Connecting Students with Manufacturers

by Bob Zaruta, President/CEO, NWIRC

This is an exciting time for middle schools and manufacturers across the Commonwealth as the What’s So Cool About Manufacturing (WSCM) regional student video contests start wrapping up. Within NWIRC’s 13-county footprint, there are 4 regional contests (3 of which NWIRC coordinates with support from numerous community partners and sponsors). The goal of WSCM is to create awareness within the schools and the community about cool manufacturing careers through the eyes of 7th and 8th grade students. Each team, guided by their Teacher Coach, conducts research, films at the company, and edits their video for final submission to be eligible for several award categories. The community can get involved too by voting to select the Viewer’s Choice award winner at www.WhatsSoCool.org. Each regional contest hosts an awards event to announce winners in various categories. The top winners among each of the contests will advance to the Statewide Awards on April 29th in Harrisburg, PA. Last year, there were 15 WSCM contests throughout the Commonwealth with 239 schools paired with 239 manufacturers and there were 902,520 online votes cast for Viewer’s Choice awards.

You can get involved by voting for your favorite video (or school or manufacturer) during their respective voting dates. The voting dates for the programs in our footprint are below. To view the videos and vote- you can visit www WhatsSoCool.org and look for the specific contest tab. On the website you can also see the numerous featured manufacturer sponsors, program sponsors, and community partners who we thank for their support of the program.

WSCM was developed in 2014 by our sister-Industrial Resource Center in Lehigh Valley, Manufacturers Resource Center (MRC), to help change perceptions of manufacturing careers. Teachers and students continue to comment about the cool things they learn about companies in their own backyard. Manufacturers each year are enthusiastic about the opportunity to connect with the schools and tell their story for the middle school students to share with the entire community.

As I’ve mentioned many times, there are great things going on throughout our region to encourage youth to consider manufacturing careers. This includes, not only WSCM, but current activities that the GR8T Manufacturing Partnership is focusing on to increase awareness among 7th/8th grade classrooms, high school pre-apprenticeship programs, and the new McDowell Manufacturing* initiative that NWIRC is excited to help launch and move forward- just to name a few.

*More information on McDowell Manufacturing included in this newsletter issue.

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Vote
www.WhatsSoCool.org

North Central (NCEN): March 2-4
Northwest (NW): March 16-18
West Central (WCEN): March 23-25
Forest Oil Region (PA Forest & Oil): March 30-April 1

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Gasbarre Products: Operational Excellence with a Tight Methodology

Gasbarre Products, Inc. of DuBois, PA was founded in 1973 to design, manufacture, and service a complete line of powder compaction and sizing presses for the powder metallurgy industry. Since then, Gasbarre has expanded both vertically and horizontally and now owns and operates 5 manufacturing plants. While Gasbarre Products’ end users serve several markets, including lawn & garden and medical, they are highly concentrated in the automotive market. Capital equipment sales, including presses and industrial furnaces, represent the majority of Gasbarre’s sales revenues.

One of the company’s strategic business goals is a 25-40% sales increase of its Manufacturing Technologies division, including contract manufacturing for welding and machining, to reduce risk of economic cycles associated with capital equipment sales supporting the automotive market. Accomplishing this lofty goal requires Gasbarre to implement organizational excellence initiatives that will improve workplace organization, cleanliness, safety, increase on-time delivery, and increase production capacity. Gasbarre was not practicing routine continuous improvement activity and had not implemented new process improvement initiatives since the early 2000’s. As a result, they saw key operational metrics affected such as decreased on-time-delivery and increased scrap rates.

To achieve the greatest success, they needed more resources and the tools and methodologies to effectively and efficiently implement a targeted program. Time was of the essence, because missed opportunities are potentially lost revenues. Heath Jenkins, President of Press & Automation at Gasbarre Products, wanted a solid plan for continuous improvement. “Often the biggest problems with continuous improvement are where to begin and then how to sustain,” he said.

As a result of discovery meetings with NWIRC, a solution was outlined for partnering with a highly experienced practitioner using operational excellence tools, such as Theory of Constraints, Lean, Six Sigma, and others, to assess and document current operations and subsequently defining the future state design for their DuBois facility. The methodology consisted of outlining the current state, developing the future state design, goal tree, and implementation plan. Max Krug, of Future State Engineering, was looped in to conduct an ‘Operational Excellence Future State Design Sprint’. Krug has a long standing and successful track record of assisting manufacturers to improve productivity, efficiency, and operational performance.

At completion of the Design Sprint project, Gasbarre was presented with a 1) current state reality tree with injections necessary to transition to the desired future state, 2) a current and future state value stream map, 3) a future state reality tree with an associated goal tree, critical success factors and associated key performance indicators (KPI), and most importantly, 4) an implementation plan for attaining the desired future state. An operational excellence workshop was also conducted for leadership, managers, and key supervisors.

Jenkins said, “I knew we needed a roadmap or a scaffolding to help frame everything out – so that is what the design sprint project did for us. We knew it would give us an idea of what to focus on first because we want our team to be as efficient as possible. As a result, we identified 30 key processes to focus on that, when optimized, will have an outsized and positive ripple effect throughout the organization.”

According to Jenkins, a significant factor for success of the project was the tight methodology for the project. “Max was able to get buy-in by interviewing 14 team members in various roles and levels and we built the road map with him. We learned his philosophy of getting the systems stable first, before starting to make any improvements. This changes the typical mindset of ‘putting out fires’ which is a big waste of time;” he said.

The Design Sprint project exceeded expectations and it also qualified for financial support through the ARC PA MAKES Mini-Grant Program helping small & medium sized manufacturers engage in projects leading to company growth. Gasbarre is now set with critical success factors and key performance indicators to move forward with the next phase – implementation. Improving workplace organization, cleanliness, and safety will eventually result in increased production

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efficiencies, reduced operating costs, and most importantly, improved worker safety and culture. Ultimately, their results could see sales increases exceeding $1M and a cost savings of over $500K.

“We appreciate organizations like NWIRC. Western PA can be a challenging environment and it’s great having resources to point you in the right direction. We’re excited to jump into the next phase of the operational excellence project for implementation,” Jenkins said.

Side Note: NWIRC has scheduled several Operational Excellence Workshops in the region featuring Max Krug. See www.nwirc.org/event for details of workshops scheduled in DuBois, Erie, and Mercer.

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PA Training to Career Grant Awarded for McDowell Manufacturing

Governor Tom Wolf recently approved funding support for a new initiative of the Millcreek Township School District (MTSD) and Northwest Industrial Resource Center (NWIRC). The Pennsylvania Department of Community & Economic Development Manufacturing Training to Career Grant Program will provide $197,363 for a new student-run enterprise, a collaborative partnership of MTSD and NWIRC. “This grant will enable us to take our Manufacturing Academy, launched in January 2019, to a higher level by having students work to meet needs of local manufacturers by manufacturing actual products. We have been listening to local manufacturing companies and are committed to meeting the needs of our community,” said Kyle Bucholtz – McDowell Manufacturing Academy Teacher.

“The new student-run manufacturing enterprise, known as McDowell Manufacturing, puts the information learned in their coursework to practical use as students produce actual parts, deliver services, and add value as part of the supply chain for local manufacturers,” said NWIRC President, Bob Zaruta. Over the course of an academic school year, students will learn about and perform different job functions in manufacturing, develop essential and life-long skills, utilize advanced manufacturing technologies, and build relationships with local companies. At the same time this work readiness is occurring, capacity for local business leaders is advancing, a short-term solution to job placement is underway, future talent pipeline issues are being addressed, and the next generation of manufacturing business leaders is being cultivated. Initial positions of the student-run enterprise will include Production Manager, Machinists, Business Manager, and Marketing Manager. Through the experience, students will interact with local manufacturers, understand their requirements, key processes and performance metrics for production, quality, and on-time delivery, and help advance manufacturing capacity. Through a collaborative exchange, students will have the opportunity to be mentored, gain expert insight, and develop essential and advanced manufacturing skills. The working relationships established and developed will position the students for future employment opportunities.

Essential for McDowell Manufacturing is the collaborative partnership among MTSD, NWIRC, and area manufacturers. NWIRC is positioned to be the connector between education and industry in this initiative and also lend its manufacturing expertise to McDowell Manufacturing. “Our mission is to respond to the needs of manufacturers in the region to help their businesses grow and this program responds to their need for building a future talent pipeline. We think it’s a program that can be replicated at other schools throughout the region and NWIRC looks forward to helping that become a reality,” Zaruta said.

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Upcoming Training

Be sure to visit www.nwirc.org/event for our latest training schedule or call to explore onsite training for your team. Some of the upcoming topics include: Operational Excellence, Lean Basic Training, Hubspot CRM Workshop, GD&T, AS9100D, and Measurement System Analysis.

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Experienced Business Advisors Driving Impact for Manufacturers.
YOUR STRATEGIC BUSINESS ADVISORS

If you have questions, or would like to speak with someone from NWIRC about services, please contact your Strategic Business Advisor (SBA):

**Tom Weible**  
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**Lisa Pustelak**  
814.683.1034  
Crawford, Warren Counties, Corry & Edinboro

**Andrew Idzik**  
814.217.6068  
Erie County & Bradford

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**UPCOMING EVENTS**

**Operational Excellence Workshop**  
Mar 10, Apr 21, June 6  
Locations: DuBois, Erie, and Mercer

A highly interactive workshop to learn the conditions to create a high-performing organization, including roles of leadership and customer focus, establishing and measuring performance metrics, creating a stable and capable delivery system, and converting improved operational performance into growing sales.

**Measurement System Analysis**  
Mar 12  
Location: St Marys

As another tool for quality management, participants will learn the concept for assessing, measuring, and improving the reliability of their measurement system. You will review different sources of measurement variation and techniques to identify, isolate, and reduce measurement variation.

**Hubspot CRM**  
Mar 20, 25, Apr 23  
Locations: DuBois, Franklin, and Erie

This hands-on workshop will help you get started with the HubSpot Free CRM. You will gain the essential information needed to immediately start using the CRM and begin the process of customizing the system for company-wide use at your organization.

**Lean Basic Training**  
April 30  
Location: St Marys

The class combines lecture and simulation to provide a firm foundation of lean manufacturing techniques. Plant layout, One-Piece Flow, TPM, Cellular Production, Kanbans, and Quick Changeover - to name a few. Each concept will build upon your ability to eliminate waste at your company.

For more information or to register for training, visit www.nwirc.org