

# Energy Efficiency, Configurable Solutions Highlight Pack Expo

Randy Stott, Managing Editor

A wide variety of companies displayed mechanical power transmission and motion control technologies at Pack Expo, held in November in Chicago. The event, which is the largest packaging and processing trade show in North America, attracted more than 48,000 attendees, according to show owner and producer PMMI. The four-day event included 2,352 exhibiting companies, an increase of more than 19 percent from the previous show in 2012.

“Pack Expo International 2014 was definitely a success,” said Jim Pittas, senior vice president of PMMI. “Exhibitors sold machines right off the show floor and collected high quality leads from the steady flow of attendees.”

Mechanical components and motion control were definitely a big part of that mix. Following are some of the highlights from power transmission and motion control exhibitors.

## Bosch Rexroth

INCREASES THROUGHPUT WITH ADAPTIVE SYSTEMS

Adaptive Systems technology minimizes unwanted movements like oscillations and vibrations, increasing process throughput by up to 50 percent.

Bosch Rexroth offers Adaptive Systems motion control technology directly at the drive level to reduce unwanted movements in industrial machinery. The technology alleviates movements including oscillations, vibrations, sloshing and sway.

Vibrations and oscillations are simple, repetitive motions, but they're governed by complex factors of wave physics. The complex nature of waves often makes traditional vibration control methods ineffective. Because implementing vibration damping and avoidance techniques requires a control system that can quickly adapt to varying process, material and application changes, Rexroth offers Adaptive System technology directly at the drive level, rather than at the higher control level.

Rexroth Adaptive System motion control can handle high-speed inputs and deterministic events with closed-loop response times. Current closure can be accomplished in 62.5 microseconds, speed loop closure in 125 microseconds, and position closure in 250 microseconds.



Rexroth Adaptive Systems technology is implemented from the company's IndraMotion MLD drive-based motion logic controller. Rexroth IndraDrive intelligent servo drives with sensors monitor the status of axis mechanics. Additionally, Rexroth Productivity Agent software uses the drive as an intelligent sensor to monitor, analyze and reduce vibrations in real time.

### For more information:

Bosch Rexroth Corporation  
[www.boschrexrothusa.com](http://www.boschrexrothusa.com)

## Emerson Power Transmission

INTRODUCES UPGRADED CONVEYOR CHAIN

Emerson's Power Transmission Solutions business introduced its new System Plast NG Evo conveyor chain, featuring a proprietary, low-friction FDA-approved material for dry conveying in food packaging applications.

“NG Evo builds on the success of original NG chain, which is widely used for dry conveying in the bottling industry,” said Jeff Himes, System Plast Senior Product Manager. “The new chain provides a higher breaking load, greater elasticity, lower coefficient of friction and much greater abrasion

resistance than the original. NG *Evo* significantly expands options for dry conveying to meet sustainability and water conservation goals, which will grow in importance for food packaging as the U.S. already grapples with regional water shortages.

“All of the physical properties of the original NG chain have been enhanced to meet specific challenges in food processing applications,” Himes added. “In addition, beverage handling conveyors are typically lubricated with soap and water

# Brother Gearmotors

EXPANDS RANGE FOR NORTH AMERICAN CUSTOMERS

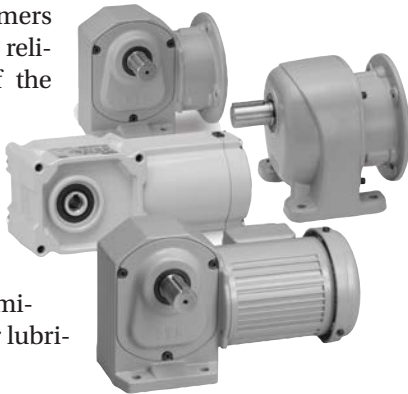
Brother Gearmotors, a manufacturer of sub-fractional AC gearmotors and reducers for the packaging, food & beverage and unit handling industries showcased several new benefits for customers in North America.

Gearmotors from Brother are compact in size, energy efficient and sealed for life, says Matthew G. Roberson, senior director for OEM and gearmotor business. Each model comes with a long-lasting protective paint coating whose electrostatic application assures a consistently tough, chemically-resistant coating designed to withstand especially harsh production environments.

According to Roberson, Brother customers who have installed Brother gearmotors often become customers for life. Durability and reliability are hallmarks of the Brother product line, he says. All gearmotors carry a high-grade grease standard, which means they are lubricated for the life of the product, helping to eliminate costly downtime for lubrication changes.

At its booth, Brother announced new bore sizes that open up a broader potential customer base for the company's gearmotors.

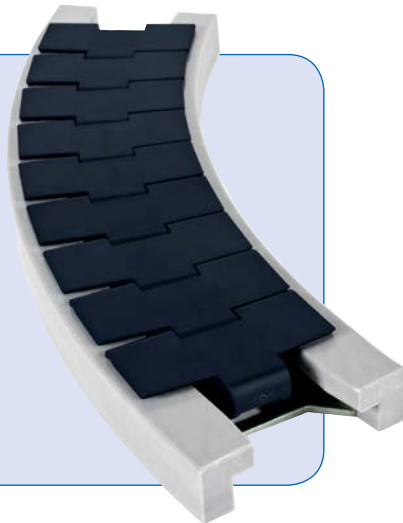
In addition, this summer Brother Gearmotors moved into a new world-class manufacturing facility, based in Bartlett, Tennessee. The modernized assembling facility - both ISO 9001:2008 and ISO 14001:2001 certified - allows Brother Gearmotors to shrink lead times for customer orders to an estimated three days. On-site technology also makes available a broader product mix to North American customers, including 16 different gear ratios and six voltage options. The facility will be a North American complement to the primary gearmotor factory, which has produced more than 10 million units over its 40-year history.



that uses two to three times more water than goes into the finished product.”

### For more information:

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# Igus Energy Chains

SIGNIFICANTLY REDUCE DRIVE POWER

Recent tests and sample calculations performed at igus' test laboratory prove energy consumption can be drastically reduced by using the right cable

carrier material with a sophisticated design, especially in long-distance, high-load applications. If Rol E-Chain—a specially designed cable carrier with

built-in wheels that rolls instead of glides to facilitate travel over long distances—is used, the friction factor is drastically reduced from 0.3 to less than 0.1. This correlates to a 37 percent reduction in drive power with Rol E-Chain when compared to a traditional gliding application, as well as a significant decrease in overall costs.

Metal cable carriers are being replaced more and more by plastic Energy Chains because they are lightweight, require no lubrication and can withstand even the toughest applications.

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# Ringfeder Power Transmission

ANNOUNCES NEW LOCKING ASSEMBLIES

New locking assemblies from Ringfeder include a central lock nut for safe and backlash-free clamping in a matter of seconds. Labeled the RfN 7070, RfN 7075, RfN 7085, and RfN 7090 series, these locking assemblies are designed for easy mounting, compact dimensions and a safe connection between the shaft and hub.

Shaft-hub connections in modern transmission systems require smaller, faster and more powerful technology. Examples include applications with backlash-free synchronous transmissions powered by compact servo or multiphase motors, where positioning is critical. Conventional joints with keyways, grub screws and simple bushings do not guarantee zero backlash in such precision applications.

### For more information:

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