# "What's So Cool About Manufacturing?" Video Contest Announces 2024 Central Susquehanna Awards

written by Lauri Moon | April 23, 2024



The Innovative Manufacturers' Center (IMC), Central Susquehanna Intermediate Unit, BLaST Intermediate Unit, Advance Central PA and The Foundation of the Columbia Montour Chamber of Commerce are proud to announce the award recipients for the "What's So Cool About Manufacturing?" (WSCM) Central Susquehanna student video contest awards. The ceremony was held April 16<sup>th</sup> at the Pine Barn Inn in Danville, PA.



The WSCM contest partners students from middle schools in Central PA with local

manufacturers. Each student team scripted, shot, edited and promoted a short video that documents their experience highlighting what is "cool" about manufacturing. Two videos in the region will be moving on to represent Central Susquehanna at the annual statewide competition being held in Harrisburg next month.

The video with the most votes, during three days of online voting in March, received the "Viewers' Choice Award." A panel of judges reviewed the videos for awards in three other categories including Outstanding Overall Program, Outstanding Team Spirit and Outstanding Brand Placement.

"We had a really great contest this year with students and their manufacturing partners working together to highlight what's so cool about manufacturing in Central PA. In our fourth year of this contest, we had a record number of votes for the Viewers' Choice award of over 71,000 votes," said Lauri Moon, Manager of Outreach & Special Projects with IMC and Co-manager of the Central Susquehanna contest. "The students, teachers and manufacturers put in so much hard work, and it definitely showed in their final videos."

This year's awards and their winners are:

- 1. Outstanding Overall Program: Mount Carmel Area Middle School & Great Dane
- 2. Viewers' Choice Award: Central Columbia Middle School & Bloomsburg Carpet
- 3. Outstanding Team Spirit: Mount Carmel Area Middle School & Great Dane
- 4. Outstanding Brand Placement: Bloomsburg Area Middle School & GAF

Congratulations to the Mount Carmel Area Middle School/Great Dane and Central Columbia Middle School/Bloomsburg Carpet teams who are moving on to the statewide competition in Harrisburg next month.

Partnering with the Innovative Manufacturers' Center on this regional contest are Central Susquehanna Intermediate Unit, BLaST Intermediate Unit, Advance Central PA and The Foundation of the Columbia Montour Chamber of Commerce. Funding for this program is made possible by these organizations and, in part, by EITC, PASmart and PA Department of Labor & Industry Business & Education grants.

To check out this year's Central Susquehanna What's So Cool About Manufacturing? videos, visit https://www.whatssocool.org/contests/central-susquehanna/.

Visit WhatsSoCool.org for more information and follow on Facebook.com/WSCMCenSusq.



Mount Carmeel & Great Dane: 2024 WSCM Outstanding Overall Program and Outstanding Team Spirit Winner



Central Columbia & Bloomsburg Carpet: 2024 WSCM Viewers Choice Winner

# Voting To Begin for "What's So Cool About Manufacturing?" Central Susquehanna Video Contest

written by Lauri Moon | April 23, 2024





IMC is proud to announce online voting for the  $4^{th}$  year of the Central Susquehanna "What's So Cool About Manufacturing?" (WSCM) student video contest. Voting will commence Tuesday, March 26, 12:01AM, and remain open until Thursday, March 28, 11:59PM, on the Central Susquehanna contest page at https://www.whatssocool.org/. The winner will be announced during an awards event to be held April  $16^{th}$ .

Central PA school districts participating in this year's video contest include Bloomsburg, Central Columbia, Huntingdon, Mount Carmel, Southern Columbia and Williamsport. These school districts videos will highlight these "cool" manufacturers in Central PA: Bloomsburg Carpet, GAF, Gardners Candies, Great Dane, Press Enterprise and West Pharmaceutical Services.

Student videos compete for the most votes to win the coveted "Viewers' Choice Award." The videos will also be reviewed by a panel of judges for awards in three other categories, including Outstanding Overall Program, Outstanding Team Spirit and Outstanding Brand Placement.

"We are excited to see our school districts and communities participate and support

the hard work the students, teachers and manufacturers have put into this program," said Lauri Moon, Co-Manager of the Central Susquehanna WSCM regional contest. "Online voting affords everyone the opportunity to participate and see the videos while further spreading the message about cool career opportunities in Central Pennsylvania manufacturing.

The WSCM program was created to generate excitement that draws students toward STEM education opportunities and to consider manufacturing career paths as they engage with local manufacturers, recording and presenting their experiences in an educational and "cool" way through documentary video production.

WSCM Central Susquehanna will choose two videos to represent the region in the Annual Statewide "What's So Cool About Manufacturing?" Awards May 15<sup>th</sup> in Harrisburg.

### IMC Welcomes New Team Members to Support Central Pennsylvania Manufacturing

written by Lauri Moon | April 23, 2024

INNOVATIVE MANUFACTURERS' CENTER

The Innovative Manufacturers' Center (IMC), Inc. is excited to welcome Brian Wagner as a Business Advisor and Alisa Fairweather as a Business Solutions Specialist to its team of Central PA resources. In their new roles, Brian and Alisa will work closely with other members of the IMC team in developing trusted advisor relationships with Central PA manufacturers and

providing manufacturers with a wide range of high-value services that directly support their success. Brian and Alisa will actively contribute to developing and implementing various services to clients that will improve their business strategy and growth, process improvement, systematic innovation, among other areas.

"The IMC team is excited to have Brian and Alisa join us to better serve the manufacturers in our region. Brian brings with him a wealth of experience and expertise in supply chain management, production planning, and strategic procurement, acquired over decades of dedicated service in various manufacturing environments. Alisa's expertise in continuing education and professional development makes her a perfect match to assist our clients in advancing their employee's professional growth and business advancement." Dennis Gilbert, IMC President.



Brian Wagner is from Central PA and has worked in a variety of manufacturing companies in the area as a purchasing manager, warehouse manager, and production planner. "I look forward to leveraging my experience and skills to support the manufacturing community and help them tap into the resources needed to succeed in today's competitive landscape." Brian Wagner, IMC Business Advisor. Brian is a Certified Purchasing

Manager, Certified Professional in Supply Chain Management, Certified Professional in Supplier Diversity and holds a Bachelor of Science in Computer Science Engineering from Bucknell University.

Alisa Fairweather recently returned home to Central PA from Oregon and brings with her several years of experience in career and professional development, strategic planning, and policy development. "I am very excited to join the IMC team. They are truly dedicated to their mission of providing services and resources to manufacturers in Central Pennsylvania and contributing to the



economic stability of the region." Alisa Fairweather, IMC Business Solutions Specialist.

Alisa has a Master of Public Heath from Portland State University and a Bachelor of Arts in Psychology from the American University.

### Pennsylvania Manufacturers Report Significant Benefits and Impacts from Statewide Industrial Resource Center Program

written by Lauri Moon | April 23, 2024

According to data voluntarily provided by 575 small and mid-sized manufacturing firms across Pennsylvania throughout 2023, the statewide Industrial Resource Center (IRC) initiative, the Commonwealth's flagship program for strengthening the competitiveness and resiliency of smaller industrial firms, generated significant positive results among users of their services. Over the past 12 months, manufacturers that utilized IRC professional services avoided 7,197 layoffs while adding 1,462 full-time workers to their rosters. They also realized \$796.8 million in retained sales and secured \$256.4 million of new customer orders as results of their IRC advisement and engagements.

In addition to growing their workforces and increasing their top-line revenue numbers, companies that performed consultative projects with their regional IRC reduced their non-personnel operating costs by \$187.1 million over the past 12 months, avoided \$36 million of unnecessary expenditures, and invested more than \$376.8 million in new equipment, facility expansion, advanced technologies and workforce training.

Pennsylvania's IRC initiative consists of seven affiliates across the Commonwealth including the IMC.

The revenue, cost savings, regional investment and job impacts reported by 575 IRC clients was gathered by an independent market research firm and confirmed by the U.S. Department of Commerce.

Click here to View the IRC Network 2023 Client Engagement Impact





# IMC Recognized by SHRM to Offer Professional Development Credits (PDCs) for SHRM-CP® or SHRM-SCP® Recertification Activities

written by Lauri Moon | April 23, 2024

The Innovative Manufacturers' Center (IMC), Inc. is thrilled to announce its recent recognition by the Society for Human Resource Management (SHRM) as a SHRM Recertification General Provider. IMC is now authorized to offer Professional Development Credits (PDCs) for SHRM-CP® or SHRM-SCP® recertification activities.



As a SHRM Recertification General Provider, IMC's SHRM approved training programs will qualify for SHRM Professional Development Credits. These credits are specifically designed to enhance HR knowledge and competency in alignment with

the SHRM Body of Applied Skills and Knowledge™ (the SHRM BASK™).

Dennis Gilbert, President of IMC, expressed his enthusiasm about this recognition, stating, "IMC is excited that our approved training programs and events will be able to provide SHRM Professional Development Credits to our manufacturing clients. Small and mid-sized businesses, including manufacturing, face a special challenge in attracting, selecting, onboarding, engaging, and retaining workers today, and IMC continues to add programs and services to assist our clients in addressing these concerns, including our 5 Module webinar series, 'Meeting the HR Challenge.'"

About SHRM: The Society for Human Resource Management (SHRM) is a leading professional organization dedicated to advancing the practice of human resource management. SHRM provides resources, tools, and networking opportunities to HR professionals globally, aiming to elevate the HR profession and contribute to organizational success.

# Success Story: Rockland Manufacturing Invests in Training to Prepare Workforce for Change in Production Flow

written by Lauri Moon | April 23, 2024



Rockland Manufacturing Co., located in Bedford, PA with approximately 250 employees, is a medium-sized manufacturer of bulldozer blades, loader buckets,

beach cleaning equipment, and land clearing equipment. Rockland primarily serves the crushing, aggregate, and log loading markets.

Rockland was beginning to implement a major change to their long-established production methods. In fact, the current flow had been in place for well over 30 years. The major change was to create a combined production method/department from two formally standalone functions. The change required changes in supervision, ERP tracking, production planning and scheduling, and manufacturing engineering processes.

The change is driven by the need to improve efficiency, specifically by reducing the amount of handling and transportation of certain products. By combining production functions for several of their product lines, both assembly and finish welding functions will be accomplished at the same workstation. Formally, a product would be assembled at one location in the plant, then transported by overhead crane to be staged at the second location until that department had capacity to work on it.

Rockland had already conducted experiments to prove that the change to the production flow would be successful in improving efficiency, but since the change had far-reaching affects throughout most departments within the entire company, management felt that specific training of key stakeholders was needed to help build unified momentum for implementation and asked IMC to provide this training.

The Rockland management team, while in consultation with IMC Business Advisor, Tim Davis, expressed concern about meeting project goals and objectives since the front-line production workers and their direct supervisors were accustomed to years of the current state workflow processes. Many organizations entering significant operational change are very good at getting the proper capital requirements and soft costs calculated and controlled, the weakest link is often underestimating the human side of change. As such, IMC proposed a Change Management training initiative that would complement the capital investment already being made.

Tim Davis expressed, "This training is essential, it is beyond the capital equipment, renovation, and other costs normally associated with significant change, it can make or break the change effort including the need to extend timelines and adjust milestones when employee teams struggle through the transition."

The IMC team helped Rockland identify key personnel who had responsibility and direct impact on the change requirements. Additionally, the team investigated the organizational requirements compared with the current state of the supervisors and other key personnel to identify gaps and develop a program specifically designed to help the Rockland team navigate a successful transition.

A highly customized change management training initiative was deployed by the IMC. It focused on how to anticipate the implications of change, how to monitor and adapt to change, how to communicate through it, and how to keep changing and improving. This training included interactive exercises to help the participants be more comfortable with the new changes to their workflow, break down potential barriers to implementing change by improving communication, and really focus on the importance of positive changes in production. All customized to align with the requirements for a successful transition to the new process.

Impressed with the results, the Rockland management team reported that the training provided by the IMC was successful in helping their workforce understand the need for change in their production methodology. Particularly, they pointed out that communication about the change improved. The interactive exercises conducted by IMC in the training helped break down communication barriers and improved teamwork. The momentum for moving forward with the production change was achieved, and since then the new assembly/weld function is established and becoming an accepted part of the company's culture.

"We're very pleased with the results of the training. It was a great way to break the ice regarding a systemic change in one of our oldest and most experience facilities. By training on change management, discussing the benefits of the change, and how to properly communicate the outcomes of the change, we experienced much less of the typical resistance to change that one usually experiences in any business environment. The project was done faster, with less effort, much less drama, and most importantly, we haven't had any trouble with making the change stick over time. We're now building more, more efficiently, together, than ever before." Bo Pratt, President, Rockland Manufacturing Co.





# Due to expanding opportunities, IMC has two Business Solutions Specialist Positions Open.

written by Lauri Moon | April 23, 2024

Are you a strategically savvy achiever with a passion for business and a heart for the clients you serve? Are you a conscientious, can-do team player comfortable fielding a variety of business challenges while providing deft business guidance? We're looking for a dedicated, driven self-starter to join our growing team and make us even stronger.

From providing real-world strategic guidance on technical or other business services/advising Small and Medium-sized Manufacturing Entities (SME) in identifying, qualifying, and prioritizing new business opportunities following a sales process, you'll own and execute various vital business services critical to our clients'

growing and continued success.

We value our employees and respect their unique contributions. Our employees enjoy a dynamic, team-first culture, engaging and meaningful work, a collaborative environment, and the unsurpassed opportunity for growth and advancement. Seize the chance to contribute to clients' achievements, bolster your strategic business prowess, and craft a fulfilling career you love.

Ready to get started? See the job details below.

#### **RESPONSIBILITIES**

#### What You Bring to The Table

Following are the key professional attributes that will lead to success in this role:

- *Communicator* Your written and verbal skills are exceptional. You can easily communicate complex topics to individuals and groups.
- *Collaborator* You are a trusted partner and teammate. You enjoy partnering with others and working collaboratively toward a common goal.
- Change Agent You have a constant pulse on both the big picture and bottom line.
- *Connector* You enjoy networking and developing long-term customer relationships that lead to ongoing business opportunities.
- *Detail-oriented* You embrace timelines, keep within budgets, and can handle whatever comes your way with the most incredible ease.
- Business-savvy You are dedicated to your craft, stay apprised of industry trends, and always have a pulse on the latest insights and best practices

#### What You Can Expect Day-to-Day

Reporting directly to the president, the **Business Solutions Specialist** assists in developing trusted advisor relationships with key personnel at SMEs in the IMC service region and aids in providing these SMEs with a wide range of high-value services that directly support their success. In this vital role, you'll actively contribute to developing and implementing projects that may involve direct delivery of services, including business strategy, business growth, process improvement,

systematic innovation, and other solutions. Core responsibilities include:

#### Outreach and Relationship Development

- Continuously develop knowledge and a broad understanding of manufacturing markets, SME issues and needs, new manufacturing technologies, business growth strategies, business trends, and process improvement practices, including Lean, Continuous Improvement, Advanced Manufacturing Technologies, and Innovation Practices.
- Support identifying opportunities to create high-value exchanges (educational, informative, supportive, and collaborative) with crucial personnel at SMEs using various media (phone, e-mail, in-person, etc.) daily.
- Contribute to identifying high-capability solution providers whose capabilities align with IMC standards and focus areas as well as the essential needs of the SME.
- Develop supportive win-win relationships with academic, federal, state, and local agency partners, ensuring that they have a clear understanding of IMC's mission and core competencies, and that IMC has a clear understanding of partner missions and competencies.
- Assist in the development of customer leads and follow-up to make clients aware of services, fee and in-kind, available through IMC and other public or private resources.
- Coordinate the process of identifying, qualifying, and prioritizing new business opportunities following a sales process.
- Support IMC's pipeline of business opportunities at various stages of development: prospecting, qualifying, engaging, and follow-up.

#### Client Interface and Project Management

- Develop trusted relationships with key personnel and leaders of SMEs.
- Support work with company engineers, technical staff, or management personnel to evaluate manufacturing strategies, production processes, manufacturing technologies, workforce or business processes, product development, and marketing and sales strategies that benefit the client.
- Assist in the development of project strategies and approaches that will provide SMEs with solutions to increase their competitiveness through

- operational improvements, cost reductions, market differentiation, and sales effectiveness or other measures for bottom-line improvements or top-line growth.
- Coordinate the development of project proposals outlining costs and benefits that respond to customer needs, therefore delivering results and impact for the client.
- Provide support to project management throughout the project.
- Contribute to the technical or other business services/advising SMEs and assist with making presentations on technical, engineering, or relevant business topics in conjunction with service providers.
- Aid in client follow-up to ensure the timely implementation of project recommendations and to ensure project quality and value.
- Serve as a connector among regional manufacturing entities to identify partnership opportunities.

#### IMC Program Management

- Assist the acting program coordinator for special programs when assigned.
  This will include assisting with being the point of contact for participants, coordinating activities for the program, marketing the program, and completing necessary reporting to any agencies and internally for IMC.
- Aid the manager with special project initiatives as determined by the President (i.e., peer forums, lean users' group, etc.). This will include aiding in coordinating logistics, preparing materials, ongoing communication, follow up with participants, and completing all reporting necessary to any agencies and internally for IMC.

#### *IMC Infrastructure Support*

- Aid in the development of a range of educational opportunities, high-capability, and well-aligned partnerships and business solutions that support the needs of SMEs with emphasis on Lean, Continuous Improvement, Advanced Manufacturing Technologies, and Innovation Practices to build IMC's reputation as the region's thought leader on manufacturing's most critical challenges.
- Interface with a variety of partners, including state and federal funding

agencies, regional economic development organizations, engineering resource centers, and educational institutions, to advise IMC management on new services or resources that may be available to assist clients.

- In consultation with internal and external customers and stakeholders, recommend policies and procedures for IMC Business Solutions Specialist operations and initiate process improvements for their role.
- Maintain a current understanding and utilize CRM (Salesforce) as well as any other partner CRM systems.
- Coordinate and communicate effectively with President or administrative team to ensure required metrics are submitted to the CRM in a timely manner and verified as accurate. Use IMC processes to aid in managing impact reporting and survey management processes for clients.
- Coordinate with the Financial & Contracts Manager to ensure contracts are executed in an appropriate manner.
- Meet or exceed established goals for projects and programming assigned throughout the year.
- Perform other appropriate job-related duties as assigned by the President.

#### What it Takes

The best Business Solution Specialists are astute business strategists committed to excellence, fueled by exceptional customer relationships, and relentless about client success.

#### Minimum Required:

This position requires occasional work at a client location, which may be in a manufacturing or non-office environment. Frequent travel throughout the service region, intermittent statewide travel, and infrequent out-of-state travel is expected and requires the ability to drive a vehicle.

- Bachelor's degree in a business or technical field or an appropriate combination of both education and experience
- 1+ yrs. experience with a private-sector manufacturing business or equivalent
- Basic knowledge of manufacturing initiatives, such as Lean, ISO, Six Sigma,

- strategy, growth, sales and market development and innovation
- Intermediate Microsoft Office Suite skills (Word, PowerPoint, Excel, etc.)
- Experience working one-on-one with executive leaders to provide strategic counsel
- Innovative change agent with the ability to respond to a dynamic and often unpredictable business and funding environment
- Exceptional communication skills, both verbally and in writing, with the ability to explain complex concepts and ideas to individuals and groups
- Mission-oriented with a demonstrated commitment to client success
- Acton-oriented with solid self-motivation, decision-making, and problemsolving abilities
- Systems thinker, able to recognize the systematic nature of problems and identify system-oriented solutions
- Continual learner and pursues new ways to educate clients and deliver value
- Strong networking skills and strategies garnering credibility
- Effective sales skills and strategies
- Deep understanding of the needs, strengths, and weaknesses of others
- Proven ability to grow and develop client relationships
- Collaborates and works with others as part of a team to produce the desired outcome.
- Can quickly formulate questions and interpret responses
- Exceptional interpersonal skills necessary to deal effectively and courteously with coworkers, clients, board members, administrators, community representatives, and the general public
- Demonstrated sensitivity to diversity and multicultural issues
- Ability to lift to 50 lbs.

#### Preferred:

- Entrepreneurial, sales management, marketing, and development of B2B relationships or customer service experience
- Conversational competence in IIoT, Industry 4.0, Additive Manufacturing,
  AMT, and Cyber Security
- Permanent residence in the 12-county regions of Pennsylvania (Lycoming, Clinton, Centre, Northumberland, Juniata, Montour, Union, Snyder, Mifflin,

#### THE COMPANY

#### Our Commitment to You

Your success is our success. The Innovative Manufacturers' Center (IMC) is a public-private partnership dedicated to increasing Central Pennsylvania's manufacturing community through innovation, productivity, and profitable growth to drive economic impact. IMC offers a wide range of services to help Central Pennsylvania manufacturers innovate – and thrive. We are looking for a driven, emerging, business-oriented self-starter excited by the opportunity to partner with clients to bolster and impact their success. If you are a can-do, inquisitive problem solver looking for a like-minded team, let's start a conversation. Apply today by submitting your cover letter, resume and references to careers@imcpa.com.

IMC is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to sex, race, color, religion, national origin, age, marital status, political affiliation, sexual orientation, gender identity, genetic information, disability, or protected veteran status.

### IMC Welcomes Tricia Carl to the Team

written by Lauri Moon | April 23, 2024



The Innovative Manufacturers' Center (IMC), Inc. is excited to welcome Tricia Carl to its team of Central PA resources as an IMC Business Solutions Specialist. As an IMC Business Solutions Specialist, Tricia will work closely with the IMC's Business Advisor team in developing trusted advisor relationships with Central PA manufacturers and aid in providing manufacturers with a wide range of high-value services that directly support their success. In this role, Tricia will actively contribute to developing and implementing direct delivery of services, including business strategy, business growth, process improvement, systematic innovation, and other solutions.

"The IMC team is excited to have Tricia join us to better serve the manufacturers in our region. Tricia's expertise spans various business disciplines, which make her a perfect match to help our clients advance their manufacturing operations." Dennis Gilbert, IMC President.

Tricia comes to the IMC with several years of management and operational experience in manufacturing businesses in Central PA. Her career roles have included Operations Manager and Production Supervisor. Her areas of expertise include management, operations, inventory control, training, quality assurance, and process improvement.

"I am excited to be a part of the IMC team. In my previous manufacturing roles, IMC was a valuable resource for professional development, both personally and companywide. I look forward to building strong relationships with the manufacturers

in Central PA, to learn from them, and provide them with the tools necessary to succeed." Tricia Carl, IMC Business Solutions Specialist.

Tricia is a certified Lean Manufacturing Practitioner with a B.A. in Political Science from Dickinson College and a J.D. from Widener University School of Law.

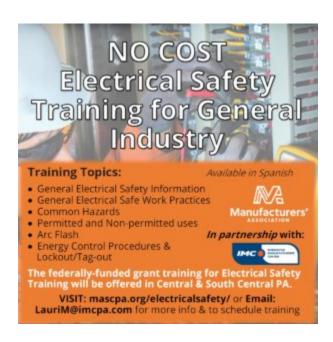
Connect with Tricia on LinkedIn.

### NO COST Electrical Safety Training Extended to December 31st

written by Lauri Moon | April 23, 2024

IMC, in partnership with The Manufacturers' Association, is extending the **No-Cost Electrical Safety Training for General Industry** to December 31st.

This opportunity is available through a grant provided by the Occupational Safety and Health Administration (OSHA). Companies are able to host training sessions onsite with a minimum of 10 participants.



#### **Training Topics Include:**

- General Electrical Safety Information
- General Electrical Safe Work Practices
- Common Hazards
- Permitted and Non-permitted uses
- Arc Flash
- Energy Control Procedures (ECPs) & Lockout/Tag-out (LOTO)

This NO COST training is available to workers and employers covered under the OSH Act of 1970, SEC. 4, codified at 29 U.S.C. 653 (Appendix B). This also includes multiple small businesses and temporarily unemployed workers who are planning to reenter the workforce in a position covered by the OSHA Act within the next three months.

The trainer is a CHCM, DSM, CHST, OSHA Consultation Program Consultant. He has been the trainer for over 100 OSHA 10- & 30-Hour training programs.

To schedule Electrical Safety Training at YOUR location, please contact Lauri Moon at (570) 329-3200 or by email at laurim@imcpa.com.

#### Susan Harwood Training Grant Program

This four-hour program honors the late Susan Harwood, former director of OSHA's Office of Risk Assessment, who died in 1996. During her 17-year OSHA career, she helped develop federal standards to protect workers exposed to bloodborne pathogens, cotton dust, benzene, formaldehyde, asbestos and lead in construction.

The training material was produced under grant number SH-39128-SH2 from the Occupational Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

## Success Story: QCast Aluminum - Casting for Efficiency

written by Lauri Moon | April 23, 2024

### IMC Facilitates a Value Stream Map for QCast Production Process Improvement



Located in New Berlin PA, (approximately 30 miles south of Williamsport, PA) QCast Aluminum Co. is a family owned, high-quality manufacturer of aluminum sand castings for commercial industries. QCast manufactures all their products in the USA and can

produce excellent finishes and sizes of parts, including prototypes and small to large production runs from 1 oz. to 300 lbs. They work with customers to develop a mutually beneficial long-term relationship and have a strong commitment focused on service, quality, deliverability and affordability. They have grown to become one of the highest quality sandcasting companies at the most competitive price.

#### **Situation:**

Working with our strategic partner PennTAP, who sponsored an E3 project (Economy, Energy & Environment), the Innovative Manufacturers' Center (IMC) was engaged to facilitate a Value Stream Map (VSM) to determine why QCast's production was unable to meet desired delivery times for their customers. The scope of the value stream map began with the core preparation area of production and ended at the finishing area. The VSM continued to track the various operations that included saw, belt sand, blast, drilling and inspection in the finish area.

The Work In Process (WIP) materials for the finishing area were stored in scattered locations causing some delays in finding them for finishing. In addition, the molding process continued to run at a faster pace than finishing could respond, creating a bottleneck in production flow. An accurate inventory was taken of the WIP at the finishing stage, and it was learned that 3x the original estimate of pieces was there. The mindset within the facility is one that is grounded upon 'keep the molders running', which caused overproduction and a choke point in finishing customer orders.

Adding to production flow delays, finishing operators performed excessive amounts of searching, stretching, reaching and bending for the parts resulting in additional non-value added efficiency losses. It was evident that in addition to the overproduction of parts, their multiple locations in the finishing area took time away from actual finishing work thus contributing to not meeting the delivery times promised to their customers.

#### **Solutions:**

At the completion of the 'Current State' VSM the project team, facilitated by the IMC, determined the 'Future State', which led the company to define several objectives. QCast wanted to exceed customer expectations by utilizing an effective pull system that would generate a 7-day throughput with a 4-week lead time, 99% on time delivery and a 100% quality level by September 1, 2023. Through the input of the QCast team, the IMC generated a series of challenges for the company to tackle and record the results over the next several weeks. The first two target conditions were designing a 'supermarket' that would visually control the work in progress inventory levels to 3-5 days and to improve the efficiency of the belt sanding area to 85%. The QCast VSM team conducted various experiments to see how best to meet their first target conditions.

Over the next several months the improvement in excess production was moving in the right direction; however, the team was still finding difficulty in addressing the finishing department's challenges, which were defining standard work and overcoming a shortage of labor.

#### **Results:**

Actual inventory being produced was tracked on a weekly basis, which resulted in the reduction of WIP sitting at the finishing stage by 54%. The finishing department continued to see challenges to meet the target condition until a member of the VSM team tried an experiment with the finishing of parts by running them through a tumbler; a process used in their sister company's metal fabrication process. The results were very



promising. After continued experimentation with various aspects of the tumbling process including time, media and actual parts to be finished, the company has calculated that they could increase finishing productivity by up to 300%. Because of the IMC's VSM facilitation, the members of the QCast team were able to implement a series of experiments and apply the continuous improvement culture that enables them to find a solution far beyond the original expectations. The company is planning on investing in the appropriate equipment during the first quarter of 2024 that will include the tumbling stage in their finishing process enabling them to reduce overall throughput and meet the delivery times their customers expect.

#### **Testimonial:**

"The Value Stream Mapping exercise conducted by the IMC enabled us to visually see the overall production process and the areas we needed to target for improvement. Without this process, QCast may not have identified the key areas needed to meet our overall objectives. We look forward to continuing to work with the IMC in the future." Terry Arnold, General Manager, QCast Aluminum

#### **Contact IMC:**

To learn how IMC can assist your Central PA manufacturing company with process improvement, contact us at 800-326-9467 or info@imcpa.com.