

# Investing in our future

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The metalworking industry has become high-tech and forward-moving, with sophisticated machinery and equipment loaded with advanced electronic controls, sensors, microprocessor systems and monitoring instruments. But the newer, high-tech equipment isn't just reserved to a single segment of the metalworking world.

Metal foundry, CNC machining, laser and plasma cutters, solvent cleaning systems, coating applications, robotic handling machinery and welding systems are all continuing to evolve through new budding technology. To stay competitive, fabricators are adopting new technology, including automation to then empower the

incoming workforce to run and maintain this complex, precision equipment.

In an effort to stay ahead of the curve with the most advanced equipment available, equipment investments are a must. They will inevitably spur the hiring of skilled technicians, machinists, tool and die makers, CAD-CAM drafters, quality inspectors and industrial machine repair technicians from two-year community colleges and state technical schools.

These investments will help to make the American industry the most competitive in the global marketplace.

## Reach high

While much of the public's focus is on four-year college degrees from big name universities, the greatest areas for job growth, especially in high-paying careers, comes from two-year programs – especially in advanced manufacturing technologies.

Although the two-year associate's degree isn't making the traditional four-year bachelor's degree obsolete, high school students, teachers and especially parents need to be educated about the numerous career opportunities in the metals industry.

To spread the word, partnerships within the metals fabricating industry have sprung up with organizations like [SkillsUSA](#), the [Association for Career and Technical Education](#) and [the American Technical Education Association](#). By working with local school districts and PTA groups, metals companies can help provide an inside look at what's really happening within the industry to garner continued growth and interest.

## Ask the experts

When technicians and other technically skilled workers are allowed to run a shop, productivity follows. Thanks to their specialized training, they have the technical expertise that, often times, exceeds that of the engineers. The people who make things happen on the factory floor aren't just the scientists, engineers and managers; they are the technicians, machinists and CAD-CAM specialists.

While machinists and industrial machine repair specialists may traditionally be thought of as being blue collar, they should be recognized as white collar in terms of their advanced technical training and knowledge.

This advanced knowledge includes the use of CNC programming, digital and analog electronics, programmable logic controllers, motor control electrical circuits, fluid power, geometric dimensioning and tolerancing, and CAD/CAM software, such as Pro/Engineer and SolidWorks.

Community and technical college graduates who have completed extensive applied industrial technology programs must be acknowledged for their level of advanced technical education and expertise and their contributions to their companies. Technicians or machinists can come up with the next big breakthrough for any company – with the right recognition, motivation and direction in place.

Creativity and a high level of technical expertise must be utilized, but, above all, career advancement ladders and especially pay scales must closely parallel those of the engineers and other four-year degreed professionals. The key to the future success of our industry, therefore, is in investments – in the most advanced high-tech equipment as well as in recruiting and advancing the future technical workforce. ■