A new twist to filling the manufacturing engineering talent pool

Manufacturing Group | December 30, 2014

Editor's choice: Fives Cincinnati is producing the next generation of manufacturing technology workforce with a modern approach to a time-tested apprenticeship program.

The average manufacturing worker’s age was 50, and half of the workforce...
A new twist to filling the manufacturing engineer - AMD – Aerospace Manufacturing and Design

was 10 to 15 years away from retirement, the U.S. Bureau of Labor Statistics reported in 2012. How will we support high-tech manufacturing as the baby boomers leave the workforce?

Most manufacturers in the United States are feeling the impact of the talent shortage, so this is a question many of us in human resources face. The method that is working well for Fives Machining Systems Inc. is a new twist on a tried-and-true approach to passing experience and knowledge to the next generation – the apprenticeship. Apprenticeships have been part of our company since its beginnings as Cincinnati Milacron in the late 1800s, and the most recent iteration of the program was established in 2007, when the company was still MAG.

The current program supports effective succession planning to replace exiting skill sets, while at the same time raising the bar by challenging apprentice candidates to earn a higher education degree, while they learn on the job.

Through a partnership with Gateway Community and Technical College in Florence, Ky., our apprentices complete a rigorous academic program and “earn as they learn” through an intense 8,000-hour, on-the-job-training rotation. What is unique about this program is that we participated in the development of the curriculum, including more lab hours than programs typically offered by four-year schools. Now in its seventh year, the program has graduated six apprentices, with eight others currently enrolled. The results are far beyond our expectations both in terms of numbers and the quality of the graduates. A common trait among our apprentices is that they are driven to succeed, and this program provides them an opportunity to back up their ambition with technical skills and work ethic, bringing vitality to the workplace that is often contagious to all employees.

Did you know?
Fives has more than 7,500 employees in 30+ countries.

Fives machine tools brands:
- Cincinnati
- Giddings & Lewis
- Forest
- Liné
- Liné Machines


Today’s high-tech manufacturing requires a strong skill set underpinned by a solid grasp of mathematics, so we work with high school guidance counselors to identify potential apprentice candidates, as well as promote the program to current college students and displaced workers. We use extensive outreach pathways to secure the best and brightest candidates available, including job fairs and recruitment of military personnel whose enlistments are ending. We have found that many veterans received technical training while in the service and they typically have desirable traits such as dependability, accountability, and maturity.

Five’s recent group of apprentices was selected from a pool of nearly 60 applicants, and the program is designed to accommodate a maximum of 10 apprentices at any given time. The resume review process involves assessing academic performance, personal skills, and the ability to effectively work in a team environment.

Along with earning an associate degree as either an electrical technician or in manufacturing engineering
technology, apprentices receive certifications as they reach milestones within the program including the Exploratory Machining Certificate, the Integrated Manufacturing Technologies Certificate, and the Fundamentals of Mechatronics Certificate. Apprentices are also eligible for membership in the National Technical Honor Society based on performance. Upon graduation the apprentice/employee transitions to a role within our organization with comprehensive knowledge and experience in high-tech manufacturing without the burden of student loans. Of our six graduated apprentices, five are continuing their education by earning bachelor’s degrees through the company’s tuition assistance benefit program.

Fives Cincinnati is committed to investing in the development of service, products, and manufacturing solutions for our global customer base. Our investment in the program is approximately $200,000 per candidate. The program not only provides a means to promote manufacturing as a career choice for highly motivated individuals, it ensures that some of the best and brightest young manufacturing minds in the U.S. are working to bring the latest machine tool and manufacturing technologies in the name of Fives.

Fives
www.fivesgroup.com

About the author: Bill Weier is human resource manager at Fives Cincinnati.

22

Related

GibbsCAM CNC Programming Automation at SolidWorks World 2015
Renishaw, Wenzel offering open house
Helping employers seeking mfg. candidates
Okuma hosts 'Make the Leap' tech showcase
Mazak Northeast to host MTConnect lunch and learn

You May Also Like

Okuma opens Aerospace Center of Excellence
Stratasys introduces new 3D printing curriculum
Pratt & Whitney Canada to invest more than $1 billion
Pratt & Whitney Canada to invest more than $1 billion
Aerospace materials — past, present, and future