

# Is Your Company Preparing for the Future?

The vast majority of American manufacturers are experiencing a serious shortage of qualified employees, which in turn is causing a significant impact to business and the ability of the country as a whole to compete in the global economy. This is a key finding of the *2005 Skills Gap Report of the American Manufacturing Workforce*. Manufacturers surveyed believe that having a high-performance workforce is the most important driver of future business success. How will your company deal with today's talent shortage and the resulting business impacts? What is your company doing to attract, retain, and develop a high-performance workforce? How are you preparing for the future?

Let's focus for a minute on workforce issues concerning the demographics of current workers and the need for future leaders in the association and in your companies. While the situation is already posing significant challenges, the basic laws of supply and demand as they operate in the labor market suggest an even more difficult future. On the demand side, employers want more highly skilled employees that are exceptionally engaged and innovative. But basic demographic, social, and educational trends indicate a gloomy supply outlook:

- The exodus of baby boomers from the workforce with substantial accumulated skills will reduce the available talent pool;
- Changing attitudes about careers and job satisfaction among generation Y;
- Changing job requirements, necessitating some level of technical skill in almost all jobs and making unskilled jobs a thing of the past;
- Significant dissatisfaction among manufacturers with the quality of K-12 education and the lack of career counseling; and
- Declining percentage of students in U.S. universities studying science and engineering.

To address some of these issues, AGMA has created several basic and advanced programs for newer workers and experienced workers.

For beginning or new workers to the gear industry, several educational programs are now offered through the association:

- The gear school at Daley College in Chicago, Ill.,
- Regional schools and the in-plant courses taught

by the Gear Consulting Group, and

- AGMA's online courses.

All of these courses are basic level gear manufacturing courses that were developed in response to needs expressed by AGMA members over the last 15 years.

Unfortunately, in my first few months as AGMA's chairman and over the several years I spent on the board, I have observed that while members talk about the need for experienced and educated workers, when it comes time to actually use these resources, companies do not use much of what has been developed for them.

## High Quality, Low Attendance

The reason for this is both subtle and complicated. We all agree that workers need to know more about the processes used to manufacture gears and related products. They need familiarity with industry terminology and best practices. However, we also know that with demand at the level it is today, employers hesitate to allow workers to leave the plant for a few days as needed to attend the gear school in Chicago or to dedicate a day or two necessary for the in-plant or regional schools. In April, I paid a visit to the Daley College Gear Training School, and I was very impressed. The week-long course includes classroom sessions on the theory of gearing and a hands-on workshop where students fabricate several gears. Such a great training vehicle, and yet only 10 students were enrolled.

The association has also developed three new online courses that teach basic gear processes, which were funded by the AGMA Foundation. By working online, individuals can learn three critical areas:

- Fundamentals of Gearing, for nomenclature and terminology;
- Inspection of Parallel Gearing, for basic inspection theory and practice; and
- Introduction to Hobbing, which will be available online by September 30.



AGMA Chairman Stan Blenke

Sadly, companies are very hesitant to allow employees to use these online courses during work hours, and not too surprisingly, employees are hesitant to use their time at home to study these courses.

AGMA's Education Council has developed and perfected these courses, and they are offered to the industry at very affordable prices. They offer very high quality education based on feedback from companies who have completed the courses. I know of two gear companies that require every employee to take the Fundamentals of Gearing course. It is apparent to me that this should be the first step in preparing individuals for a high performance workforce.

Interestingly, of the approximately 1,600 individuals who have registered to use the online courses, about 40 percent are from outside the United States. The shocking thing about these courses is that fewer than 50 employees in the industry have actually completed the certification exam for the Fundamentals of Gearing course, and fewer than 10 have completed the course for Inspection.

## Advanced Programs Attract Big Crowds

At the other end of the spectrum, AGMA has added to its advanced education programs over the past several years. AGMA began a number of years ago with the Gear Failure course taught by Bob Errichello in Big Sky, Mont. AGMA is especially pleased to work with experts such as Bob. This course is offered twice a year and always sells out, gets rave reviews, and has a waiting list.

In conjunction with another industry consultant, Ray Drago, last year we developed an advanced design course that Ray teaches. The course has been presented twice, has been sold out both times, and today has a lengthy waiting list for the course to be taught this fall.

We are developing a course now that Ray is working on titled Advanced Gearbox Failure. This course will go beyond the failures of a single gear and look at the contents, including shafts, bearings, seals, lubrication, and so forth. We announced this course and already have a waiting list. We expect it to be just as successful as the gear failure course and the advanced design course.

In conclusion, why is our industry refusing to prepare the entry-level workers that we all need and know we will need more of in the future, while we are eagerly allowing individuals to go to far more expensive, far more intense courses in the areas of failure analysis and design?

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