Regal Beloit

ACQUIRES POWER TRANSMISSION SOLUTIONS OF EMERSON ELECTRIC

Regal Beloit Corporation recently announced it entered into a definitive agreement to acquire the Power Transmission Solutions business (PTS) of Emerson Electric Co. for approximately $1.4 billion in cash plus $40 million of assumed liabilities.

"This acquisition will be transformational for Regal," said Regal Beloit Chairman and CEO Mark Gliebe. "PTS will broaden our portfolio, diversify our end market exposure and strengthen our global footprint. PTS brings complementary products and well-known brands, but more importantly a very talented team who are experts in their markets as well as very strong operators. We are excited to have PTS as part of the Regal family and we look forward to growing with them in our future."

PTS is a manufacturer of highly engineered power transmission products and solutions. The business manufactures, sells and services bearings, couplings, gearing, drive components, and conveyer systems under brands including Browning, Jaure, Kop-Flex, McGill, Morse, Rollway, Sealmaster and System Plast. With annual revenues of approximately $600 million, PTS has over 3,000 employees around the world. PTS will become part of Regal's newly-defined Power Transmission segment.

"PTS is a strong business with an outstanding management team and excellent brand recognition," said Emerson Chairman and Chief Executive Officer David N. Farr. "The business will benefit by joining Regal, who has a proven track record of success in building and growing businesses. Regal management estimates 2015 accretion between $0.40 and $0.60 per share including purchase accounting adjustments and closing costs, and 2016 accretion between $0.95 and $1.15 per share. Transaction synergies are estimated to be $30 million within a four year period."

The transaction, which is subject to customary closing conditions, is expected to close in the first quarter of 2015. Shareholder approvals are not required to complete the transaction. Robert W. Baird & Co. served as the exclusive financial advisor to Regal. White & Case LLP served as the legal advisor to Regal.

Star SU

FORMS ALLIANCE WITH PROFILATOR

Star SU LLC recently formed an alliance with Profilator to manufacture Scudding tools for the global market and in North America, in cooperation with GMTA in Ann Arbor, MI.

Scudding is an improvement on traditional power skiving technology for gear production. Often thought to be limited to internals only, Scudding is beginning to compete in shaping, broaching and other gear cutting applications for gears and splines.

"Star SU is using its vast experience of gear cutting tool technology for new tool development, as well as its tool service centers to support Profilator on this new technology process," said David Goodfellow, president of Star SU LLC. "We are looking forward to working with Profilator and GMTA and see this as mutually beneficial for each company."

H-D Advanced Manufacturing

ACQUIRES INTELLIFUSE TECHNOLOGIES LLC

H-D Advanced Manufacturing recently announced that it acquired Intellifuse Technologies LLC, the sixth acquisition completed by H-D in the two years since it was formed in December of 2012.

Intellifuse joins Overton Chicago Gear Corporation, a manufacturer of large, heavy duty gears and gearboxes; Innovative Mechanical Solutions (iMECH), a manufacturer of custom bearings for the downhole mud motor industry; Leading Edge Heat Treating Services Ltd., a provider of heat treating solutions; Sungear, a manufacturer of high precision gears and assemblies for the aerospace industry; and Crown, a manufacturer of specialty components used in hydraulic actuation systems for commercial aircraft.

Located in Houston, TX, Intellifuse manufactures radial bearings, pads and other wear products. The addition of radial bearings to the H-D product portfolio is expected to comple-

ment the existing thrust bearings currently offered by iMECH. Both of these products are incorporated into the downhole drilling motors used by oil and gas companies and will operate out of a new facility in Houston.

Intellifuse's cofounders, Mike Speckert and Majid Delpassand, will remain with the business. Speckert will be the manager of U.S. operations for the combined iMECH and Intellifuse business, while Delpassand will serve as an advisor to the company.

"Intellifuse's coated radial bearings are proven in the market and represent an outstanding, complementary line extension for iMECH," said H-D CEO Chris DiSantis. "Intellifuse and iMECH are both experts in the manufacture of downhole mud motor components. We will now be able to provide our customers with another durable solution that enhances drilling efficiency, reduces cost per circulating hour, and allows for higher asset utilization."

"H-D shares our vision for growth and can provide the resources required to invest in facilities, equipment and product development," added Speckert. "We're excited to partner with H-D and look forward to expanding our relationships with both new and existing customers."

H-D was formed in December 2012 by a partnership among Hicks Equity Partners, The Riverside Company and Weinberg Capital Group to acquire and develop manufacturers of mission-critical, precision engineered components.

Sylvia Wetzel

SPEAKS AT ANNUAL REGIONAL MEETING

On Monday Dec. 8, Bison Gear & Engineering Chief Learning Officer Sylvia Wetzel spoke at the National Fluid Power Association's (NFPA) annual regional meeting at Harper College (Palatine, IL). The meeting, which focused around workforce development, was geared toward helping a company address the challenge of finding and maintaining a skilled manufacturing workforce.

In addition to Wetzel, the meeting featured Dr. Maria H. Coons, vice president of Workforce and Strategic Alliances, who also spoke on the need for developing a maintainable skilled workforce.

Wetzel has implemented the National Association of Manufacturers (NAM) stackable credentials at Bison for all production personnel, improving productivity within the organization by 32%. She was also a leader on the state-wide STEM manufacturing program study in Illinois, and continues to lead the Skilled Workforce Initiative to create and implement solutions that can remedy the shortage of qualified entry level workers.

Tooling U-SME

MAKES COMPETENCY FRAMEWORK AVAILABLE

Tooling U-SME, a company specializing in manufacturing training and development, recently launched a new industry resource — Tooling U-SME's Competency Framework.

The Competency Framework offers a newly designed online tool allowing companies to implement it across their organizations. The Competency Framework helps companies combat the increasing talent shortage and achieve stronger performance from their workforce while providing development pathways and career growth opportunities for their employees. It features a series of competency models in nine manufacturing functional areas and is made up of more than 60 defined job role competency models, outlining knowledge and skill objectives for job roles in production, technician, and lead technician/technologist and engineer levels.

"While employers invest in equipment, tooling and materials, they often neglect to make similar investments in their employees," said Jeannine Kunz, managing director of workforce and education for SME. "Tied to business goals, a well-designed training program, including the Competency Framework, becomes the foundation for performance management, talent acquisition, and leadership development, which helps drive a company's competitiveness."

Created by a committee of experts from industry and academia, Tooling U-SME's Competency Framework is designed to complement other competency models in the marketplace. It can be used "as is" or customized to individual work practices at a company's facility. For an improved training and development process, knowledge objectives within the framework are mapped directly to Tooling U-SME's extensive training resources.

Dr. Sebastian Idler

WINS CTI YOUNG DRIVE EXPERTS AWARD

On December 10, the 6th Annual CTI Young Drive Experts Award Ceremony was held at the 13th International CTI Symposium for Automotive Transmissions, HEV and EV Drives. The runner-up was Dr. Felix Töpler, while first place went to **Dr. Sebastian Idler**. The honorary speech was held by Prof. Dr. Ferit Küçükay of TU Braunschweig, who is a jury member and the chair of the Berlin Transmission Symposium.

Töpler won the award for his PhD thesis on "Predictive Energy Management for Plug-in Hybrid Vehicles." In its statement, the jury explained that "Dr. Töpler added a prediction function to existing operating strategies of plug-in hybrid vehicles. In a realistic driving cycle, the parallel plug-in hybrid vehicle assessed consumed 5 percent less energy than a hybrid vehicle without the prediction function." Dr. Töpler wrote his paper as a student at the RWTH Aachen. He currently works as a senior engineer in the field of drive systems at FKA: Forschungsgesellschaft Kraftfahrwesen mbh Aachen.

The title of Idler's winning PhD thesis was "Scuffing Load Capacity of Continuously Variable Transmissions."

In his honorary speech, Küçükay said "[Using Idler's applied procedure] it is possible to optimize the pressure strategy in relation to temperature, and hence to prevent scuffing reliably during operation."

Idler currently heads the E-Mobility Team at the Gear Research Centre (FZG) at Munich Technical University.

Koepfer America

SPONSORS 'ITALIAN GEAR TECH TOUR'

Koepfer America sponsored a group of North American gear manufacturers on a technology-focused "Italian Gear Tech Tour." The trip started Nov. 16 and ended Nov. 22, 2014, and covered the latest Italian gear products to be introduced to the North American market.

The group consisted of select representatives from the industry's leading gear manufacturers who received a personal look into these companies as well as tours of several gear manufacturers, such as Corradini Giacomo Gears and OMIG Ingranaggi.

The tour took place in the northern region of Italy where the country's heart of manufacturing is concentrated. A key stop was to CLC, one of Italy's fastest growing gear machine tool manufacturers.

"It was a pleasure to host such a great group of gear manufacturers," said Roberto Cervi, president of CLC. "We truly welcome the opportunity to share the latest technology being developed and implemented in our factory."

Of particular interest to the group were CLC's horizontal hobbing machines, which provide new options for the U.S. market. The tour highlighted these machines' flexible custom-

ization that allows for the hobbing of long shaft-type parts up to 3 meters in length. CLC's gear shaping machines also presented a high-quality gear cutting solution that the group found intriguing.

Another featured stop on the Italian Gear Tour was to Fubri, one of Europe's premier gear cutting tool manufacturers. The tour included a close-up look at the many operations involved in manufacturing a gear cutting tool, such as relief grinding, gash milling, and final inspection and certification. The tour group learned about Europe's new high-speed steel, MC90, which features a specialized, high-quality heat treatment process that provides a material competitive with carbide.

"I enjoyed the opportunity to participate in the tour," said Simone Guarna, head of sales and marketing for Fubri. "I think the group valued the demonstration of our factory's wide range of capabilities in manufacturing high-quality, medium- and coarse-pitch gear cutting tools."

Artur Pajak

NAMED VICE PRESIDENT OF OPERATIONS FOR EFD INDUCTION GROUP

EFD Induction Group, a maker of induction-based industrial heating solutions, recently announced the appointment of **Artur Pająk** as vice president of operations.

"I'm of course excited to be joining EFD Induction" said Pająk. "The company has an enviable customer base and a global presence. That, plus the fact that we have superior applications knowledge and equipment technology means we are well positioned to become even more successful."

A Polish national, Pająk holds a Master and Engineering Degree from Radom University of Technology, as well as an Executive MBA from Warsaw University of Technology Business School. Pająk joins EFD Induction from Kongsberg Automotive, where he served as director of business line interior.

"I'd like to welcome Artur Pająk aboard," said CEO Bjørn Eldar Petersen. "He brings significant experience from the global automotive industry to EFD Induction, and he has keen insight and leadership that will prove invaluable to us as we work to safely and reliably deliver induction heating solutions to the world's leading manufacturing companies."

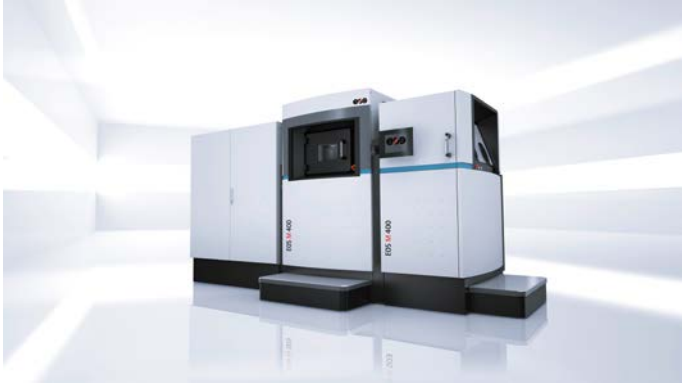
EOS and MTU

FORM JOINT STRATEGIC DEVELOPMENT OF THEIR TECHNOLOGIES

EOS, the global technology and quality leader for high-end additive manufacturing (AM) solutions, and MTU Aero Engines, Germany's leading engine manufacturer, are closely cooperating to develop quality assurance measures for metal engine components using additive manufacturing. The two companies have now signed a framework agreement for the joint strategic development of their technologies.

The first result of these joint endeavors is the optical tomography (OT) developed by MTU, a complement to the modular EOS monitoring portfolio. In addition to several sensors that monitor the general system status, the camera-based OT technology controls the exposure process and melting characteristics of the material at all times, to ensure optimum coating and exposure quality.

"MTU and EOS have been working intensively for several years, and this collaboration is now about to develop into an even closer, partner-based technological cooperation, centered on their quality assurance tool," said Dr. Adrian Keppler, head of sales and marketing (CMO) at EOS. "The OT solution enables us to perform an even more holistic quality control of the metal additive manufacturing process—layer by layer and part by part. A very large proportion of the quality control process that previously took place downstream can now be performed during the manufacturing process, with a considerable saving in quality assurance costs. This also allows us to satisfy a central customer requirement in the area of serial production."



Quality assurance is important in the field of serial production because it is vital both for ensuring repeatable high component quality and for continually reducing the quality control costs of components made using the technology, which ultimately serves to reduce unit costs. The system settings and process parameters are constantly monitored in the ongoing manufacturing process on EOS systems, to ensure that system and manufacturing process conditions are ideal for maximum component quality.