



DEMEP and Advanced Materials Technology Partner for Growth

*Silica Operators Mark Parrish
(foreground) and Damion Collier
(background) monitor the silica
bonding process.*

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By Allison Hayes

Fifteen years ago, scientists Joe DeStefano and Tim Langlois took a chance and combined their knowledge and years of experience to form a new company using 2,000 square feet of laboratory space in Wilmington.

Since then, Advanced Materials Technology (AMT) has grown to more than 40 employees in a 14,000-square-foot facility and serves the analytical industry as a leader in research and design of high-quality testing materials for scientists around the world.

How did they do it? With hard work, cutting edge research, a strong focus on customer service, and some help from the Delaware Manufacturing Extension Partnership (DEMEP).

"DEMEP provided valuable training that we, as a small company, would otherwise not have been able to find or afford," said Jason Lawhorn, AMT's research manager.

In 2012, AMT wanted to introduce its products to a wider customer base. To advance the business, the company needed to enhance its production capabilities with formal training in manufacturing processes and optimization. Their search for a training resource led them to DEMEP, a federally and state-funded non-profit organization committed to helping Delaware's manufacturers improve their global competitiveness.

DEMEP is the official representative of the MEP National Network in Delaware. The MEP National Network™ is a unique public-private partnership that delivers comprehensive, proven solutions to U.S. manufacturers, fueling growth and advancing U.S. manufacturing.

DEMEP operates as a recipient through Delaware Technical Community College in partnership with the United States Department of Commerce, National Institute of Standards and Technology, Delaware Division of Small Business, and the Delaware State and local Chambers of Commerce. Through these partnerships, DEMEP draws its resources from local and national universities, community colleges, research

institutions, private consultants, and a network of 51 MEP Centers located in all 50 states and Puerto Rico. With these unique relationships, DEMEP can provide its clients confidential access to their industries best practices, processes and business improvement methodologies.

"One of the things that really makes DEMEP stand out is the personal relationship we develop with our clients," said DEMEP Specialist Kelly Mckeown. "We become a business advisor who can grow with a company as their needs evolve."

AMT's internationally recognized products are sold under the brand name of HALO®. The HALO® Fused-Core® columns are the main consumable component when using high pressure liquid chromatography (HPLC) testing instruments. These instruments are commonly used in laboratories to analyze a wide variety of liquid and solid mixtures in the pharmaceutical/biopharmaceutical, food and beverage, environmental, and industrial industries, as well as in the clinical, toxicological, and academic sectors.



*AMT Quality Assurance Technician
Christiane Funk prepares to analyze a column
with the quality control sample.*

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*~ Kelly Mckeown
DEMEP Specialist*



AMT R&D Technician Bob Moran installs a HALO® HPLC column.

AMT has completed a dozen training programs, including lean manufacturing implementation, project management, data analysis, leadership training, and Learn Six Sigma Green Belt training. This training was valuable for team members so they could speak the same language within the group and work cohesively to move the company forward.

The Learn Six Sigma training requires participants to complete projects during the course to practice implementing the Learn Six Sigma tools. The green belt projects identified the need for scrap reduction and improving the production time for the column loading process, a key step in the production of HALO® Fused-Core® columns. DEMEP's Learn Six Sigma Green Belt training provided the tools for the company to systematically improve processes throughout



Left to right: AMT HR & EHS Manager Dan Casey, DEMEP Specialist Kelly Mckeown, AMT President Tim Langlois, AMT Director of Sales & Marketing Stephanie Rosenberg

**Photography by
Cherie Roberts**

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~ Jason Lawhorn
Research Manager, AMT

the organization. The training projects produced annual savings of more than \$300,000 in scrap reduction and reduced the travel distance of the column-loading process by 60 percent, resulting in improvements to on-time delivery, customer satisfaction, and a stronger financial bottom line.

“While we identified this project as a company,” Lawhorn said, “DEMEP provided the tools and programs for us to systematically improve our process throughout the organization.”

AMT prides itself on a 95 percent employee retention rate and a quality-focused culture, and Lawhorn said the DEMEP trainings have contributed to that.

“As we hired more technically advanced employees and the company started to grow, our training needs grew as well, and DEMEP grew with us,” Lawhorn said.

This growth is on track to continue. The company is currently working with DEMEP on ISO-9001 certification that acts as proof of meeting a set of international standards on quality management and quality assurance. This certification strategically assists with AMT’s growth plan to increase international sales. To develop this strategy, AMT once again turned to DEMEP, and participated in an ExporTech™ program.

“This program helped us develop and implement a very comprehensive export plan that is specific to AMT, our industry and customer base,” Langlois said.

According to Lawhorn, AMT is now looking into innovation training because “even with everything we’ve done, DEMEP has shown us that in the true spirit of continuous improvement, there is always more to do.” He said the innovation training will help the company put in place tools and processes needed to identify the next new product and get it to market quickly and cost-effectively.

“We can all speak the same language now,” said Dan Casey, HR & EHS manager for AMT. “We have standardization so that our customers are getting the same high-quality product every time. The programs from DEMEP have helped turn us into what we are now. We are learning how to turn a start-up into a world-class manufacturing company.”

