MASSACHUSETTS MANUFACTURER TAKES ON SKILLS GAP
GRANT-FUNDED TRAINING PROGRAM BOOSTS PRODUCTIVITY AND MORALE
INTRODUCTION

Unable to find the skilled workers needed to grow its business, Arwood Machine Corp.—a high-precision machine shop in Newburyport, Mass.—partnered with workforce development expert Tooling U-SME® to build a customized training program that would fill its high-skills pipeline.

Like many other small- and medium-sized manufacturers in the state and across the nation, Arwood leadership initially didn’t think it could afford this type of support. The key? State funding.

ARWOOD’S STORY

WORKFORCE INVESTMENT
After Arwood lost a long-time customer because it was unable to hire enough skilled workers to fulfill a large order, CEO and owner Michael Munday decided to make an investment in his workforce.

“The only way to maintain and grow a company is to develop training in-house,” says Munday, who is active on several area workforce and education boards. “Technology is advancing dramatically, and to keep moving forward, the key is continuous improvement around equipment, processes and employees.”

FINDING A STRATEGIC PARTNER
Munday, who expects the skilled labor shortage to increase as workers head into retirement, worked with Tooling U-SME to create a training program that would develop new employees and sharpen the skills of incumbent workers.

“Someone may claim to have 20 years of experience, but it could be one year repeated 20 times,” he says. “If there is no training, they haven’t learned anything new. I want to create a learning organization.”

ON-THE-JOB TRAINING
As the manufacturer of life-limited parts for critical pieces of equipment such as Patriot Missiles and Boeing’s Dreamliner, Arwood has high internal and external quality standards. To understand their importance, employees learn how and why each part is used.

“Millennials are a key part of our future, and they want to work on cool stuff, so we make sure they feel they are part of an important mission,” says Munday.

COST-EFFECTIVE SOLUTIONS
Like most companies, Arwood was concerned about the cost of training. Funding came through a general program grant from the Workforce Training Fund Program (WTFP) in Massachusetts.

“We had concerns we wouldn’t have the resources to do this, but with help navigating the submission process from Commonwealth Corporation and Tooling U-SME, grant funding made it possible," says Munday. “All systems degrade over time, and it’s important to make an effort to get better.”

Investing in training is also critical so that the industry thrives, according to Munday.

“For our country to be strong, we need manufacturing,” he says. “We can’t let that slip away.”
GROW BUSINESS
Skills Gap Causes Missed Opportunities

A lack of skilled workers impacted Arwood’s ability to grow and gain market share. While the company had the opportunity to win new business and make a capital investment in equipment, it didn’t have people to run the machines.

FILL VACANT POSITIONS
Training Helps Produce Qualified Employees

Facing the same talent challenges as many other companies in Massachusetts and across the nation, Arwood wanted to bring training for new and incumbent workers in-house without impacting productivity.

FIND FUNDING
State Program Supports Training

Realizing an investment in training was essential, Arwood looked for funding help at the state level.

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- Mike Munday, CEO and owner, Arwood Machine Corp.
Arwood worked with Tooling U-SME Learning Services to evaluate current practices and then design a customized program to train and retain high-performing employees. Together, Arwood and Tooling U-SME, working with Commonwealth Corporation to administer the grant, applied for and secured a general program grant from the Workforce Training Fund Program in the State of Massachusetts.

**PHASE 1**
Discovery

- Conducted job analysis and reviewed legacy materials.
- Developed job classifications and descriptions for 14 jobs.
- Built progression (progressive model) from entry level to more senior levels.
- Included jobs on the shop floor as well as jobs in engineering, quality and continuous improvement.
- Developed performance indicators tied to pay scale.
- Assessed employee skill sets.
- Designed a training curriculum including online and hands-on training.
- Ensured that standards adhered to the criteria set for government subcontractors and that standards were measurable and trackable.

**PHASE 2**
Job Descriptions and Training Rollout

- Provided training during downtime.
- Utilized the Tooling U-SME online class library that mapped to each job classification, creating course bundles for each job description that help employees prepare for the shop floor.
- Set up off-line tasks for each job description. For example, a Class C Deburring Technician must be able to operate passivation system.
- Set up a dedicated Training Center.
- Arranged an “in kind” contribution, whereby the State pays the cost to train employees based on their hourly rate and the number of hours needed for training.

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RESULTS

PRODUCTIVITY IMPROVEMENT
10% Upward Trends in Productivity
An Increase in the Productivity Growth Trend

REDUCTION IN SCRAP/REWORK
Scrap Cost as a Percent of Sales is at a Lower Level
Beginning to Ease the Month-Over-Month Variation of the Cost of Scrap

OTHER BENEFITS

DECREASED DEFECTS
Through Formal SOP (“Locking”) System

COMPETITIVE ADVANTAGE
Large OEM Customers Appreciate Commitment to Training Excellence

IMPROVED MORALE
Among Employees

INCREASED SKILLS
Among New Employees With Online Training

INCENTIVIZED TRAINING
Tying It to Pay Raises and Increases

REFRESHED SKILLS
Among Highly Skilled Employees

HEIGHTENED INNOVATION
Employees Looked for Better Ways to Work

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Arwood Learning & Development Snapshot

- **95 Employees**
- **Mandatory Training**
- **20% Increase in Average Test Scores**
- **100% Enrolled in Training Program**
- **7 Computer Stations in Training Center**
- **90-Day Reviews (Wage Increases Tied to Training Goals)**
- **3,168 Tooling U-FME Classes Passed Since June 2014**
“Arwood is way ahead of the industry. Employees must have one hour of training a week. If there is downtime, say waiting for an inspection, they can take a Tooling U-SME class.”

“A magic person is not walking through the door—we have to find people that want to learn, and train them in-house. This is the only place I have ever worked that makes education such a priority.”

“When I talk about making parts for Rolls-Royce airplanes and other things, that sounds cool to other kids. Manufacturing is a good career with interesting work, and it pays well.”

“When I started, I didn’t know about CNC programming. I learned how to read the program, set the tools, read prints, use every tool, and measure. For me, Tooling U-SME courses are 100% helpful. Every class, I learn something, and then go to the shop floor and practice it.”
BEST PRACTICES
FROM MICHAEL MUNDAY, CEO, ARWOOD MACHINE CORP.

BUILD A LEARNING CULTURE
You need to develop a learning culture companywide based on continuous improvement. The entire organization needs to be focused on learning new approaches and technology.

BUILD IN FLEXIBILITY
Everyone has ebb and flow periods at work. Employees can receive training in pockets of “wait” time. Tooling U-SME’s online curriculum works well, as it is available 24/7 so team members can complete their compulsory hours no matter where they are.

FOCUS ON INDIVIDUAL TRAINING
Starting with a basic package created by Tooling U-SME, we were able to adapt it to specific job roles based on our company’s priorities. For every employee, we can create a customized plan based on their existing knowledge and skills, and build from there.

DEVELOP A TRAINING PROGRAM
This includes strong onboarding, formal training, assessments, continual education and “train the trainer” programs. A good training program is always evolving based on the newest philosophies, concepts and technologies.

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FUNDING

Many small- to medium-size manufacturers think they may not be able to afford an in-house training program, but, as Arwood discovered, state and national grants can make it a reality.

For example, Massachusetts is looking for programs that help small companies retain employees through training. According to Gretchen Schultz, workforce development coordinator at Tooling U-SME, many similar programs are available across the country.

“Tooling U-SME is the Match.com of funding,” Schultz says. “We can help with everything, including identifying available funding, explaining the process, connecting companies to funding agencies, filling out paperwork and completing the Tooling U-SME portion, reviewing grant applications, and offering best practices and tips.”

Schultz added, “We also have strong relationships with funding streams working in partnership with community colleges.”

Stressing that grants vary from state to state, Schultz says it’s important to research the best options in your area.

RESOURCES

Arwood’s story can be your story. Don’t let a lack of skilled labor derail your company’s growth plans. No matter what size your business, an investment in training and development can make the difference. For more information, please visit:

◆ arwoodmachine.com
◆ toolingu.com
◆ commcorp.org

TO FIND OUT HOW TOOLING U-SME CAN HELP YOUR COMPANY IDENTIFY FUNDING AND CREATE A WORLD-CLASS TRAINING PROGRAM, PLEASE CALL 866.706.8665 OR EMAIL INFO@TOOLINGU.COM.