributor of specialty foods Baldor Specialty Foods has seen a spike in interest in freshwater fish, particularly trout.

Baldor x Pierless Fish works with local fisheries in Pennsylvania that have forged relationships with high-profile restaurants in the New York City area. (Baldor Specialty Foods bought Brooklyn-based seafood supplier Pierless Fish in 2020.)

"Trout have become really popular recently," said Michael Lettas, salesman at Baldor x Pierless Fish. Lettas said Green-Walk Trout Hatchery in Bangor, Pa., is an example of this trend.

"With a direct line to Michelin restaurants in the city, Green-Walk trout stands toe to toe with seasonality and sustainability to our industry," he said.

Baldor Specialty Foods — which serves more than 13,000 restaurant, foodservice, retail and corporate accounts in the Northeast and Mid-Atlantic regions — curates more than 6,000 items, including meat, poultry, fish and specialty items, with a focus on local, peak season and small farms.

Lettas said the waters of the Northeast are home to some of the best fishing in the country, with a huge spectrum of seafood — and chefs are taking notice.

"Now more than ever I've noticed that chefs only want Northeast Atlantic area fish, Maine fish," Lettas, said. "They want to feature smaller businesses, smaller fisheries and local suppliers."

Lettas said Baldor x Pierless Fish expects the trend toward locality and aquaculture to continue as foodservice businesses try to do their part to further sustainability efforts and help the environment.

"Restaurants have historically bought tuna from across the globe, but we source our sustainable, line-caught tuna from Captain Bob in Sea Isle, N.J., and we're seeing far more interest in the product than in past years," he said.



« BACK

NEXT »



SEAFOOD SNACKS AND ALT-SEAFOOD

- While seafood and on-the-go snacking may not be two things that many people commonly associate, East Coast Tuna Candy Inc. is rolling out new flavors of its dehydrated tuna-based snacks: Pineapple and Pineapple Habanero.
- On the alternative seafood front, Steakholder Foods is launching the world's first plant-based 3D-printed eel. The product is crafted to accurately replicate the texture of eel through precision layering and a unique combination of materials in Steakholder Foods' proprietary 3D printing technology. The company's 3D printed eel is currently based on plant materials and is expected to include cultivated eel cells in the future as economies of scale allow price-competitive cell development.



Opening image credit: GettyImages / TGwengoat / Getty Images Plus
Other images credit: Image courtesy Baldor Specialty Foods

- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi



NAVIGATING ENERGY PROCUREMENT IN MEAT PROCESSING

INCREASED ENERGY PRICES COULD BE THE STANDARD MOVING FORWARD. **BY LACY BATES**
SOUTHWEST MEAT ASSOCIATION

Lacy Bates, membership development manager of Southwest Meat Association, asked Chris Watson of Energy by 5 what the meat and poultry industry can expect from the energy market in 2024.

The team at 5 sets the standard for energy advisory firms in North America, helping commercial, industrial and public-sector clients create and implement energy plans.

1. What services does 5 provide to the meat industry?

5 sets the standard for energy advisory firms in North America, providing customized and comprehensive Whole Health Energy Plans to a wide variety of clients. 5 helps clients in the meat packing industry with their energy procurement needs, backup generation and resiliency efforts, operational efficiencies, usage analytics, sustainability efforts and much more.

2. What should meat and poultry processors be aware of in 2024, regarding energy?

Higher prices (especially in future winters) could be the norm going forward. Our recommendation is to have a robust energy procurement plan and stick to it. The worst thing an energy buyer can do is to continue to hope that energy prices fall to an unrealistic price point and then be forced to purchase at prices that are considerably above budget. Understanding where a market is and what is a reasonable price is critical in hitting budget numbers.

3. How can 5 assist small companies in measuring sustainability to reach their goals?

With access to energy data, 5 can calculate Scope 1 and Scope 2 emissions and then identify purchasing strategies to achieve the customer’s sustainability objectives. Potential strategies can include renewable energy certificates or offsets, or securing financial or physical energy from solar and wind farms or nuclear power plants. All of these instruments can be bundled into traditional energy supply contracts or handled via standalone agreements.

⬅ BACK

“THE TEAM AT 5 SETS THE STANDARD FOR ENERGY ADVISORY FIRMS IN NORTH AMERICA, HELPING COMMERCIAL, INDUSTRIAL AND PUBLIC-SECTOR CLIENTS CREATE AND IMPLEMENT ENERGY PLANS.”

NEXT ➡

4. When is the best time to purchase energy?

Frankly, there is no “best” time. Energy is a commodity and to some extent there is always value somewhere in forward pricing, but we understand clients have limitations. 5’s recommendations are guided by an understanding of the client’s objectives and market conditions. We are proactive with alerting clients to both market opportunities and risks.

5. How can Energy by 5 help companies with electricity and natural gas procurement needs?

Energy by 5 can help companies with electricity and natural gas procurement needs by providing a comprehensive energy audit and monitoring market conditions for the ideal time to run this process again for the next contract term.

6. What is Level5? How can it benefit meat and poultry processors?

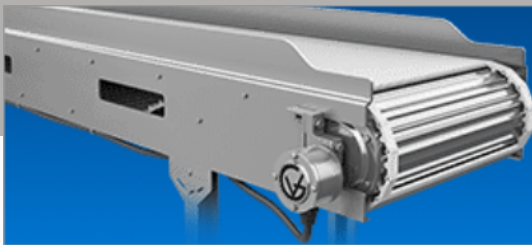
Level5 is a proprietary online platform built by 5 that serves as an energy data repository to help clients identify demand-side management opportunities. Level5 also provides unparalleled insights and transparency into wholesale natural gas and electricity market data that is not available to most end-use customers. 5 uses this market data to help clients to develop customized energy management strategies and make better energy purchasing decisions.

**RELIABLE FOOD
PROCESSING EQUIPMENT**
www.birosaw.com

- **No block sawing - saves 8-10 labor minutes per block**
- **Better utilization of the power saw**
- **Save 2.5 lbs of meat per block - No sawdust**
- **No measurable product shrinkage**
- **No meat block pre-prep time**
- **Reduce saw blade usage**
- **Better quality control**

011 Biro_09-23

Opening image credit: GettyImages / s-cphoto / iStock / Getty Images Plus



- ▶ Eliminate Drive Sprockets
- ▶ IP69K-rated Sealing System
- ▶ Washdown Up to 3,000 psi



AD INDEX



FRAMARX

WWW.FRAMARX.COM

»»CLICK HERE TO SEE AD

JARVIS PRODUCTS

WWW.JARVISPRODUCTS.COM

»»CLICK HERE TO SEE AD

»»CLICK HERE TO SEE AD

NAMI

MEATCONFERENCE.COM

»»CLICK HERE TO SEE AD

OSSID

WWW.OSSID.COM

»»CLICK HERE TO SEE AD

VAN DER GRAAF

WWW.VANDERGRAAF.COM

»»CLICK HERE TO SEE AD



BIRO SAWS

WWW.BIROSAW.COM

»»CLICK HERE TO SEE AD

BUNZL PROCESSOR DIV., KOCH SUPPLIES

WWW.BUNZLPD.COM

»»CLICK HERE TO SEE AD

JARVIS PRODUCTS

WWW.JARVISPRODUCTS.COM

»»CLICK HERE TO SEE AD

»»CLICK HERE TO SEE AD

POLYCLIP

WWW.POLYCLIP.COM/EN

»»CLICK HERE TO SEE AD



New

SSV-XP Drum Motor
Exchangeable Profiled Sleeve



Learn More ▶

Designed, Manufactured, and Tested
in Middletown, Connecticut, USA

Small Processor Line
SEC 180-4 & BUSTER-5 & PAS Type P

Full line solutions for niche
processing operations.



⬅ BACK

NEXT ➡

EDITORIAL BOARD

Phil Bass | University of Idaho

Tim Biela | Industry Consultant

Doug Britton | Georgia Tech Research Institute

Joe Cordray | Iowa State University

H. Russell Cross | Texas A&M University

Dan Emery | GreenStar Cooperatives

John E. Johnson | Epsilon Industries

Leigh Ann Johnston | Tyson Foods

Lynn Knipe | Ohio State Universtiy

Drew Lorenz | We R Food Safety

Phillip Slater | www.SparePartsKnowHow.com

Suzanne Strassburger | Strassburger Meats

Steve Valesko | Butterball LLC

Kurt Vogel | University of Wisconsin - River Falls

Chris Young | AAMP

⏪ BACK

NEXT ⏩

CONTACT US

PH: (248) 362-3700 | MAIL: 2401 W. BIG BEAVER RD, TROY MI 48084

⏪ BACK TO CONTENTS



New SSV-XP Drum Motor
Exchangeable Profiled Sleeve



VDG
Van der Graaf
[Learn More ▶](#)

PUBLISHING/EDITORIAL STAFF

EDITORIAL

Douglas J. Peckenpaugh | Group Publisher
peckenpaughd@bnpmedia.com | (847) 770- 5916

Fred Wilkinson | Managing Editor
wilkinsonf@bnpmedia.com | (251) 677-2980

Samantha Bredar | Associate Editor
bredars@bnpmedia.com | (770) 330-8184

Bethany Vorseggern | Audience Development
vorseggernb@bnpmedia.com

Cory Emery | Art Director emeryc@bnpmedia.com

Jennifer Allen | Advertising/Production Manager
allenj@bnpmedia.com | (248) 833-7347

CORPORATE

Chief HR & Infrastructure Officer | Rita M. Foumia

Chief Production Officer | Vincent M. Miconi

Chief Financial Officer | Lisa L. Paulus

Chief Operating Officer | Nikki Smith

Chief Creative Officer | Michael T. Powell

Panel and Research Director | Ariane Claire

Chief Event Officer | Scott Wolters

SALES

Chris Ward | Account Manager
 AL, CT, DE, FL, GA, KS, MD, ME, NC, NJ,
 NY, PA, RI, SC, VA, VT, Puerto Rico
cbwmedia.llc@bnpmedia.com | (678) 361-7815

Wayne Wiggins | Account Manager
 AK, AZ, AR, CA, CO, HI, ID, IL, IN, IA, KS, MI,
 MN, MO, MT, NE, NV, NM, ND, OH, OK, OR, SD, UT, WA, WI, WY
wwiggins@wigginscompany.com | (415) 377-6130

Jennifer Izzo | Account Manager
izzoj@bnpmedia.com
 (847) 226-6729

EVENT & WEB MARKETING

Erin Mygal | Directory Development Director

Reprints | reprints@bnpmedia.com

**For subscription information or service,
 please contact Customer Service at:**

Phone: 1-800-952-6643

Email: nationalprovisioner@omeda.com

List Rental | Please contact your sales representative.

Website | www.provisioneronline.com



(THE) NATIONAL PROVISIONER (NP) THE NATIONAL PROVISIONER (ISSN: Digital 1938-3835) is published 12 times annually, monthly, by BNP Media II, L.L.C., 550 W Merrill St., Suite 200, Birmingham, MI 48009-1443. Telephone: (248) 362-3700, Fax: (248) 362-0317. Copyright 2024, by BNP Media II, L.L.C. All rights reserved. The contents of this publication may not be reproduced in whole or in part without the consent of the publisher. The publisher is not responsible for product claims and representations. Change of Email Address: Send an email to: nationalprovisioner@omeda.com For subscription information or service, please contact Customer Service at: Phone: (800) 952-6643 Fax: (847) 763-9538.



New SSV-XP Drum Motor
Exchangeable Profiled Sleeve



VDG
Van der Graaf
[Learn More](#)