

# 108,000 Hours and Counting

## DMG/MORI SEIKI UNIVERSITY CHART COURSE FOR MANUFACTURING EDUCATION AND TRAINING

They sit attentively in packed classrooms, hang on every PowerPoint slide, and clamor for more. It's not behavior typical of on-the-job trainees — but it's an exciting reality for DMG/Mori Seiki University (DMSU) instructors who have their sights set on upper-echelon workforce development. While originally intended for customer-oriented machine training, the DMSU curriculum has grown into an engine for internal transition. "When DMG and Mori Seiki joined forces in the United States in April 2010, people both inside and outside of the organization were skeptical that it would be successful," says Rod Jones, chief learning officer at DMSU. "DMSU has played a key role in bringing about organizational change in this regard."

During the 2010 fiscal year, DMSU experienced staggering growth of 140 percent. Since the DMG/Mori Seiki partnership announcement, classroom instructors and online courses have delivered more than 108,000 hours of training, 72 percent of which were employee- and distributor-focused.

"Before, we had to beg our people to attend these classes," Jones says. "Now, it's a total reversal; we can barely keep up with the requests to attend because the distributors and engineers see the value."



**DMG/Mori Seiki understands the value of educating its own workforce as well as its customer base.**

This metamorphosis hasn't come at the expense of customers — quite the contrary. As Jones explains, an organization can't put 78,000 hours and significant monetary investment toward internal training without effecting positive change.

"It's the iceberg effect: You only see the tip of DMSU benefits: i.e., direct customer training," he says. "The indirect benefit is the fact that the DMG/Mori Seiki USA distributors and the engineers who serve them are now a much stronger, more confident, more powerful force than ever before, thanks to the training they have received."

Getting employees and distributors up to speed on hundreds of new machine models and technologies was no simple feat.



**Originally intended for customer training, DMSU has also developed into a successful internal training program (all photos courtesy of DMG/Mori Seiki USA).**

Jones and his team went above and beyond — investing heavily to bring teams of instructors from Germany to teach nearly three dozen new, unique DMG-specific classes.

Internal parties also take machine-specific courses that cover programming, operation and maintenance through DMSU's Education on Demand, the University's online platform.

"During the time that we were focusing on internal education, we never denied training to a single customer; in fact, that side of the University continued to expand as well," Jones says. "But we really turned DMSU upside down to help support the business goals and the success of the DMG/Mori Seiki USA collaboration."

Jones doesn't see any letup in the intensity of internal training. His team is facilitating an apprenticeship program that sends students to Germany for as long as two years to learn factory processes, take classes led by DMG engineers and bring their knowledge back to the United States. A similar scenario is occurring within the new Mori Seiki manufacturing plant in Davis, California. There, recruiters are working directly with Japanese factory personnel to give new hires the most in-depth education possible. "We have to home-grow our people — they just aren't out there," Jones says.

Jones acknowledges the huge difference in the way DMG/Mori Seiki USA approaches internal training, as compared to other machine tool makers. "I know from my previous work as a consultant that most people in the manufacturing industry see training as a necessary evil," he says. "One of the reasons I closed my business and came to DMG/Mori Seiki USA is because the organization understands the value of educating its people."

Anyone can give a lecture in front of a classroom — but it takes experience, critical thinking and some serious elbow grease to develop a worthwhile course from scratch. And that's just what DMG/Mori Seiki USA instructors do every day.

When new machines or technologies arise, engineers and DMSU staff travel to DMG and Mori Seiki factories around the globe to learn from local employees, perform programming



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**Rod Jones, chief learning officer at DMSU, is proud of the work the company has achieved in manufacturing training and development.**

operations and service procedures, and document the process. From there, instructors painstakingly write, design and develop every last detail of online and classroom courses—from virtual machining demos to proficiency-based test questions.

The task of developing machine-installation protocol is perhaps even more arduous—but the resulting training courses solve problems that have dogged an entire industry for decades.

"Before coming to DMG/Mori Seiki USA, I consulted more than 100 manufacturing clients—and instituting authorized installation processes was a challenge for them all," Jones says. "In this industry, it's standard protocol to throw a brand new machine out in the field with service guys who have never had a day of training on it. It's always been a struggle for the machine builder to control the process."

One such struggle was the installation of the large and complex NT6600 DCG. To alleviate the costs, pain and troubleshooting associated with inconsistent installation of this and other complex machines, DMSU employees track and document approved installations and develop repeatable, step-by-step processes and certification courses for U.S. service engineers.

"Before, we were bringing in full teams from Japan to ensure proper protocol, which could take weeks and weeks," Jones says. "Now, the customer gets a factory-authorized installation from their local service technician."

Since beginning this initiative, customer complaints relating to NT and other complex machine installations have virtually vanished. It's not the only area in which a committed focus to internal training has gone a long way to boost customer perceptions and satisfaction.

"I just saw the results of our annual customer survey, and the perception of our training and service has visibly improved," says Jones. "I'd like to think that, whether customers realize it or not, our team had something to do with it."

For more information, visit [www.dmgmsuondemand.com](http://www.dmgmsuondemand.com).

# Morrisson

## JOINS SOUTH BEND GEAR

Paul Morrison has joined South Bend Gear, LLC as operations manager of the recently built manufacturing plant that produces gears for heavy-duty truck engines. Morrison will be responsible for overseeing production at the new facility on the Schafer Gear campus. South Bend Gear is a joint venture of Schafer Gear Works and Somaschini S.p.A. of Italy. Prior to joining South Bend Gear, Morrison was vice president of manufacturing at Flexco Products Group in Elkhart, Indiana. He previously served as plant manager of a steel storage systems facility and has also held quality control and manufacturing management positions. Morrison has a bachelor of arts in business administration from Western Michigan University and Six Sigma Black Belt and Lean Manufacturing Certification. "We are very pleased to have Paul as operations manager of the joint venture facility," said Bipin Doshi, president of Schafer Gear. "Paul's extensive experience in quality assurance and management of complex manufacturing facilities is very valuable and will allow us to smoothly double the production capacity of South Bend Gear by the end of this year."



# Gleason

## OPENS NEW CHINA FACILITY

Gleason Corporation recently announced the grand opening and dedication of a new world-class manufacturing facility in Suzhou Industrial Park, Jiangsu Province, China. The new facility is home to the company's Gleason Gear Technology (Suzhou), Co., Ltd. (GGTS) operation, which was established in 2007. The new factory brings together under one roof the company's machine and cutting tool production, which were formerly located in separate facilities in the Suzhou Industrial Park. The new factory is a LEEDS-qualified 14,500-



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square-meter (156,000 sq. ft.) facility, climate-controlled for high-precision manufacturing. GGTS produces Gleason's line of Genesis gear hobbing machines for the China market, and also produces a large line of gear cutting tools including hobs, shaper cutters and bevel gear cutting tools. Gleason expects additional products and services will be added over time as market needs and opportunities present themselves. "We are proud and excited to open this state-of-the-art facility expanding our already growing presence in China," said John J. Perrotti, president and CEO of Gleason Corporation. "This investment in our new facility along with the continued expansion of our technical staff in China is a strong statement about our long-term commitment to this important market."

## Cleveland Gear

### CELEBRATES 100 YEARS

Cleveland Gear Co., a pioneering force behind worm gear manufacturing in the United States, is celebrating 100 years of continuous manufacturing of gearing technologies. "Few companies get to experience a 'Centennial Celebration' with the same name and in the same location, as the average life expectancy of the typical large American enterprise is less than 50 years," says Dana Lynch, president, Cleveland Gear. "When you think, in the last decade alone, of the long list of big corporate failures, it makes you proud that Cleveland Gear is enjoying record sales and prosperity, celebrating its 100th year of operation."

Cleveland Gear was founded in 1912 as Cleveland Worm & Gear by F.M. Gregg, C.J. Fitzpatrick and David Fitzpatrick, the latter bringing his knowledge of worm gear design and production technology to the United States from his native England. In the first year of operation Cleveland Worm & Gear produced 2,000 sets of gears with 20 employees. In just six years, the company reportedly employed 300 individuals and produced 80,000 worm gear sets for automotive applications. It also introduced the first standard worm gear speed reducers, earning recognition by the AGMA, which established their design as the industry standard. In 1920, David Fitzpatrick received U.S. patents for material design concepts and production tooling and machinery that remain relevant today.

The company continues to be the innovator of many worm gearing and enclosed drive designs. Throughout its history, these innovations have included the first worm gear speed reducer designed specifically to handle high over-hung loads; the first box-type housing, which increased heat dissipation during operation; the CU unit, designed specifically for driving induced-draft cooling tower fans; the Speedaire line of fan-cooled worm gear speed reducers that set a new standard of worm gear performance by increasing the unit's thermal horsepower capacity while reducing its overall size; the Cleveland M series Modular speed reducers, expanding Cleveland's product range down to 1.33" CD; and the introduction of Cleveland Custom Parallel Shaft Reducers.

Cleveland has been recognized for its involvement with the U.S. Military. In 1943, 1944 and 1945, Cleveland Worm & Gear was awarded the Army-Navy "E" Award for distinguished service to the World War II war effort for supplying worm gearing

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and worm gear drives for ships, airplanes and other war-related vehicles and machinery. In 2006, Cleveland Gear employees were called upon to supply a custom gear for the U.S. Navy's USS Essex (LHD 2), based in Yokosuka, Japan. They machined and shipped the gear to Japan in less than 72 hours.

Cleveland Gear continued manufacturing its product offerings at the E. 80<sup>th</sup> Street plant through two acquisitions. In 1959, Cleveland Worm & Gear was acquired by Eaton Axle & Spring (later called Eaton Yale & Towne and, today, Eaton Corp.). The company was then known as the Industrial Drives Division of Eaton Axle & Spring until its acquisition in 1980 by Vesper Corporation of Brecksville, Ohio, now called The Industrial Manufacturing Company.

Cleveland Gear Co., celebrating 100 years of operation, manufactures worm gearing, speed reducers, standard and custom drives and speed variators for a variety of industries, including construction equipment, steel production and processing, and oil and gas exploration and production. Boasting an inventory of more than 10,000 hobs and master worms, the company is capable of accurately duplicating virtually every worm and gear manufactured by Cleveland Gear over the past 100 years. For more information, visit [www.clevelandgear.com](http://www.clevelandgear.com).

## Mike Chester

### WINS 2012 WINZELER AWARD

Winzeler Gear, in coordination with the Tooling and Manufacturing Association (TMA), has named IMS Companies vice chairman Mike Chester winner of the 2012 Winzeler Award. Winzeler Gear president John Winzeler presented the honor to Chester during TMA's 86th Annual Meeting. Created in 1971, the annual award recognizes individuals for their outstanding service to the tool and die industry. For the past 20 years, it has been sponsored by Winzeler Gear. Previous winners include Fred Buhrcke, the founder of Buhrcke Industries (now known as IMS Buhrcke-Olson), who hired Chester as a die maker in 1986 and served as his mentor. "To be on the same



John Winzeler (left) presented Mike Chester (right) with the 2012 Winzeler Award during TMA's Annual Meeting.

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roster as Mr. Buhrcke and other industry leaders is an honor that I'll treasure forever," said Chester.

"Mike's achievements over his 35-year career, combined with his support of TMA, were key reasons for his selection," said Winzeler during the award presentation. Many of these achievements were made by Chester as he rose through the ranks at Buhrcke, where he initiated the company's first strategic plan and helped champion QS 9000 and TS 16949 certifications. He and a partner later purchased the company in 2001. As the company's leader, Chester implemented restructuring measures and strategic growth initiatives that led to Buhrcke's 2004 acquisition by IMS Companies. While managing Buhrcke, Chester remained an avid supporter of TMA, serving on its board and leading the organization as its chairman in 2004-2005. He currently serves on TMA's Manufacturing Education and Careers Committee.

## Cameron

### SELECTS BRAD FOOTE TO SUPPLY GEARING

Cameron has selected Brad Foote Gear Works, Inc., a subsidiary of Broadwind Energy, to supply enclosed drives and open gearing for use on off-shore oil platforms. Shipments to Cameron are expected to begin in fourth-quarter 2012 and continue into 2013. "Brad Foote's impressive commitment to continuous improvement and deep expertise in precision gearing fits closely with Cameron's commitment to product excellence. We look forward to working with the Brad Foote team," said Bill Haggard, supply chain manager for Cameron's drilling systems division. Since 1924, Brad Foote Gearing has produced tight-tolerance gearing for markets as diverse as oil and natural gas, mining, steel, transportation, power generation and wind. The company is a founding member of the American Gear Manufacturers Association and was honored for becoming the first U.S.-based gear manufacturer to be ISO 9001-certified. "We are delighted to help meet Cameron's need for enclosed drive and open gearing," said Daniel E. Schueller, president of Brad Foote Gear Works, Inc. "This win is another success in our ongoing diversification into a variety of energy and infrastructure markets." For more information, visit [www.bwen.com](http://www.bwen.com).

## Bagley

### JOINS MAZAK CORPORATION

To meet the demands of its rapidly expanding market in the American Northeast, Mazak Corporation has hired a new account manager, Andrew Bagley, a seasoned mechanical engineer and machine tool expert. In his new position, Bagley will manage and direct the sales of Mazak's full suite of machine tools, from productivity-improving multi-tasking solutions to automated manufacturing systems for Done-in-One unattended part production, in Maine, New Hampshire and Vermont. In support of the com-



pany's ongoing commitment to customer education and support, Bagley will also provide after-sale technical support and provide educational presentations about the technical features of Mazak machines. Bagley has extensive machine tool experience, having previously worked as a service engineer and metrologist, and has been recognized for the development of lean manufacturing processes and educational and training efforts for several leading manufacturers. "Andrew has excellent experience in the industry and has proven to be a true team leader when it comes to customer service, training and support," said Steve Wilkins, regional manager of the Northeast region for Mazak. "We're excited to have him as a member of our team and another resource for our valued customers." Bagley attended the University of New Haven where he studied mechanical engineering and has advanced in the field, from a machine technician and designer to service engineer responsible for company-wide training and installation, repairs, customer support and part programming for ultra-precision equipment.

## American Wera

### RENAMED GERMAN MACHINE TOOLS OF AMERICA

American Wera is now officially renamed German Machine Tools Of America (GMTA) and continues to represent various top-quality German metalworking machine builders, including Profilor, Pittler, Praewema, WMZ and MAE. These machines are sold for gear and spline production, vertical turning, flexible machining solutions (blank to finish part solutions), as well as bar, pipe and tube straightening plus wheelset pressing. The company's target markets include automotive, off-highway, OCTG, rail, wind energy and other heavy equipment



manufacturing. This announcement was made jointly by GMTA President Walter Friedrich and Vice President of Sales Scott Knoy. "The reason for the name change is simply that the parent company wished to use a name that is more representative of all the lines we handle in North America," said Knoy. Originally formed as the North American subsidiary for Wera in Germany, GMTA today provides application engineering, sales and service for a broad range of machine tools and metal fabricating equipment. GMTA has representatives throughout the U.S., Canada and Mexico. Other key company individuals include Claudia Hambleton, treasurer; Doug VanDeven, service/parts manager and Shawn Wilkin, senior service engineer. Joseph Kemple remains the dedicated product manager for the MAE line of straightening and wheelset presses.

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