

Global Distributed Gear Production

IS IT CONSIDERED OFF-SHORING ANYMORE, OR SIMPLY A BASIC REQUIREMENT FOR SUCCESSFUL LONG-TERM GROWTH?

Two significant gear producers from different ends of the market in terms of volume have recently invested in additional manufacturing plants in Asia and India. Is this investment in distributed geographic production the risk it once was, or is it just a natural step towards servicing global customers in a global market?

Terry Grubb, managing director of U.K. precision gear and aerospace contract manufacturing company Microprecision, and **Karl-Peter Simon**, managing director of Bauer and senior vice president of geared motors for Altra, both express common motivation for similar expansion and investment decisions.

Microprecision is a niche market player with a serious portfolio of clients. It has invested in building a technology and manufacturing center in Bangalore, India in order to service local customers and



Terry Grubb

increase volume production, whilst German gearmotor manufacturer Bauer has invested in production in Eastern Europe and now China in order to provide service to global customers locally.

There is a theme here that follows the automotive model; after global car manufacturers and electronics giants had shown how large-scale distributed manufacturing can be made to work on a global scale



Karl-Peter Simon

— by using localized production facilities, there was a wave of initial investment in SME offshore manufacturing in the late 80s and 90s.

This move, essentially a cost cutting exercise, resulted in very bad press for many European, U.S. and even Japanese SME companies, as the drive to reduce costs resulted in loss of IP, quality issues and reduced investment in home markets. Many manufacturers pulled out of JVs and similar operations to re-shore their production and gain control over development and quality in the 2000s.

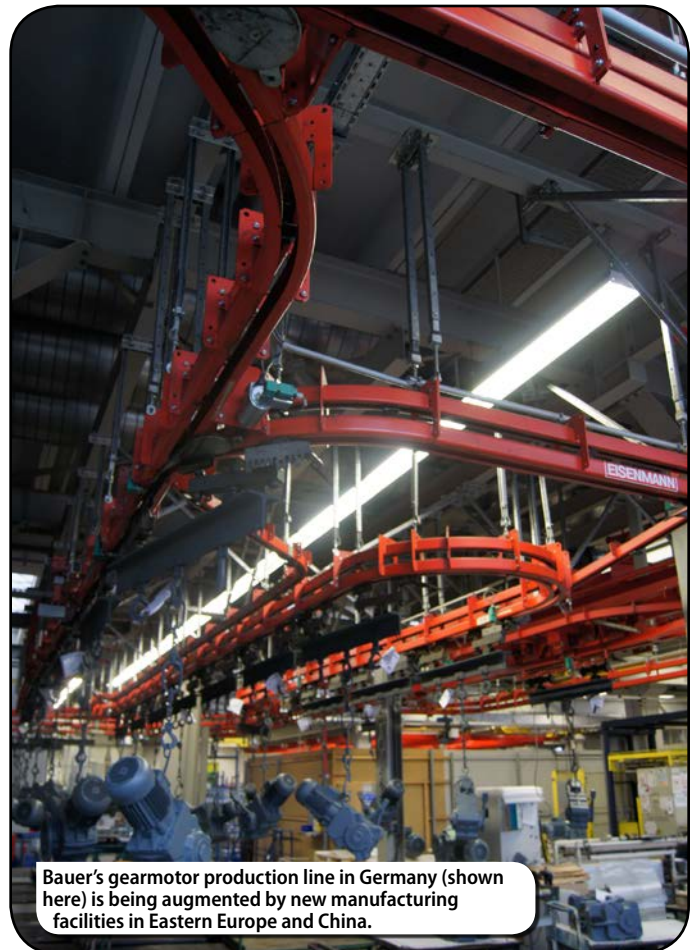
If you consider that the first wave, then the second wave is definitely not looking to establish low-cost manufacturing to re-export product into existing markets. The focus now is in supporting customers who are successfully manufacturing within fast developing economies and require the same products and subcontract/supplier support that they enjoy in their other global manufacturing bases.

Is this a safer place to be for SMEs now, allowing global expansion, and does it fit better into the deployment of a larger

business globally? Microprecision fits the high-technology SME profile to a tee, selling advanced, often niche low-volume products at a premium based on the application of design and production knowledge and experience.

Bauer, on the other hand, is part of the Altra Industrial Motion Group, headquartered in South Beloit, Wisconsin and is now the world's largest producer of industrial clutches, brakes, couplings and geared motor products. The sheer volume of its production capability in Germany and abroad makes it a substantial global player. The expressed intention from both businesses is, however, remarkably similar, and the hopes and aspirations, backed-up by direct experience, are also similar.

“Our production facility in India is different to our U.K. operation; it’s a clean sheet of paper build for a start, but it is driven by the global demands of our customers,” said Grubb. “There is a growing and thriving aerospace community in India, partly thanks to government funding and partly due to the high caliber of local engineering talent. We may export some of the products we make in India in larger volumes, such as precision gear pumps, and many of the aerospace components we make in short batches will continue to be manufactured at our HQ in the U.K., but for small-to-medium size volumes of product that need to be supplied locally,



Bauer's gearmotor production line in Germany (shown here) is being augmented by new manufacturing facilities in Eastern Europe and China.

the new India base is ideal. A common business language helps, but it is by no means essential to our decision to expand in India. We find that business is global now, especially for the larger aerospace, medical and automotive customers we have, so if we are to grow with our client base we needed to expand abroad."

A major public step in Bauer's current business expansion plan was taken when the company opened a new assembly plant in China. Contrary to current trends, the facility was established to provide local availability to customers already operating in China and develop local business, not, as other manufacturers had done, to seek a low-cost manufacturing base to import products back into Europe.



"Since building the world's first commercially available range of gear motors, Bauer has been recognized as a pioneer in the technology," Simon said. "Under Altra's commercial umbrella we now find ourselves in a position where we can look at the emerging markets, especially the BRIC countries, and grow our global presence. With this goal in mind, the opening of our new facility in China was a natural step. China is currently the fastest growing economy in the world, and with its recent announcement of a five-year plan that connects its growth to increased efficiency, our products now have an even more relevant position in this market.

"While other manufacturers still move to China in order to reduce the production costs on the products they sell to Europe, we have moved to China to support our existing business there and to create the foundations required

to develop new business for the local Chinese market. The plant assembles and stocks our key products, which reduces lead times on new motors and replacement parts significantly. This means we can offer the same level of Bauer quality and support in Asia that is enjoyed by our European customers at a competitive price, locally."

For some gear production companies then, both SMEs and larger manufacturers, multiple production sites around the world are now a reality, not to drive down global costs, but to support customers wherever they are in the world, reducing transport and logistics time and cost and therefore making gear production globally not 'cheap' but far more cost effective and efficient overall.

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Wittenstein

ANNOUNCES NORTH AMERICA CEO

The Wittenstein Group, a global provider of mechanical and electro-mechanical motion control systems, has named **Peter Riehle** as president & CEO for Wittenstein North America. In this role, Riehle will be responsible to extend Wittenstein's reach into highly specialized industrial markets such as packaging automation, semiconductor manufacturing, robotics, aerospace and simulation. He comes to Wittenstein with an extensive background in the precision technology and machine tool industries. Based in North America for over 16 years, he has held senior executive positions at the Schaeffler Group, DMG America, Weinig Inc., and Trumpf. This announcement comes as Wittenstein expands their U.S. based manufacturing facility, and during the launch of their new cyber motor business unit in North America.



Timken

APPOINTS GENERAL MANAGER OF WIND ENERGY

The Timken Company recently announced the appointment of **Bradley K. Baldwin** to general manager of wind energy. Baldwin joined Timken in 1995 as a sales engineer in Charlotte, N.C. He has held sales leadership positions involving automotive, industrial and distribution customers. Baldwin has served in management positions as well, most recently as general manager of process industries original equipment sales for Asia and wind aftermarket business development. A native of San Angelo, Texas, Baldwin earned a bachelor's degree in mechanical engineering from Texas A&M University in College Station, Texas. He is a member of the American Wind Energy Association.



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QA1

NAMES SCOLES PRESIDENT

QA1, an industry leader in performance shocks, rod ends and suspension components for motorsports, is excited to announce the promotion of **Melissa Scoles** to president. CEO and Founder Jim Jordan announced the news, stating "QA1 is fortunate to have someone with Melissa's broad skillsets to assume this position within the company."



Scoles has been associated with QA1 since she was a teenager, as Jordan is her father. She started at the company folding boxes and worked the company's trade shows during college. She then worked through every department at the company, taking a break to get outside experience and attain her MBA from Carlson School of Management. She studied in both Europe and Asia while earning her degrees. When she returned in January of 2011, she joined the QA1 team again as vice president of marketing, to be quickly promoted to executive vice president and now president.

In the past couple of years, Scoles has helped lead the company to several milestones. She oversaw the acquisition of CAP Auto Products and Edelbrock's Suspension Division, adding over 350 American-made suspension products to QA1's product offering. She has also been integral in organizing QA1's new Composite Component Group, which will be introducing a variety of carbon fiber filament wound products to the market for late 2013 and 2014. Currently, she is leading a project to expand QA1's manufacturing space to accommodate the company's growth over the past couple of years.

Hartford Technologies

APPOINTS SALES ENGINEER

Hartford Technologies announces the appointment of **Dave Kelley** as sales engineer for the Great Lakes and Midwest Region. Kelley has extensive experience with application engineering for bearing products, including precision balls, needle rollers, dowel pins, cages, and custom bearing assemblies. He will provide ongoing support for Hartford's expanding customer base from his Michigan office. Hartford Technologies is a leading global manufacturer of precision metal components for OEM applications, with TS/ISO certified manufacturing facilities in the United States and China.



Motion Industries

RELEASES LATEST MIHOW2 VIDEO

Motion Industries, a distributor of industrial maintenance, repair, and operation (MRO) replacement parts, has released a new video on their "MiHow2" channel (www.mihow2.com), the product/application solutions series. The instructive video series' goal is to share practical industrial applications that viewers can adapt in their own facilities.

A supplier of cable and hose carrier/management systems, Tsubaki KabelSchlepp performs the demonstration in the video titled, "How to Increase the Life of Your Cables and Hoses in a Dynamic Cable Carrier." The video can now be viewed online at www.mihow2.com.



"Maximizing the life of any part is important to all companies watching their bottom line," said Randy Breaux, Motion Industries' senior vice president of marketing, product management and strategic planning. "I think Tsubaki KabelSchlepp demonstrates this process well by showing how a properly sized carrier, coupled with the correct cable and hose choice and installation, can avert pre-mature failure."

Each MiHow2 video was filmed in a workshop setting, and features the Motion Industries host with a guest from one of the market-leading industrial manufacturers—demonstrating a product or application. Additional MiHow2 videos are scheduled to be posted to the new channel in coming weeks and throughout 2013.

Napoleon Engineering

ANNOUNCES CUSTOM BEARING CAPABILITIES

Napoleon Engineering Services (NES), an ISO9001:2008 and AS9100C certified custom bearing manufacturing, bearing inspection and bearing testing facility, has announced its complete custom bearing manufacturing capabilities for spacecraft, satellites, launch vehicles, rotorcraft, and other aerospace related requirements.

With a core competency in high-precision custom ball and roller bearings using superelastic Ni-Ti alloys; wear resistant, high life materials and coatings; and advanced design technologies, the company has cemented its position as a key resource for bearing manufacturers, distributors and related OEMs.



Specific to aerospace and space-related technologies, NES products and services support a diverse range of applications, including, but not limited to satellite arm actuation, antennas, fuel pumps, ram air turbines, and rocket engine valves. In addition, the company's bearing manufacturing is complemented by its unique capability to offer highly specialized programs into this market sector, including the reverse engineering of Typed Certified aircraft bearings for FAA Certification, required for bearing OEMs which were not integrated into an aircraft at the point of initial design, and who are seeking their own PMA.

AutomationDirect

LAUNCHES NEW MERIT BADGE WITH BOY SCOUTS

AutomationDirect.com has teamed up with the Boy Scouts of America to inform and inspire the nation's youth about programming. The 2013 National Boy Scout Jamboree was held in mid-July at the Summit Bechtel Reserve in the mountains of West Virginia, where AutomationDirect, Radio Shack, VEX and the Boy Scouts of America launched the brand new Programming Merit Badge.

The new merit badge is designed to introduce youth to various kinds of software programming. At the National Jamboree, 40,000 Scouts had the opportunity to learn about the Programming Merit Badge using tutorials to understand programming theory for embedded controllers, robotics, and



ladder logic using the CLICK PLC. Scouts then performed the different programming tasks in order to receive the new Merit Badge. Reports indicate over 800 Scouts lined up to earn the new badge. The Programming Merit Badge is available to all Scouts through the Scouting Merit Badge Program.

Joan Welty, marketing director for AutomationDirect.com says, "AutomationDirect is extremely excited to participate in getting this new Programming Merit Badge introduced to the Scouts. We believe that the future of our industry lies with the talented minds of our youth and we want to do everything possible to encourage them to explore the exciting world of factory automation. During this 10-day Jamboree, several thousand young people have learned just how intuitive programming can be with ladder logic and the CLICK PLC. This is a big win for the future of factory automation and the manufacturing industry, and we are proud to play a part."

Stober Drives

EXPANDS U.S. OPERATIONS

Stober Drives, Inc. has added a 50,000 square foot building to its Maysville, Ky. campus to maintain its reputation as providing the best people, processes, products, and performance in the drives industry. "We believe in unsurpassed customer service support, including fast delivery," said Peter Feil, general manager at Stober Drives. "We have a standard delivery of one day. The fast delivery is not the result of a stock of preassembled gearboxes. Every unit is built to order to match customer specifications."



Stober manufactures quiet, highly-efficient, durable gearboxes. Focusing on motion control and power transmission, Stober has expanded into the global market for applications including robotics, material handling, packaging, machine tool, medical equipment, food, beverage, semiconductor manufacturing, aerospace equipment, printing, and general automation application.

"This expansion is all a part of our emphasis on being the gold standard in the industry," said Feil. "The additional space has allowed assembly, customer support and shipping to grow, maintaining our focus on giving the customer

the best experience possible. All phone calls are answered within three rings or less, quotes are completed in one hour, and every unit is shipped filled with application specific lubricant."

Stober is especially sensitive to customers who are in a breakdown situation. Emergency orders have no expediting fee and are shipped in 24 hours or less.

"Downtime is huge because all operations stop until a company is able to get a new part," said Feil. "We are the company people can rely on to get them up and running again." Emergency support is available 24 hours a day, seven days a week for any location in the United States.

Igus

CONTINUES GROWTH TREND

Igus Inc. is continuing its growth trend. Despite difficult market conditions in 2012, Igus managed to increase turnover by five percent and finished the year on a record high. Igus is counting on "organic growth" this year, too. Within the context of a long-term investment program, significant capital will be directed at new product divisions, the expansion of existing product lines as well as global logistics and production. In 2012, Igus supplied products to more than 175,000 customers all over the world and was able to ship more than 4,200 shipments in average per day from its 13 global dis-



patch centers. The ReadyChain division – pre-harnessed Energy Chains and Igus continuous-flex Chainflex cables – grew at an astonishing high rate: around 341,000 pre-harnessed cable systems left world-wide production facilities last year. Igus is expecting additional growth from new product groups including semi-finished goods, ball bearings, spindle drives, electric actuators, and on-site assembly programs. Each product is now developed and marketed in separate business divisions with additional staff, space and production facilities. The number of employees increased last year to a total of 2,175, a seven percent increase. For customers, things remain simple. As before, they can contact sales engineers for Energy Chain Systems and for dry-running bearing technology. In addition, there is an expanded team of industry

specialists providing support to sales engineers in the fields of machine tools, packaging machines, construction machinery, cranes, the agricultural sector, material handling, medical technology, energy sector, automotive production and robotics.

Hoerbiger

MAKES CHANGES TO DRIVE TECHNOLOGY SEGMENT

On July 17, 2013, the board of directors of Hoerbiger Holding AG gave the green light for a generational change at the top executive level of the strategic business unit drive technology. At his own request, **Dr. Siegmur Schlagau**, member of the Hoerbiger Group executive board and head of the strategic business unit drive technology, will relinquish all his management responsibilities at the Hoerbiger Group in several steps during the coming months. He will be succeeded by **Thomas Englmann**, currently managing director of Hoerbiger Kompressortechnik GmbH, Schongau, and head of serial compressors business segment. He will be assuming responsibility for the strategic business unit drive technol-



ogy in several stages beginning in September. A successor has also already been found for Englmann from within the Group: Oliver Gratzel. He is currently head of the hydraulics and pneumatics segments in the automotive comfort systems business division.



Englmann, an industrial engineer, has been an expert in the automotive business for many years. Even before he started working for Hoerbiger, he had already held several executive functions for a supplier in the industry. He has been managing director at Hoerbiger

Kompressortechnik GmbH, Schongau, since 2006 and is responsible for various product categories that are developed worldwide, produced and delivered to global and local customers for many years. Over the past few years, he built up the important future markets of China and India for his Serial Compressors Business Segment.

"It's time to make room for the next generation!" says Schlagau. "It's important to me that I hand over the reins with sufficient time." He will stay with the company as a consultant after handing over his responsibilities.

Under the leadership of Schlagau the strategic business unit was strategically repositioned through wide-reaching changes over the past few years. The systematic focus on the synchronisation technology business segment for passenger car transmissions has proven its value. New, innovative products that will once again set standards in the industry

are ready for the market. The Hoerbiger CompactLINE synchronization was recently introduced. It uses a unique functional principle. It offers significant savings in weight and size, while still providing the greatest level of comfort when changing gears.

Englmann will assume responsibility for around 1,600 employees across six locations in Germany, China and Canada. "It is important to us to ensure that such a complex role can be handed over to the successor with as much care as possible," says Dr Martin Komischke, CEO and chairman of the Hoerbiger Holding AG executive board. "For this reason, the board of directors and executive board have reached an agreement with Schlagau and Englmann under which these responsibilities will be transferred in several stages."

This ensures a seamless transition in management for both the serial compressors business segment and at Hoerbiger Kompressortechnik GmbH. Gratzel, also an industrial engineer, will be taking over the reins there on September 1, 2013. Over the past few years, Gratzel has made a significant contribution with innovative, competitive product concepts and new strategies, to help lead this business division out of a difficult crisis.

"Thomas Englmann and Oliver Gratzel, the two executives who will be moving up into new, responsible positions, have shown what they are capable of over the past few years at the Hoerbiger Group," says CEO Dr. Martin Komischke. Hoerbiger targets managerial staff and employees for promotion with the goal of retaining good employees at all levels in the company, to develop them and offer suitable career prospects.

Schaeffler

DESTROYS 26 TONS OF COUNTERFEIT ROLLING BEARINGS

Rolling bearings of various types and sizes are conveyed by the gripper arm of an excavator into a scrap press with a loud crash. The bearings leave the press chopped and broken into pieces or so badly damaged that they are rendered unusable. Large-size bearings with an outside diameter of more than one meter, which are even too big for the scrap press, are destroyed with a cutting torch. All these bearings are counterfeit products marked with the INA and FAG brand, which were confiscated in raids. The objective of this operation is to make these bearings unusable.

After a spectacular operation in 2007, in which around 40 tons of counterfeit bearings were destroyed at the Schaeffler company site in Schweinfurt, and numerous other operations to destroy counterfeit goods worldwide, around 26 tons of counterfeit bearings with a value of more than one million euros were destroyed this time at the premises of INTERSEROH Franken Rohstoff GmbH in Schweinfurt. A large proportion of the counterfeit products originate from raids at bearing distributors in Europe, for example, in Italy and Great Britain. But some of the counterfeit bearings are also from Germany. "Brand and product piracy is not a phenomenon that is limited to Asia or South East Europe. It also takes place right on our doorstep," says Ingrid Bichelmeir-Böhn, leader of the Global Brand Protection Team at Schaeffler.

"The German and European markets are no longer only flooded with counterfeit luxury or consumer goods, there is also an increase in counterfeit industrial products that are relevant to safety such as rolling bearings".

The spindle bearings, spherical roller bearings, ball bearings and needle roller bearings scrapped during this operation are only part of the confiscated counterfeit products.

The majority were disposed of locally under the supervision of the relevant national authorities.

The counterfeiting of rolling bearings and the distribution of these products are consistently pursued by Schaeffler worldwide and may lead to prosecution in some cases. Not only is there the threat of claims under civil law for cease and desist orders, damages and the submission of counterfeit products for destruction, but also the threat of prosecution under criminal law in conjunction with a fine and/or imprisonment if necessary. The economic losses caused by counterfeit products are very difficult to estimate. In addition to lost sales proceeds and the damage to the company's image due to low-quality goods, high costs are incurred for the investigation, confiscation and correct disposal of bearings.

Not only are the companies that manufacture brand name products and conduct complex research, development and quality assurance damaged, but also the companies who install counterfeit parts and their customers. A current case from Switzerland proves once again that significant damage can be caused by the failure of a rolling bearing when it is a safety-relevant part in machines and facilities. Due to a customer complaint by a Swiss company, it became apparent that a counterfeit cylindrical roller bearing was fitted during the repair of a machine. Hot running occurred after only six months, despite regular maintenance. This was noticed in good time by the customer, however, it still resulted in repair costs of around 17,000 euros, which exceeded the value of the bearing many times.

