

Eats, Drinks and Treats

Process Expo and Pack Expo Highlight the Latest Technology for Food & Beverage Applications

Matthew Jaster, Senior Editor

Industrial applications for the food and beverage industry require certain parameters.

They must be efficient, reliable, robust and most importantly clean. Components in this industry have to meet the challenges of the harshest environments in order to maintain strict global regulations and standards. *PTE* has assembled a preview of some of the products featured at Process Expo (Chicago, Illinois) and Pack Expo (Las Vegas) that will interest anyone involved in these system-critical areas.

Process Expo 2017

Process Expo represents the pinnacle of food technology bringing together the world's most successful food and beverage processors, equipment manufacturers and leaders in the field of academia. It is owned and organized by the Food Processing Suppliers Association (FPSA), a global trade association serving suppliers in the food and beverage industries. Nearly 600 food processing and packaging exhibitors will display machines, products and services specific to food and beverage processing. Here are some of the Booth's you should stop by at McCormick Place in Chicago from September 19-22:

Baldor

Booth 673 (North Hall)

It's essential that your food processing operation runs efficiently, with full attention to food safety. Every process is critical to a facilities success, and it's imperative that the safest products are specified for the intended application, not only for the safety of the food, but for the life of the driven equipment.



Baldor-Reliance motors and Dodge mechanical power transmission products are designed around food industry sanitation standards with smooth rounded surface textures, minimal crevices and proper sealing for ultimate reliability in environments subject to direct contact with food. Food safe products also undergo stringent testing to carry IP69K for water ingress protection rating for the high pressure, high temperature cleaning methods.

Stop by Baldor Electric Companies Booth (#673) at Process Expo and meet with industry experts to learn more about specifying the correct products for different zone environments. (www.baldor.com)

Baumer Sensors

Booth 2834 (North Hall)

With its wide range of reliable stainless steel sensors in a robust washdown or hygienic design, Baumer offers a unique product portfolio for the food and beverage industry. The sensors meet the highest standards concerning detection reliability, durability, leak tightness and reliability, even in demanding environments. The sensors as well as the extensive accessories are compliant with the required standards and regulations, e.g. Ecolab, FDA and EHEDG.

Features include: innovative flow, pressure, temperature, level and conductivity measurements in industrial process engineering, precise measuring tasks down to the micrometer range, efficient position detection of objects with different sensor principles (photoelectric, ultrasonic, inductive, capacitive), image-based identification and object recognition with smart vision sensors and cameras and reliable encoders for motion control tasks. (www.baumer.com)

Brother International Corp.

Booth 4302 (North Hall)

The new IE3 premium efficiency gearmotors offer increased efficiency over standard IE1 models throughout the speed range and initiate less mechanical stress, which directly translates into long-term energy savings. The IE3 gearmotors run cooler and with less noise and, as they are sealed for life and require practically no maintenance, reduce costly downtime. Two factors in the enhanced durability of Brother's IE3 gearmotors are the company's ultra-long-lasting e-coat paint and lubrication through premium H1 food-grade grease.



Additionally, Brother offers sub-fractional AC gearmotors and reducers for the food and beverage, packaging and material handling industries. The company expanded its mid-series product line with the addition of the G3, H2 and F3 series of fine-pitch gearmotors with $\frac{1}{8}$ to 3 horsepower capabilities at its U.S. manufacturing facility in Tennessee.



The models showcase Brother Gearmotors' standards for smaller, lighter, reliable and efficient power transmission components. Each features hypoid or helical gearing, which leads to greater torque output and allows for smaller motors to aid in energy efficiency.

(www.brother-usa.com/gearmotors)

Cone Drive

Booth 3810 (North Hall)

Cone Drive's Series B reducers provide an economical, flexible, and compact solution to fulfill the low-to-medium power range requirements. With capabilities up to 20 hp and output torque up to 5,000 lb in. in a single stage, Series B can provide design flexibility with lasting performance.

The Accudrive Series RG is a compact right angle precision drive providing an economical solution for your general automation applications. Built around the Cone Drive double-enveloping worm technology, the Accudrive Series RG is available in standard and low backlash options.

The Accudrive Stainless Servo precision motion drives are designed for sterile manufacturing environments. The product's smooth surface and curved contour allows for easy cleaning and bacteria-free surfaces, perfect for food processing and pharmaceutical applications. The product is designed and rated to IP69k providing maximum protection against contaminant ingress as well as leak free operation.

Accudrive Series P high precision inline planetary servo drive will satisfy your most demanding automation applications. The compact design, universal housing with precision bearings and precision planetary gearing provides high torque density while offering high positioning performance. (www.conedrive.com)

Garlock Sealing Technologies

Booth 1673 (North Hall)

Garlock is a multinational manufacturer of high-performance fluid sealing and pipeline solutions with an emphasis on safety, longevity, and productivity. The company works in partnership with its customers, industry associations, and governmental entities to understand their unique sealing challenges and respond with innovative solutions that keep people safe while increasing profitability.

Garlock sealing solutions protect millions of people every day from exposure to life-threatening materials. Durability, ease of maintenance and other benefits are essential to the value of using a Garlock sealing solution, but without safety, none of those other factors would matter.

For more than a century, the Garlock family of companies has been helping customers across the globe efficiently seal the toughest process fluids in the most critical applications. They are presenting their portfolio of premium sealing solutions for challenging applications in the food industry. Garlock designs and manufactures a comprehensive range of solutions for a multitude of processes.

(www.garlock.com/en/)

Stober Drives, Inc.

Booth 2637 (North Hall)

The quality-proven, high-efficiency MGS "K" Series speed reducer is available in a stainless steel housing as the "KSS" Series. The adaptability of the double-side, wobble-free, stainless steel bushing system (with expanded bore sizes) makes this unit ideal for the harshest washdown application.



The "PSS" is machined from 16-2 stainless steel bar stock and is capable of handling output torques up to 3,894 in. lbs. Using this planetary reducer ensures exact alignment and minimal wear.

Through constant innovation and development, Stober has become known for high performance, high efficiency, and low noise throughout its various gearing solutions for industrial applications. Visit the website for additional products and services.

(www.stober.com)

Process Expo 2017

September 19–22

Chicago, IL

www.myprocessexpo.com

Pack Expo 2017

Pack Expo Las Vegas, North America's largest packaging event of 2017, will bring together the solutions needed to launch new products and solve production issues. Corporate managers, engineers, sales managers, plant managers, manufacturers and production supervisors, brand and marketing managers, quality controllers, purchasers, research/development and package designers from a wide variety of consumer packaged goods companies (CPGs) will be in attendance. More than 2,000 exhibitors will display state-of-the-art technologies, equipment and materials. The show is co-located with the Healthcare Packaging Expo, bringing pharma/biopharma, nutraceutical and medical device manufacturers together for the latest trends, innovations and solutions. (September 25-27)

Baldor

Booth 5242 (Central Hall)

Now more than ever, it is vital that food and beverage & pharmaceutical companies choose supplier partners that understand their processes and offer a full range of solutions. Stop by the ABB Booth (#N-5242) to see the latest product innovations for the industry. In the booth attendees will find a completely operational packaging line integrated with a full portfolio of products offered across ABB business units.

On display will be Baldor-Reliance motors along with Dodge mechanical power transmission products designed for multi-shift food and pharmaceutical processing applications. The comprehensive portfolio aims to minimize energy costs while providing reliability in some of the toughest environments.

Baldor-Reliance stainless motors and Dodge Ultra Kleen gear reducers carry IP69K for water rating to ensure reliability in high pressure and high temperature washdown environments.

ABB HDS servomotors are designed at high pole counts to provide more torque and less cogging for greater positioning accuracy, speed and efficiency.

Stop by the Booth (#N-5242) and talk with ABB industry experts to solve your specific application challenges. (www.baldor.com)

Emerson

Booth 5222A (Central Hall)

Emerson's Numatics 500 Series Zoned Safety Manifold with G3 fieldbus electronics offers an effective alternative to redundant safety dump valves to meet the Machine Safety requirements of the Machinery Directive and ISO 13849-1. The manifold system has the ability to control multiple and independent groups of pneumatic valves that operate a section of a machine, disabling air and power only to the components in the zones that control equipment that will come in contact with the operator. This ensures operator safety and allows the rest of the machine to remain in operation when these safety circuits are enabled.

Packaging lines without the ability to effectively seal various container sizes and complexities experience more rejects and recalls, raising operating expenses and damages reputation. Emerson's Branson DCX-F is a compact ultrasonic welding power supply that achieves consistent weld quality through continuous system monitoring and closed-loop process control. The DCX-F features five weld modes controlled by a PLC over a Fieldbus network for enhanced automation control. The DCX-F's real-time feedback of weld-quality indicators and accurate output amplitude result in greater weld consistency and fewer rejects regardless of package complexity.

Emerson's SolaHD SDU-A Series DIN Rail AC UPS System with optional communications card is an uninterrupted power supply that helps operators stay safe by delivering protection from damaging impulses and power interruptions to microprocessor-based devices. During a power disturbance, the technology provides immediate back-up AC for up to four minutes so that processes can continue or be intelligently shut down without causing unsafe conditions. The unit also enables operators to safely control the power restart without untimely accidental circuit re-energization. UPS status updates while the SDU-A is running helps operators prevent equipment hazards.

(www.emerson.com)

J.W. Winco

Booth 6060 (South Lower)

J.W. Winco, Inc. offers stainless steel parts for industries with very high corrosion resistance, hygienic properties, and the ultimate in material quality.



When you need to align, hold, or latch different parts of equipment together, you need a spring loaded device. These components use the force in the spring to apply pressure so that the ball or nose will remain nested in some sort of hole or other receptacle. Thus two or more elements of equipment can be aligned or fixed into a determined relative position. Indexing plungers have a beveled or rounded nose that inserts easily into an indexing receptacle. Our indexing plungers include features like cam action, lock-out or non lock-out types, threaded bodies, weldable mounting flanges, long knobs, plate mounts, ring or L-handles, and more.

Adjustable levers are clamping components that offer a ratcheting feature that is especially useful in tight spaces. Their design also allows for easier visual adjustment to specific positions, and their ergonomic shape makes them user-friendly. They are ideal for situations where more torque is required than can be achieved with a simple knob. (www.jwwinco.com)

Neugart USA Corp.
Booth 5841 (South Lower)



Neugart's Hygienic Design Gearbox (HLAE Series) offers functionality as well as residue-free cleaning of your food processing plant – whether you are producing, handling, dosing, cutting, positioning, or packaging food. The units of the HLAE series reliably drive your processes and are designed for fast and thorough cleaning at the end of the workday. Applications include filling plant/dosing feeder, slicer, belt drives satisfying all hygienic requirements and all apps using CIP (Cleaning in Place).



For when cleaning the machine is the most basic requirement for the end customer. Dirt residues, contaminated with germs or bacteria, tend to accumulate at edges, in corners, and in pockets. The geometry of their gearboxes is certified for optimum cleaning properties and maximum hygiene.

(www.neugartusa.com)

Regal Beloit Corporation
Booth S-8022 (South Upper)

Regal offers a full line of power transmission equipment and mounted bearings for complete integrated solutions: unit material handling applications specifically focused on the food and beverage industry. Regal has emerged as a leader in the growing craft brewery industry as craft brewers grow and need to automate their production. Brands such as System Plast modular plastic belts and conveying components, Hub City speed reducers, Grove Gear worm gear and helical speed reducers, LEESON motors and SealMaster mounted bearings have provided compelling value propositions for craft brewers.



System Plast modular plastic belts with NG Evo components combined with NOLU S guides have allowed brewers to run dry in applications where conveying systems typically have used soap and water lubrication. NG Evo components significantly expands options for dry conveying to meet sustainability and water conservation goals which have resonated with craft brewers such as Sierra Nevada, New Belgium and MadTree Brewing, to name a few. NG Evo chain also reduces the costs and energy for water reclamation and treatment, and eliminates the wear paste buildup caused by mineral oil-based dry lubricants.

The companion System Plast Nolu-S wear strips and guides enable reduced-lubrication or lubrication-free, high-speed conveyor operation. They are made of a unique resin with a solid lubricant that dramatically reduces the coefficient of friction. Nolu-S wear strips help reduce noise, energy con-

sumption, squeaking and chain pull/belt fatigue. The combination of NG Evo chain and Nolu-S wear strips can reduce a conveyor's energy requirements by up to 30 percent, with a service life as much as five times greater.

The Hub City HERA (High-Efficiency Right Angle) speed reducer provides additional value in energy and space savings over the traditional worm gear speed reducers often used in these conveying applications. The HERA speed reducer comes in cast iron, epoxy coated and stainless steel corrosion-resistant units packaged with LEESON premium efficient stainless motors, leading to significant efficiency level improvements over traditional drive packages.

HERA reducers deliver 90 percent efficiency in all ratios with up to a 40 percent reduction in energy. Torque-dense with double the capacity of worm drives, HERA drives reduce motor size requirements, as well as the physical size of the drive package. HERA reducers save up to \$550 per year with each increment of motor horsepower for rapid payback, and they are warranted for three years.

Grove Gear is a market-leading brand of enclosed speed reducers with one of the broadest lines of stainless steel worm gear reducers available for the food and beverage industry. Stainless Steel Center distances are offered with rapid delivery from 1.33" through 3.250", with six sizes available and ratios from 5:1 to 3600:1.

SealMaster PN Gold Mounted Ball Bearings have been used extensively in these applications. They meet both CIP (Clean in Place) and SIP (Steam in Place) sanitation requirements. High-performance, triple-lip contact seals provide multidirectional sealing to help exclude contaminants and retain lubrication. (regalbeloit.com) **PTE**

Pack Expo 2017

September 25-27
Las Vegas, NV
www.packexpololasvegas.com