



 NJMEP

SUCCESS STORIES

New Jersey manufacturing is Built to Last.

ABOUT NEW JERSEY MANUFACTURING EXTENSION PROGRAM (NJMEP)

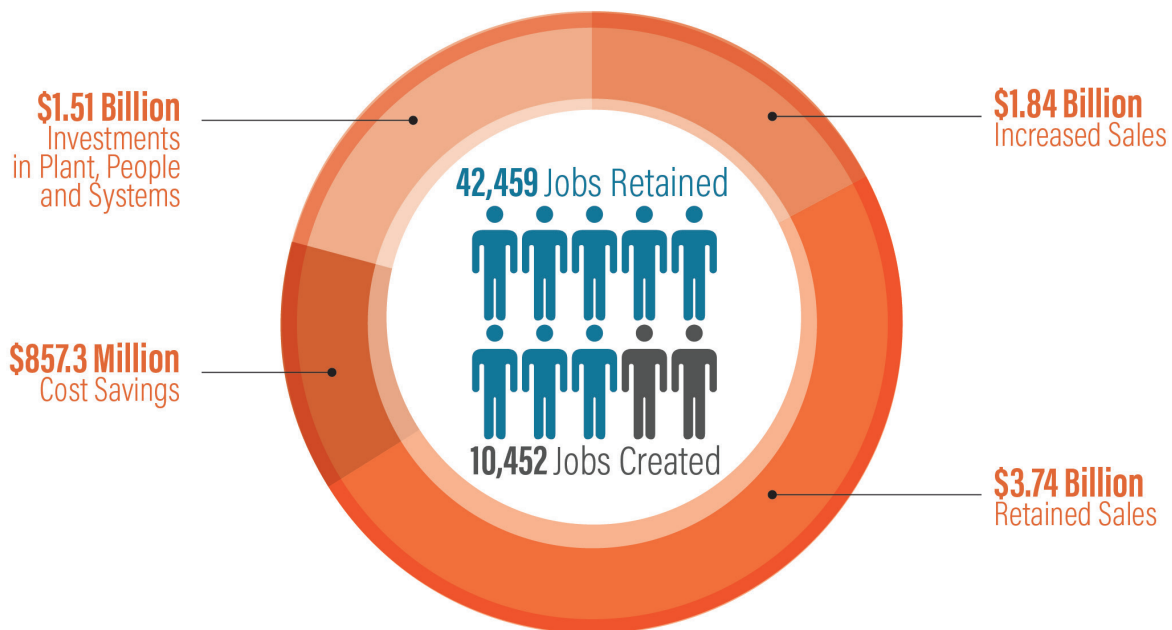
New Jersey Manufacturing Extension Program (NJMEP) operates through a cooperative agreement with the Hollings Manufacturing Extension Partnership (MEP) Program of the National Institute of Standards and Technology (NIST) under the Department of Commerce. NJMEP is part of the MEP National Network made up of 51 Centers throughout the country including Puerto Rico.

Utilizing staff expertise and collaborative partnerships, NJMEP enhances operational performance and productivity, drives new product development, market expansion, workforce development and upskilling initiatives, and technology adoption for New Jersey's manufacturers. NJMEP serves the unique needs and challenges of small and medium-sized manufacturers (SMMs) through a broad array of services that improve the top and bottom line. NJMEP will continue expanding the outreach to SMMs statewide to ensure every business has access to the services they require.

NJMEP is rated as one of the top MEP centers in the country. Over the last year, the National NIST-MEP Network alone created, or helped retain, 125,745 jobs, generated \$14.4 billion in new or retained sales for manufacturers, and helped save businesses over \$1.5 billion. NJMEP and the MEP National Network are dedicated to enhancing the productivity and technological performance of U.S. manufacturing. The impact these organizations have, and the benefits they bring to our economy are not just impressive—they are crucial to the sustainability of the nation.

NJMEP's services produce measurable results for manufacturers in New Jersey. Quarterly independent third-party surveys of the clients we serve certify the economic impact.

Since 2000, NJMEP has helped manufacturers realize more than
\$7.97 Billion Realized Value



Hk Metalcraft Upholds Reputation for Quality Management with Internal Audit Training

Background

Headquartered in Lodi, New Jersey, HK Metalcraft Manufacturing Corp. (HKM) is a family-owned and operated custom metal stamping manufacturer with nearly a century's worth of experience in the industry. Providing custom stamping, DFM, and custom engineering experience, HK Metalcraft is an innovative leader in the metal stamping industry led by the fourth generation of the Hopp family.

HK Metalcraft's state-of-the-art facility houses their corporate headquarters, manufacturing facility, and warehouse space, and by being under one roof it allows them to offer individualized customer attention, custom engineering, advanced manufacturing techniques, run more efficiently, and deliver their custom-manufactured products globally to innovative companies in North and South America, Europe, Africa, Asia, and Australia.

Challenge

Facing an aging workforce without the talent pipeline to refuel and fill the gaps, HK Metalcraft finds itself in a position all too familiar to other manufacturers in the industry. When it comes to something like Quality Management, HKM has been a leader for nearly a century, delivering reliable custom metal components around the world while holding true to their commitment to customer satisfaction and quality. With this dwindling workforce come certain challenges that many manufacturers must face.

For John Speidel, General Manager of HKM, and a manufacturing leader with over 20 years of experience in the industry, "The challenge that brought us to NJMEP was increasing the number of resources we have capable of performing internal audits and collecting quality data, especially from an SPC (Statistical Process Control) standpoint." SPC is an industry-standard methodology for measuring and controlling quality during the manufacturing process, which allows quality data in the form of Product or Process measurements to be obtained in real time. Having this real-time data is critical in an industry where precision metal-making features tight tolerances and high-quality

standards to ensure products perform to the standard and reputation that HKM has developed over 90 years.

"One of the ways this could disrupt our operations in the future would be with retiring employees and succession planning," says John. "We needed to ensure that some operators who've never been trained to perform audits could do so in the future."

Solution

John and his team decided to enlist NJMEP's expert resource to help train a new batch of internal auditors who could carry out quality audits going forward and ensure that HKM's products continue to meet the highest standards for its customers. With the relationship between NJMEP and HKM going back over a decade, NJMEP was the clear choice for facilitating their Internal Auditor Training.

"We've had NJMEP help us in the past with various aspects of management review and training new operators on metrology—using new measurement devices and instruments," says Speidel.

NJMEP's expert resource set about training ten HKM operators on how to conduct internal audits on manufacturing operations. First, they collaborated with John and his management team on audit planning and scheduling dates, then set about reviewing HKM's current documentation and updated the documentation wherever needed. The next stage was conducting process-based internal audits and recording findings before completing an audit report. Lastly, NJMEP's expert resource ensured HKM's QMS was compliant with ISO 9001: 2015/IATF 16949 Standard.

The following steps were taken:

- ISO QUALITY SYSTEMS – IATF Audit Training Session 1, 52 hrs, 10 employees
- LEAN MANUFACTURING- IMPLEMENTING 5S FOR WORKPLACE ORGANIZATIONS



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Session 1, 24 hrs, 10 employees

- MANUFACTURING TECHNOLOGY/TECH – Error Proofing – Pokayoke
Session 1, 24 hrs, 10 employees

In the wake of HKM's Internal Audit Training, John noticed some clear results of working together with NJMEP. "There were definitely some aha moments for operators that were never able to see some of the aspects that we just never trained them on—how all the data that we collect can be used to help them control their process," he adds.

Results

When asked about the success of the Internal Auditing Training project NJMEP and HKM conducted, John had this to say about working together: "I definitely recommend working with NJMEP," he says, "[NJMEP] provides manufacturers the tools they need to do things that you may otherwise not be able to do as a small business."

The following results reflect the impact HK Metalcraft Manufacturing Corp. experienced while engaging with NJMEP over the past 12 months:

- ✓ **New & Retained Sales:
Between \$20,000,000 and \$50,000,000**
- ✓ **New Jobs: 4**
- ✓ **Retained Jobs: 37**

What's next for HK Metalcraft? "We recently installed a 150-ton servo-press into operation and we're going to be able to expand our portfolio offering due to that," says John.

"We've continued to innovate in other areas—both metal and non-metal processing areas including value-add and automation."

John Speidel, General Manager, HK Metalcraft Manufacturing Corp.
(HKM)

Technology Isn't Going Away: Minor Rubber Implements CMMC 2.0 to Stay Ahead of Cyber Threats

Background

Minor Rubber began its journey as The Alling Rubber Company, and when they withdrew from the market, Charles W. Humphreys, a former employee, purchased the Newark, New Jersey location and Minor Rubber opened its doors in 1914. From the beginning, Minor Rubber established a reputation for innovative, high-quality rubber products, and was at the forefront of adapting to advancements and changing technologies in rubber materials. As technology advanced, Minor Rubber continued expanding its offerings and its product line forayed into custom rubber mats and matting, gaskets, and washers. With the onset of World War II, Minor Rubber again evolved to supply new products to the defense sector and then once again to the emerging aerospace and electronics industries of the '50s and '60s.

Half a century later, Minor Rubber is still a third-generation, family-owned New Jersey Manufacturer that utilizes more efficient manufacturing technologies and advanced rubber compounds, allowing it to remain on the leading edge of the market.

Challenge

As a supplier of standard and custom molded rubber components to the aerospace and defense industries, and with the onset of Cybersecurity Maturity Model Certification (CMMC) 2.0—a complex and rigorous process that determines how securely your organization creates, handles, and disseminates Controlled Unclassified Information (CUI)—there's a chance that without meeting these new compliance standards set forth by the Department of Defense, that suppliers can lose out on lucrative government contract work.

"We wouldn't be able to seek out new government business," says Josh Gordon, CFO of Minor Rubber. "Some of the business would have to be done through intermediaries and some we would lose altogether. It was the right time for us, and we embarked on the CMMC project."

Outside of that, Josh says that it was just the perfect time to adopt this new cybersecurity standard as well.

"One of the ways I sold it internally was by saying technology isn't going away," adds Gordon, "It's just going to become more of an issue you have to solve, so why wouldn't we just start to do this, and evaluate these processes and protections."

By chance, Minor Rubber just happened to get an email regarding one of NJMEP's no-cost webinars where Cybersecurity experts would be discussing the latest changes to CMMC.

"It was the right time—we don't do a ton of government business, but the nature of the business that we do with them we do have to be compliant."

Solution

"Once we started really looking into it, we just knew we didn't have the expertise internally," says Gordon, talking about implementing CMMC 2.0. "And the IT firm we used had the expertise to implement, but in terms of traversing the actual standard and ensuring the documentation was there, and when you had questions—we would've wasted so much time having to investigate each and every one ourselves," Gordon adds. "So that guidance is key to the whole process, and that is definitely where it would've been overwhelming, and when you looked at the project as a whole that was the overwhelming side of it."

Luckily, NJMEP's Cyber Experts have decades-worth of experience in navigating Cybersecurity compliance, and the collaboration between Minor Rubber and NJMEP began with a Cybersecurity Assessment, based on Cyber Maturity Model Certification (CMMC) 2.0, which incorporates FAR 52.204-21, NIST SP 800-171 rev 1 and NIST SP 800-172. NJMEP's expert resource assessed CMMC 2.0 Levels 1-2, which, once achieved, demonstrates good cyber hygiene and effective implementation of controls that meet the security requirements of FAR 52.204-21 and NIST SP 800-171.

Embarking on a CMMC project requires substantial



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commitment on the part of the service provider as well as the client, and it can prove to be a very time-consuming process. This journey required multiple steps to ensure Minor Rubber complied with the correct CMMC requirements.

The following steps were taken:

Cybersecurity Assessment – Based on the DFARS 252.204-7012 and the DoD-designed set of controls as prescribed in the NIST SP800-171 revision 2.

- NIST SP 800-171 Rev2 Gap Analysis and cross reference with CMMC Level 1-2
- Cybersecurity Monitoring and Detection Services – Monitoring and Detection Service based on the DFARS and DoD controls

Cybersecurity Security Operations Center Service (SOC) – Providing outsourced monitoring and detection to include real-time visibility of data reflecting the state of risk to security posture, the network, endpoints, cloud devices, and specific applications.

Each of the above points requires dozens of individual steps to complete. CMMC is not an easy certification to achieve without the right support and partner. However, with the right team, a manufacturer will be guided through every individual requirement to ensure compliance and audit readiness will be reached as quickly and efficiently as possible.

“As daunting as a task as it is to go through and put these plans in place,” says Gordon, “It’s beneficial for ANY organization, just the protections that you can put in place to keep yourselves protected at the digital level. It’s a no-brainer.”

Results

Minor Rubber completed its CMMC requirements and has fulfilled the Cybersecurity requirements to retain its current and secure future government contracts. Through the support of NJMEP and their Cybersecurity Resource, Minor Rubber was able to efficiently meet their contractual requirements and is thoroughly prepared for inspection and audit, safe in

the knowledge and guidance that was provided during their time working with NJMEP.

“One of the ways we’ve benefitted from [CMMC compliance] is we’ve actually been told by other subcontractors, either Lockheed or someone like that has actually come back to us and said, ‘Well, let us know when it’s done because we can’t buy from you until you’re compliant,’” says Gordon.

The following results reflect the impact Minor Rubber experienced while engaging with NJMEP over the past 12 months:

- ✓ **Retained sales: \$200,000**
- ✓ **Employee CREATION: 2**
- ✓ **Cost Savings: \$50,000**
- ✓ **New Plant Equipment Investments: \$1,500,00**

“We’re looking to expand the product lines that we have, we’re starting to do some value-added services,” says Gordon, talking about what’s next for Minor Rubber. “Part of the LEAN project we did with [NJMEP], was the revamp of our whole shipping and receiving area, and we were able to invest in new technology—a counting machine that bags and prints on the bags. So, we’re now offering that as a service to customers, offering this service to customers in a standardized fashion at minimal cost. We’re also starting to do some light assembly work as well.”

“Amazing, I mean it really was an amazing experience,” says Gordon. “I one hundred percent recommend NJMEP to other manufacturers. We want to be able to use these resources [like NJMEP] to educate ourselves so that we can be a better organization.”

Josh Gordon, CFO of Minor Rubber

Fidelity Industries Inc. Uses R&D Tax Credits To Expand Designs And Capabilities

Background

Located in Wayne, New Jersey, Fidelity Industries is the leading independent manufacturer of vinyl wallcoverings for the commercial hospitality and healthcare markets. The company began in the 1970s as a textile supplier and at that time wall covering only accounted for about 30% of their business—primarily selling high-end residential wallpaper. As the years went on, and popularity of stylistic and high-end wallpaper declined, Fidelity had to reevaluate where they were focusing their sales and marketing efforts. In the 1990s Fidelity got involved in commercial wallcoverings for healthcare and commercial properties and has been evolving and innovating ever since, standing at the forefront of innovation and design. Since then, they've grown to encompass over 350,000 square feet of production and warehousing space where they manufacture thousands of styles, textures, and patterns, offering many well-known brands and full flexibility to custom design wallcoverings to suit their customer's unique specifications. All of their products meet or exceed specifications for Type I and II accordance with ASTM E 84 standards and CE declaration of conformity, and they've also been a pioneer of "green" corporate philosophy, producing sustainable products in an environmentally responsible manner.

Nearly two decades ago, when much of the industry was slow to address the environmental impact of manufacturing, Fidelity made the decision to eliminate toxic, solvent-based inks from all products, instead opting to use inks that are free of ozone-depleting chemicals. They also implemented an aggressive recycling program that would heavily reduce the amount of waste produced, including scrap metal, paper and cardboard, as well as scrap vinyl and wallcovering trim. They've made substantial progress in the reduction of water and energy use in their manufacturing facilities, offices, and warehouse, as well as encouraging the use of better, more fuel-efficient vehicles by their employees wherever possible. Fidelity remains committed to their "Green Mission" and are continuously seeking new ways to be proactive in manufacturing wallcovering products with the least amount of

impact on the environment—without ever compromising on style or quality.

Challenge

NJMEP came into the picture about 10 years ago and originally worked with Fidelity Industries to help them get LEAN and optimize certain areas of their production and manufacturing processes, and since 2016 NJMEP has been helping them on exploring various cost-saving methods, particularly in reference to Research and Development (R&D). Although they're considered a fashion business, there's a lot more R&D involved than one would initially suspect. Since then, Fidelity has gotten involved with world-class fashion designers and can sometimes spend upwards of \$1 million on research and development annually—costs that with the proper guidance can qualify manufacturers like Fidelity Industries for R&D Tax Credits, allowing them to utilize their saving to further reinvest in their products and manufacturing procedures.

No doubt, Fidelity was going to consult with NJMEP's expert resource again to ensure they not only deployed their expertise and verified the proper R&D activities, but also because their services come with a built-in Audit Defense.

Solution

NJMEP's expert resource worked closely with Fidelity's team to establish a comprehensive list of qualified R&D activities and to determine all qualifying expenses (wages, supply expenses, and contract expenses) attributable to the identified research efforts. They then used these costs to calculate final figures relating to the IRS and State tax credits. Upon completion, the resource supplied Fidelity and their CPA a copy of the report in a preliminary form to use for filing the Federal and State tax returns.

The resource then conducted telephone interviews with senior technical staff to obtain information pertaining to the company's overall R&D process, including the manner



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of participation of key personnel and a discussion of the types of contemporaneous documentation maintained by the company as well as additional information pertaining to each of the qualified activities. The resource then provided a description of the company's overall R&D process, a Project Summary covering certain qualified activities, and Project Descriptions presenting the technical challenges and process of experimentation associated with the qualifying research activities.

The last step in the R&D Tax Credits process was to assemble and deliver a final R&D Tax Credit Study to Fidelity Industries. In total, the process may only take a few hours but has the potential to save tens of thousands of dollars in tax credits—allowing small to medium-sized manufacturers to deploy their resources elsewhere. According to Mr. Brook, “After a few years of doing the tax credits, a lot of it was simply copying information over to the forms. It was very smooth sailing—then they come for an hour to review the paperwork and I would say if the process took more than 2 hours per year, that would be a lot.”

In addition to providing all the financial and technical documentation necessary, the expert resource also provides an additional eight hours of audit defense support at no additional charge if the tax credit claim and/or supporting documentation is subjected to questions, review, or audit by either the IRS or the State authorities.

Results

The following results were cited as a direct result of engaging with NJMEP 12-18 months following the conclusion of the project outlined above.

“[R&D tax credits] help us in many ways to develop our product,” says Mr. Brook.

- ✓ **New & Retained Sales: Between \$20,000,000 and \$50,000,000**
- ✓ **New Jobs: 4**
- ✓ **Retained Jobs: 37**

Fidelity Industries has worked with NJMEP in the past, and programs like the R&D Tax Credits is a simple project that allows them to recoup certain expenses and stay agile in a regularly shifting market, bringing new and exciting products from world-class designers consistently to market. “We’re sent a very detailed report every year and from year-to-year there’s not much that changes that we need to keep up with. In our business we deal with high-end designers that want to try different things and the R&D Tax Credits gives you the opportunity to do business with people you might otherwise not be able to work with.”

Fidelity Industries is currently working with NJMEP’s expert resource on additional R&D Tax Credit projects, and when asked whether he’d recommend our services he said, “Absolutely, I think that most companies could use the type of assistance NJMEP offers.”

“They gave me the rules of the game, told me what has to be done. The first year we applied for R&D Tax Credits was very challenging, we had to learn everything from scratch. We had an interview with [NJMEP’s Expert Resource] and they sent me all the forms, went through our billing to see what we were billed for certain things, and make sure that was okay.”

Shmuel Brook, Vice President - Fidelity Industries Inc.

Jersey Shore Awning Co. Inc. Does More With Less

Background

"It is the ingenuity of the maker which makes his work stand out." Ora X. McClellan, Founder of Jersey Shore Awning

Jersey Shore Awning Co. got its start in 1947 when Ora X. McClellan and his wife Elysabeth founded the company and set about bringing premium brands, quality products, and unrivaled customer service to the Jersey Shore Community. For more than 73 years, Jersey Shore Awning Co. has been designing, fabricating, and installing awnings for homeowners and businesses throughout the Jersey Shore. The Jersey Shore Awning Co.'s multi-generational family business has been proudly serving the community with quality, hands-on service, and they've developed a reputation at the Jersey Shore that's recognizable and iconic. Their process for adding an awning to any residential or commercial property is easy and their team carefully handles all stages of the process, starting with design, fabrication, and culminating in the installation of premium custom awnings.

Wade McClellan, third generation CEO of Jersey Shore Awning Co., and his two brothers have been involved in the business as far back as he can remember, with Wade finally taking over in 2015 after the business restructured due to a family health situation that caused his father to step down as CEO after over three decades. "The same thing happened to both [my grandfather and my father], so that's why we started the LEAN Process—because you can't just work yourself to death, there has to be a smarter and more efficient way to run and grow the business," says Wade.

Challenge

After Wade's father had to step down as CEO due to his health—an event that mirrored when Wade's father took over in the 1980s from his grandfather and founder, Ora X. McClellan—Wade was forced to reevaluate the operation and look for areas of improvement that could increase efficiency to lessen the demand of the team and himself, without jeopardizing productivity and profits. Jersey Shore Awning needed to continue keeping up with demand, but not at the

cost of its team members and his family—and that's where the conversation for Kaizen Training began.

Wade detailed how the business functioned prior to taking over as CEO, saying, "We were doing a lot of stuff right, but you miss certain things—like with your family and kids—when you work like that and take the initiative to handle a lot of the day-to-day yourself and wear every hat, which a lot of small business owners end up doing, and they don't realize so much of their profits due to easily fixable mistakes and better processes."

Under Wade's leadership, Jersey Shore Awning took the first step toward exploring LEAN and he invested in new Customer Relationship Management (CRM) software—which provides integrated, data-driven software that helps businesses manage, track, and store information related to current and potential customers—and for about 6 months leading up to working with NJMEP, Jersey Shore Awning started to get a handle on a rough blueprint of how to optimize their operation. They weren't sure what next step to take and were encouraged by another 'MADE in New Jersey' manufacturer to connect with NJMEP.

Solution

Kaizen means improvement. Moreover, it means continuing improvement in working life. When applied to the workplace Kaizen means continuing improvement involving everyone—starting with production workers and continuing up through the chain of command.

Prior to engaging with NJMEP, Wade had no idea MEP's existed. He was looking at ways to maximize his ROI, rather than just hustling more and more at the expense of his health, time, and business. "I knew there were plenty of loose-ends here and there," he says, "And the NJMEP Kaizen training program gave us a bird's eye view [of our operation], rather than just hacking our way through the woods."

Wade details what it was like working with NJMEP's Kaizen



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training resource saying, “He came in, we did the LEAN/ Kaizen training with the production team—ended up working with the installer team later—and the buy-in from the team was really good from the get-go. NJMEP’s expert was able to breakthrough to the workers and make training accessible.”

The Kaizen Training Program included a total of 24 hours of LEAN training, broken up over the course of three days, totaling 8 hours of training per day. The first day began with assessing the current standing of the organization’s lean practices, and then provided a general overview of lean principles. Next, training was provided to staff on how to create a process map as well as delivering in-depth explanation of 5S and how to identify the correct metrics to monitor. Finally, visual management, flow, and Kanban training was delivered to the participating teams.

The following provides an overview of how the training was delivered:

Kaizen Training Program — 24 Hours Total

Phase I – Assessment and General Lean Overview (8 Hrs)

- Team Overview of Lean Practices and Procedures
- Process Mapping and Process flow

Phase II – Process Mapping Change Implementation and Metrics (8 Hrs)

- Training on Process Mapping Changes
- Overview of Lean 5S and Placing Metrics

Phase III – Implementation of Kaizen Training (8 Hrs)

- Visual Management, Flow, and Kanban

Results

The following results were cited as a direct result of engaging with NJMEP 12-18 months following the conclusion of the project outlined above:

- ✓ **New Sales: \$171, 512**
- ✓ **Cost Savings: \$53,000**
- ✓ **Savings On Investments: \$50,000**
- ✓ **New Products & Processes: \$20,000**

Wade and the Jersey Shore Awning Team set themselves apart by evolving their production methods to make their existing processes more streamlined, making better, more efficient use of their manpower—to do more with less.

“[NJMEP] came in, we did the LEAN/Kaizen training with the production team—ended up working with the installer team later—and the buy-in from the team was really good from the get-go. NJMEP’s expert was able to break through to the workers and make training accessible.”

Wade McClellan, third generation CEO - Jersey Shore Awning Co

The Last Of Its Kind: La Favorite Industries Inc. Continues To Pioneer



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Background

La Favorite Industries was formed in 1984 by Tom Mastin and Eric Hague to continue the Mastin family legacy that began in 1896 when rubber manufacturing was an expanding technology for all kinds of products. La Favorite was primarily engaged in the making of seals, packings, gaskets, expansion joints, and other fabricated rubber specialties, some of which are still made today. The company reached a crossroads in the 1980s as many of its products were starting to be made offshore and others were replaced by new technologies.

For Eric Hague, now President of La Favorite, his journey started in 1980 as a summer job working for the original owners, who were close family friends. In 1984 it was decided to close the original business. Tom and Eric formed a new venture that focused on some of the specialty products that had greater growth and profit potential. They were able to acquire the product lines and tooling that were needed to move forward, particularly the power plant condenser inlet expansion joints. These specialized parts are highly critical to the operation of most steam-driven power plants which include coal, gas, oil, and nuclear fueled plants. From this product line, a successful splicing and installation business was derived. In addition, La Favorite also molds and fabricates parts used on aircraft carriers, submarines, and all kinds of industrial applications.

Sadly, Tom passed away suddenly in 2014, elevating Eric to the company presidency.

In Eric Hague's words, "[La Favorite] is best known as a 'boutique manufacturer' with a focus on part production to exact operating specifications, rather than the high-volume sale of mass-produced standard size expansion joints. We are the go-to producer of expansion joints when conditions have changed to nonstandard specifications—due to system changes and upgrades."

La Favorite offers end-to-end customer support from manufacturing to on-site installation and splicing services—they're a full-service outfit. La Favorite Industry's expertise

in both the manufacturing, installation, and service of their products allows them to facilitate a wide range of customers' unique needs, 24 hours a day, 7 days a week, 365 days a year.

Challenge

La Favorite Industries has carved out a niche market in the manufacturing sector in that they're one of the only manufacturers left in the United States that produces these highly specialized components. With La Favorite playing this critical role in the energy market, the need to have the latest quality management system (QMS) is pivotal in providing clients with products and services that meet all their regulatory requirements. In Eric Hague's words, "The need for ISO came about when one of our legacy customers—which goes all the way back to the WWII era—conducted quality audits. The DOD [Department of Defense] no longer recognizing the outdated military quality system and wants contractors to get ISO certified—and that was the impetus for updating our system to meet ISO 9001:2015 standards and practices."

ISO 9001 is a general standard that will benefit any organization and doesn't apply to any single industry, business size, product, or service. Instead, ISO 9001: 2015 provides the outline and process to give any company that meets compliance the tools to improve their QMS, expand risk-based thinking, and ensure businesses have the practices and procedures in place to maintain these critical processes.

"For a small business, it's a huge undertaking," says Eric, "It was one of those things that we've been putting off for years—avoiding it like the plague. With ISO, we were scared of it to be honest. We're a small company, we only do seasonal work, and to sit down and do this, we just don't have the time."

In order to continue working with their legacy client—a major defense contractor—La Favorite needed to pursue certification in ISO 9001:2015 and get compliant. Eric approached NJMEP with the prospect of implementing an

ISO 9001:2015 QMS to ensure they met their client's (and the DOD's) regulatory requirements.

Solution

After speaking with NJMEP, which has facilitated many ISO Certification Projects in the past, NJMEP took an in-depth look at La Favorite's Operation, assessed where their needs were, and put together a comprehensive plan of action to help them achieve ISO certification. With the help of NJMEP's Account Manager and their Expert ISO Resource, their knowledge of ISO 2001: 2015 and all the resources provided by NJMEP, La Favorite Industries was able to receive their ISO certification over the course of six months. This allowed them to maintain their legacy contract and continue providing critical components to domestic energy suppliers.

The process for achieving ISO 9001: 2015 certification began with an analysis and assessment of La Favorite Industries' operation, then proceeded in three separate phases. During Phase One, NJMEP's Expert ISO Resource provided ISO Standard Management Overview Training, Quality Policy and Objectives Training, then rounded out in Process Reviews and Process Leadership Training—all of which took a total of 16 training hours. Next, Phase Two involved the implementation of training materials, which involved Document Control, Quality Manual Development, and Procedure Development Training—a total of 48 hours of training. Lastly, Phase Three involved Mentorship and Implementation of ISO 9001:2015 Standards and Practices, which began with ensuring Employee Understanding and Involvement and Internal Auditor Training, and concluded with a Management Review Workshop to ensure that La Favorite's Leadership would be able to carry these standards and practices forward with the day-to-day operations. In total,

training totaled 110 hours and at the end of the partnership with NJMEP, La Favorite was able to secure ISO 9001: 2015 Certification.

The ISO 9001: 2015 training and certification process can be time-consuming and complex without the proper experience or knowledge. Working with an experienced team of ISO specialists to identify, implement, and improve systems and protocols allowed La Favorite Industries to achieve ISO 9001:2015 certification, receive DOL assisted grants to help reduce the overall cost of training, and secure the contract with their legacy client.

Results

Upon completion of the six month ISO 9001:2015 training and certification contract with NJMEP, La Favorite Industries was able to pass the ISO Internal Audit, which reassured their client that through effective record keeping and implementing procedures aimed at improving processes, they could ensure the highest level of product quality and conformity.

"The audit was a breeze. I think we were expecting the worst, and to be honest—it wasn't that bad. [NJMEP's expert resource] prepared us a lot. We wouldn't have been able to do this without him."

The results below reflect the impact La Favorite Industries experienced while engaging with NJMEP:

- ✓ **Retained Sales: \$100,000**
- ✓ **New Sales: \$100,000**
- ✓ **New Jobs: 2**
- ✓ **Retained Jobs: 15**
- ✓ **New Investment In Workforce: \$25,000**

"Things are going pretty well here at La Favorite and we are pleased to have received our ISO certification. This never would have happened without the support of NJMEP and Stacy in particular."

Eric Hague, President - La Favorite

Catbridge Machinery Benefits from Qualified R & D Tax Credits

Background

Catbridge Machinery is a 'MADE in New Jersey' company that designs and manufactures high-performance web converting machinery. Founded in 1999, this Montville, NJ manufacturer provides slitter rewinders and web converting systems for countless industries to help customers succeed in today's dynamic global markets.

This industry leader utilizes decades of precision engineering and machine building experience to make top-quality converting machinery for their customers' specific needs. They take pride in their commitment to producing durable machines with faster cycle times, less set up, less waste, and fewer operator errors, giving customers better results.

A company like Catbridge Machinery is the perfect example of an organization that constantly innovates and one that should be able to benefit from this investment and effort.

Challenge

Manufacturing companies are eligible to apply for certain types of tax credits but oftentimes aren't aware of the credits or are unsure how to apply for them. New Jersey is an expensive state to do business. Every single business can benefit from tax incentives for the contributions to their industry, their local community, and the nation. Tax credits can reduce the amount of taxes companies owe to the federal or state governments or can increase a return, but are generally complex and require the combined expertise of engineering and financial professionals. Smaller manufacturers don't have the staff or the knowledge to understand what credits they may be entitled to receive.

Catbridge Machinery was looking to see if they could take advantage of specific R & D tax credits and leadership was referred to NJMEP by several of their peers. Catbridge's leadership consists of individuals with engineering backgrounds but they needed additional support to ensure they were in compliance and would receive the largest tax credit possible. They needed to enlist NJMEP's team of experts to see how they qualify for the tax year 2020 credits.

Solution

From positive experiences of working with NJMEP on past tax credits, Catbridge Machinery turned to NJMEP's account manager, Jeff Meister, for help once again. Catbridge has had lots of success with NJMEP's services in the past and has credited NJMEP with helping their business grow substantially from a \$4 million company to a \$34 million business since 2006. Jeff, who has had years of experience working with manufacturers attempting to qualify for tax credit, worked with NJMEP's R&D resource to review Catbridge's operations and discovered they qualified for the R&D Tax Credit TY2020.

Through examining each of Catbridge's research and development activities, NJMEP's team was able to identify which ones qualified. A list and documentation were compiled of all these qualified R&D activities to calculate the tax credits.

"We talked to [NJMEP] about helping initially with some hiring and then we found out about the tax credit. I'm an engineer. I'm not a finance guy, but I talked to some people and they're like, 'Oh you got to do the R&D tax credit because you guys do a ton of that stuff,' and then I really learned about it through our rep at NJMEP. There's always challenges to it," Catbridge Machinery Vice President, William Christman explained. "We're two engineers that ran the company. So we always like to take on the challenges, and that's also what's made the R&D tax credit a little bit more challenging for us, was being able to collect all our thoughts, all the data to back it up, and then compile all that information and get it all into one coherent analysis."

The following steps were taken:

1. A summary of the qualified research expenditures (QREs) incurred by Catbridge Machinery for the tax year
2. Calculations of Federal and State tax credits for the tax year in a format suitable for easily transferring the figures to the appropriate Federal and State tax forms
3. A table summarizing the qualifying research activities carried out by Catbridge Machinery during the tax year
4. A detailed description and sample contemporaneous



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documentation (if provided) pertaining to one or more representative project(s) to demonstrate the company's process of experimentation and how the research activities meet the IRS guidelines

5. A company profile containing general information about Catbridge Machinery, its products and/or manufacturing processes, and its need for carrying out research activities
6. A review of IRS criteria for identifying qualified research activities and expenditures, together with demonstrations as to how the company's activities and expenses satisfy these criteria
7. A description of Catbridge Machinery's overall approach to research and development, including how various personnel are involved in research activities and the types of contemporaneous documentation that are maintained

Each of the points above requires multiple individual steps and documentation to finish. Qualifying for R&D tax credits is long and complex without the right support and partner. Having an R&D professional with experience compile a report after identifying all the activities, documents, and familiarity in Federal and state tax credits ensures that Catbridge has everything needed to qualify.

"It's a lot of work and I really appreciate the engineers and the technical people that we work with, both on the accounting side and the technical side. I know everything, but just getting it out sometimes can be a challenge because there's so many things that I have to sort through in my head to get it all collectively out in a coherent way, and that seems to be one of the great skills that the NJMEP team has while working through the R&D tax credit process," Christman said.

Results

Catbridge was able to successfully meet all the R & D Tax Credit TY2020 requirements while saving time and the added stress of putting all the information together. This is how much they qualified in R & D tax credits:

- ✓ **Estimated Qualified Research Expenditures: \$2,900,187**
- ✓ **Estimated IRS Credit: \$218,830**
- ✓ **Estimated IRS Cash Benefit: \$172,875**

"We've always been satisfied. There were some changes that the original consultant that we worked with at NJMEP connected us with had changed. They were able to maintain some continuity for us which was nice because I think normally, had we been using them on our own without NJMEP as the intermediary, we may have just kind of lost a connection completely and had to go out somewhere else. It's nice to have that because NJMEP is familiar with our business, and they have a good idea on how to approach the analysis going into it. It makes the process very easy for us."

William Christman, Catbridge Machinery, Vice President

General Technical Services, LLC Overcomes the CMMC Challenge with NJMEP Expertise and Support

Background

General Technical Services, LLC (GTS) provides technical, management, and administrative support to US Government agencies, universities, and industry partners. Their staff of scientists and engineers have an incredible breadth of knowledge and experience to support the development of advanced RF technologies and sensors, advanced electro-optical technologies, directed energy weaponry, electronic materials and devices, and power sources. With a track record of success, they support clients through complex R&D program management, providing Engineers, Scientists and Technical Staff to DoD laboratories and technical centers which helps ensure the US remains a technical leader.

GTS leadership is not only innovative but incredibly proactive. Since they work closely with the Department of Defense, they are continuously monitoring the latest policies and regulations to ensure they remain compliant and provide the highest level of service. Cyber Security policies and regulations have now taken a very high profile role for companies under contract or seeking to do business with the Federal Government.

Challenge

Contract clauses and regulations are flowing down from the DoD that will impact every organization that handles Controlled Unclassified Information (CUI) on their contracts. Businesses that handle CUI will need to comply with the Cybersecurity Maturity Model Certification (CMMC) to qualify for DoD contracts as well as retain their current contracts.

GTS is a New Jersey business that is required to abide by CMMC regulations. Ensuring a facility is compliant with the correct CMMC control level requires a significant effort. The process requires a (NIST 800-171) self-assessment which results in a score that gets posted in the Suppliers Performance Risk System (SPRS) database. Contracting officers can now check this database prior to contract award or exercising an option year to ensure the self-assessment is complete, a score is posted and a plan of action and milestones is available to close any gaps found in the

self-assessment. It doesn't stop with the self-assessment. Contract Requests for Proposal will soon be requiring CMMC compliance to be considered for award. The CMMC level will depend on the contract and type of work. Bringing an organization up to CMMC compliance is a big task for a Firm that isn't in the Cyber Security business and really requires a credible, experienced partner to get there. The consultative support required to get a business in-line with all the separate controls required at any CMMC level can be costly. Many service providers will also not offer the comprehensive consultive support required to ensure the client succeeds. Although GTS' self-assessment resulted in a highly favorable score, they were facing the challenge of finding a partner to help close identified gaps and get positioned for a CMMC audit without overspending on this extraordinarily specific service.

Solution

Knowing CMMC enforcement was upon them, GTS began shopping around in search of a partner that could provide the support they required at a reasonable price. During the search, they found plenty of businesses that said they could help but the services they would provide were either incomplete or exorbitantly overpriced.

"I started searching for programs around the state and came across NJMEP. Once I made contact, I became educated about their relationship with NIST and the relationship they had with expert vendors, it was all the things we needed in addition to an incredibly fair rate!" Kurt Kovach, EVP of Strategy and Business Development, GTS explained.

A CMMC project requires substantial commitment on the part of the service provider as well as the client. This journey required multiple steps to ensure GTS complied with the correct CMMC requirements.

The following steps were taken:

1. Cybersecurity Assessment – Based on the DFARS



252.204-7012 and the DoD designed set of controls as prescribed in the NIST SP800-171 revision 2

2. NIST SP 800-171 Rev2 Gap Analysis and cross reference with CMMC V1.02 Level 1-3
3. Cybersecurity Monitoring and Detection Services – Monitoring and Detection Service based on the DFARS and DoD controls
4. Cybersecurity Security Operations Center Service (SOC) - Providing outsourced monitoring and detection to include real-time visibility of data reflecting the state of risk to security posture, the network, endpoints, cloud devices, and specific applications

Each of the above points requires dozens of individual steps to complete. CMMC is not an easy certification to achieve without the right support and partner. However, with the right team, a manufacturer will be guided through every individual requirement to ensure compliance and audit readiness will be reached as quickly and efficiently as possible.

Results

GTS completed its CMMC requirements and have fulfilled the Cybersecurity requirements to secure future contracts and have options on current contracts exercised. Through the support of NJMEP and their Cybersecurity service provider, GTS was able to quickly and efficiently meet their contractual requirements and stands ready for inspection and audit. Without reaching the correct CMMC level, they could be at risk of losing business. The below results reflect the impact GTS experienced while engaging with NJMEP over the past 12 months:

- ✓ **Retained Sales: Greater Than \$15,000,000**
- ✓ **Jobs Created: 1**
- ✓ **Employees Retained: 7**

Kinetics Industries Benefits from Their ISO 9001 Certification Journey

Background

Kinetics Industries Inc. has been in operation since 1939. This Trenton, NJ-based manufacturer is a leader in producing highly reliable and durable SCR regulated and diode line-regulated power rectifiers, industrial DC power supplies, fuseless bolted fault rated magnet rectifiers, flux forcing magnet rectifiers, crane rectifiers, DC substations, synchronous motor field and generator excitation systems, and power conversion solutions.

Their staff of world-diverse, engineering and technical staff design and manufactures industrial, commercial, utility, and military application power conversion products to the highest domestic and international standards. Dry type transformers, enclosure and panel fabrication, digital and analog electronic circuitry, and power semi-conductor assemblies are among Kinetics Industries' design and manufacturing capacities.

Kinetics Industries already delivers top quality products, but they were looking to expand their client base and require specific certifications to break into this new market.

Challenge

Countless manufacturers across the country were impacted because of the COVID pandemic. Like many manufacturers impacted at the height of the pandemic, Kinetics Industries' sales and work were affected due to the limitations enacted by the state and federal government. They were offered a substantial order from a client for work in Saudia Arabia during the pandemic when significant size orders were limited due to COVID restrictions, but the client required an ISO 9001: 2015-2021 certification.

Kinetics Industries needed help to be ISO 9001: 2015-2021 compliant and secure the contract. They were scrambling to find an ISO expert for help. Through a recommendation, they reached out to NJMEP for support. Kinetics Industries' workforce also needed additional training since ISO 9001 addresses certain aspects of quality management. They were running out of time to complete the contract and enlisted

NJMEP's expertise to help them receive ISO 9001:2015-2021 certification and to upskill their staff to ensure continued compliance.

"Because we had already made a substantial engineering investment, we had to get this done. It was just a win-win all the way around. The project is immediately addressing the challenges with the workforce. Then you throw in ISO which is all about engagement and commitment, attention to detail, following rules," Kinetics Industries Inc. President, Keith Secrest explained. "We knew nothing else about ISO 9001 so we needed a consultant and we needed to get ourselves organized. Bringing someone in that was very knowledgeable and was able to get us up to the point where we could secure the certification in a quick period of time because our customer was asking us for a cert right away was key."

Solution

After speaking with NJMEP at the recommendation of the Mercer County Workforce Development Board, NJMEP created a plan to help Kinetics Industries achieve ISO certification. With their NJMEP account manager's help, their knowledge of ISO 2001: 2015-2021, and all the resources NJMEP provides, Kinetics Industries was able to receive their ISO certification quickly.

Through their account manager's suggestion, it was recommended the project be split into two phases: ISO virtual training, to save travel time and as a direct result of the state's pandemic guidelines, and additional training to ensure they received certification in the time needed. This helped Kinetic Industries secure the required training to be certified.

"Having the resources and the expedited process, that was just huge. Here you are given a project and this black cloud of COVID is hanging over us. I don't know how we would have really done it without the help of New Jersey MEP. It brought so many resources to bear in a very tumultuous time," Secrest stated. "It made us look at our process. It empowered me as a manager, because now I had a program and a process and



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a documentation of the structure that we could refer to. It was a good force in the long run, even if we don't need it for customers. We need it for ourselves."

The following steps were taken:

Phase I - Virtual Training-ISO 9001: 2015:

- Module 1: Awareness Session/Overview(4 Hrs)
- Module 2: Gap Analysis (4 Hrs)
- Module 3: Identification of key business processes aligned with the business model of the company (4 hrs)
- Module 4: Quality Policy/Quality Objectives(4 hrs)
- Module 5: Risk Analysis/Assessments (4 hrs)

Phase II - Additional ISO Training 36 Hours

- Management Overview 6.0 Hours
- Documentation Review and Development 8.0 Hours
- Risks and Opportunities 6.0 Hours
- Internal Auditor Training and Audit Mentoring 10.0 Hours
- Assessment Preparation 6.0 Hours

Each of these phases above requires multiple individual steps and documentation to complete. The ISO 9001: 2015-2021 training and certification process can be long and complex without a fully knowledgeable partner. Working with an experienced team of ISO specialists to identify their needs

for improvement allowed Kinetic Industries to be certified, receive CARES funding, and secure a massive contract with their client.

Secrest explained, "Half of the problem is really identifying the problem. Is the problem just a micro or is it macro? I think that's how NJMEP really helps you to find out you're not alone!"

Results

Kinetics Industries secured their contract with the client after completing ISO 9001:2015-2021 training and receiving certification from the certifying body and accreditation firm, SAI Global. NJMEP offered and executed an expedition action plan; this, combined with financial assistance via a grant, worked successfully for both Kinetics and their customer. The results below reflect the impact Kinetics Industries experienced while engaging with NJMEP:

- ✓ **Retained Sales: \$100,000**
- ✓ **New Sales: \$20,000**
- ✓ **New Jobs: 2**
- ✓ **Retained Jobs: 2**
- ✓ **New Investment in Workforce: \$10,000**

"ISO helped because it enabled us to keep people focused on a project and a thing that was really on a workplace floor. It tremendously helped our quality! It made everything very visible. Yes (I'd recommend NJMEP to other manufacturers) because you're not reinventing the wheel. This is something you guys do day-in and day-out. You have the resources to be able to go and get it done. You go through New Jersey MEP, they looked at resources that are out there through grants or funding. That's part of their mission"

Keith Secrest, Kinetics Industries Inc. President

Falstrom Company Committed to Continuous Improvement and Partners with NJMEP

Background

Falstrom Company is a 'MADE in New Jersey' company that primarily serves large and second-tier US defense and aerospace manufacturers by producing custom, battle-proven, large enclosures precision machined parts and electronic assemblies for avionics to mission-critical shipboard systems and platforms. Falstrom was founded in 1870 by Gustav Falstrom, an immigrant from Sweden, as a supplier of fabricated metal products including skylights, metal roofing, cornices, leaders, and gutters. In its 152 years of business, Falstrom has become a leader in the US DoD supply chain building a reputation for its reliable electronic enclosures, electromechanical assemblies, precision parts and integrated systems. Headquartered in Passaic, NJ, this local manufacturer has received many accolades and awards including being named NJMEP's "Manufacturer of the Year", Lockheed Martin's "Small Business Subcontractor of the Year", Northrop Grumman's "Preferred Supplier", Rockwell International's "Subcontractor of the Year" and receiving a letter of appreciation from DRS. They proudly provide their customers and the warfighter with the highest reliability solutions for electronic enclosures and electromechanical assemblies for a range of systems that help complete missions safely.

Challenge

Manufacturers nation-wide are experiencing a wide range of challenges that are impacting their ability to grow. Cybersecurity Renewal SOC 2019 and 2020 and employee development and training, particularly with lean manufacturing principles and technical skills were top priorities for this specific New Jersey business. They're federally mandated as a defense manufacturer to be compliant with the new CMMC regulations. Organizations are required to manage cyber security threats and apply effective processes and controls in place to respond and recover from breaches.

The biggest challenges smaller manufacturers like Falstrom face are having limited resources and a staff to address these

needs to train talent and at the same time ensure they're compliant with the latest rules and regulations like CMMC. As a smaller company, they needed support. They enlisted NJMEP's experts to help them address workforce challenges, earn the necessary certifications and become compliant on SOC 2019 and 2020 by the deadline dates in order to maintain their defense contracts.

With a small staff and fewer resources, it's incredibly challenging for Falstrom to be compliant with all the latest CMMC certifications required in the industry, keep their team trained, and their business continuously improving.

Solution

Falstrom reached out to their NJMEP Account Manager, Stacy Cooke for assistance on all their specific needs including certification and upskilling. They've had plenty of success with NJMEP's services in the past, so they knew exactly how to get started enlisting the MEP's help. Stacy, who has had decades of experience working with DoD manufacturers, discussed the current business environment, reviewed Falstrom's operations and what their needs were, and worked to uncover ways they could address those specific needs.

A comprehensive solution was developed. Falstrom would work with NJMEP's experts to become CMMC compliant, work with Lean trainers to create a customized curriculum. Thus, ensuring that Falstrom would be compliant with the latest DoD rules and requirements.

The following steps were taken:

Cyber Security Renewal Managed SOC 2019 and 2020 – 24x7 Network Security Monitoring/Intrusion Detection, Annual Vulnerability Scan, Customized Threat Intelligence and SIEM

Lean and Technical Skills Training – Training for Blueprint Reading, Metrology GD&T and Advanced, Shop Mathematics and Fixturing and Tooling

Compliance Assistance - New NIST 800-171 Cybersecurity requirements including remediation

Each of the points above requires multiple individual steps to finish. CMMC isn't an easy certification to



achieve without the right support and partner. Lean is an easy concept to understand but takes buy-in and effective training to ensure it carries once the trainers and consultants are gone. However, with the right team, a manufacturer will be given every single tool they need in order to thrive.

"I think that the consultative way in which NJMEP works with clients like Falstrom Company really helps tailor the solution in a way that's really unique for each company and really benefits the company," Falstrom President & CEO, Clifford Lindholm explained.

Results

Falstrom was able to successfully meet all the CMMC requirements, provide their team with all the knowledge needed to apply lean manufacturing principles, as well as receive the technical training to remain compliant with the new DoD rules.

- ✓ **Retained Sales: \$12,000,000**
- ✓ **Increase Sales: \$500,000**
- ✓ **Cost Savings: \$800,000**
- ✓ **Jobs Created: 2**
- ✓ **Employees Retained: 95**

"If you're a manufacturer looking to improve your social media presence but haven't decided which service company to use, I recommend contacting NJMEP. They vet the service provider and supervise the project to make sure goals have been met."

Clifford Lindholm, Falstrom President & CEO

Century Service Affiliates, Inc. Experiences Growth Using R&D Tax Credits

Background

Century Service Affiliates, Inc. is a family-owned business that specializes in providing custom foam and case solutions for every type of need imaginable. This Paterson, NJ-based custom foam fabricator has been calling New Jersey home for over 30 years. Century Service Affiliates manufactures all types of carry cases including: blow molded plastic cases, injection molded cases, all-weather cases, and shipping cases. They are fully staffed and manufacture their products completely in-house at their 39,000 square foot New Jersey facility.

Their Pro-Design team works with customers to create the perfect custom case solution for their items by creating and producing custom foam inserts or a case with precut foam. Their cases come from all major manufacturers, including Pelican, Doro, SKB, Seahorse, Nanuk, Flambeau, and HPRC.

Challenge

Small and medium-sized manufacturers can be eligible for R&D Tax Credits, but need the right kind of expertise to navigate through all the documentation. NJMEP account manager Stacy Cooke informed Century Service Affiliates they could apply for the R&D Tax Credit for Tax Year 2020.

Century Service Affiliates looked into the tax credits and noticed their work qualifies as R&D. This tax credit was particularly important because they were conducting R&D work on their printing foam and print builder at the height of the COVID pandemic. They needed support from an expert to identify ways to optimize their R&D tax credit. Without the tax credit, they couldn't stay competitive or purchase the machinery needed to produce their new products.

"We looked into it. We saw that what we're doing is R&D and we would be eligible for the credits," explained Century Service Affiliates Inc. Owner & President, Steve Holand. "We're changing things, doing things, and 2020 was specifically the year that we started our research and development on our printing foam and our print builder."

Solution

Century Service Affiliates enlisted NJMEP to help them after prior positive experiences with earning the R&D tax credits dating back to 2018. Through their past project successes, and after being informed of the tax credit for 2020, they enlisted Stacy's help. Stacy, who has years of experience working with businesses to qualify for tax credits, walked Century Service's team through all the steps.

She helped ensure they understood the tax credit process, and provided the information needed to move forward. Through examination, verification, and staff interviews of all of Century Service Affiliates' projects and activities for 2020, the team put together documentation that ensured Century Service Affiliates qualified for the credits.

"Stacy put us in the right direction. She was there the whole time, holding our hand and making sure that we understood it and making sure that we got the most out of it. We worked hand in hand with Stacy and she helped us and provided us the information that we needed to move forward," stated Holand.

The following steps were taken:

1. Century Service Affiliates enlisted NJMEP to help them after prior positive experiences with earning the R&D tax credits, dating back to 2018. Through their past project successes and after being informed of the tax credit for 2020, they enlisted Stacy's help. Stacy, who has years of experience working with businesses to qualify for tax credits, walked Century Services' team through all the steps.
2. She helped ensure they understood the tax credit process, and provided the information needed to move forward. Through examination, verification, and staff interviews of all of Century Service Affiliates' projects and activities for 2020, the team put together documentation that ensured Century Service Affiliates qualified for the credits.



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3. "Stacy put us in the right direction. She was there the whole time, holding our hand and making sure that we understood it and making sure that we got the most out of it. We worked hand in hand with Stacy and she helped us and provided us the information that we needed to move forward," stated Holand.
4. Each of the points above requires multiple individual steps and documentation to finish. Without the right support and partner, qualifying for R&D tax credits is a long and complex process. Having an R&D professional with experience put together a report after identifying all the activities, documents, and familiarity in Federal and state tax credits ensures Catbridge has everything needed to qualify.

Results

Century Service Affiliates was able to meet all the R&D Tax Credit TY 2020 requirements while saving time and the extra work of putting all the information together. They expressed interest in continuing NJMEP's service for the next tax credit. Below is the reported impact from engaging with NJMEP:

- ✓ **Increased Sales: \$150,000**
- ✓ **Retained Sales: \$200,000**
- ✓ **Employees Retained: 5**
- ✓ **Jobs Created: 2**
- ✓ **Cost Savings: \$50,000**

"We're doing R&D to fill the business and be competitive. That's always something that we did. We just didn't know there was help available for it to absolutely take that and move it up to the next level because with the tax credits it allows us to reclaim funds that we were paying for the R&D and use it in other places in our business. NJMEP held our hands the whole time. We did have to send information to them about what research and development we've done, but basically, they handled all the rest of it. Really, it was very easy! "

Steve Holand, Century Service Affiliates, Inc. Owner & President

Local New Jersey Manufacturer Works with NJMEP to Utilize State Incentive that Rewards R&D

Background

Founded by Emil Saporito, Joseph Zisa, and Kenneth Warnet, Superior Glass & Metal, LLC has been directly involved in the fabrication and construction of commercial building aluminum windows and doors since 2005. Together they bring over 30 years of experience in the installation of Storefront, Curtainwall Framing, Glass and Glazing. This 'MADE in New Jersey' manufacturing business is known for its quality, attention to detail, and ability to complete projects on time. Their experience allows the organization to take on complex projects and provide solutions to any of the challenges that are common when architectural projects begin to take shape. Based in Wyckoff, New Jersey, they can custom fabricate window jambs and sills in a variety of metals depending on the architectural drawings.

Superior Glass & Metal, LLC and its leadership's experience allow the 'MADE in New Jersey' manufacturer to continuously improve and innovate their processes to remain ahead of the competition.

Challenge

New Jersey is an expensive state to conduct business. Taxes always weigh heavily on any operation, but this is especially true when it comes to a small manufacturing shop in northern New Jersey. While moving past the COVID-19 pandemic, Superior Glass & Metal, LLC was looking for any relief after nearly 2 years of disruptions. An influx of capital would allow this 'MADE in New Jersey' manufacturing shop to move forward without any additional pressure from an uncertain year as demand for commercial properties and construction began to speed up.

Many manufacturers often overlook certain programs and incentives because they underestimate their work. New Jersey gives manufacturing businesses access to unique ways to offset costs and provides ways to create a more manageable business environment.

Solution

Superior Glass & Metal, LLC was searching for ways to improve their business. They were open to learning about new options that may have not been previously explored. After the Controller participated in NJMEP's annual State-of-the-State of Manufacturing event they were connected with their local Account Manager. Ryan Sheehy, their local Account Manager conducted a General Business survey to learn more about their manufacturing operation and see where NJMEP could add value.

After developing an understanding of their needs, current operation, and workforce, it was clear a long-term relationship and growth plan were required but immediate support could be provided. This manufacturing operation was in the ideal position to benefit from R&D Tax Credits. They didn't notice the amount of R&D they were practicing daily. Many businesses imagine R&D only takes place when scientists in cleanrooms are involved. However, manufacturers of all kinds are constantly improving their specific processes in their respective industries. This 'MADE in New Jersey' manufacturing business has decades of experience in the Glass and Glazing industry. All this experience, years of trial and error, and their diverse backgrounds culminated into an incredibly efficient and effective business thanks to the R&D that was taking place

NJMEP and its resource provided support and assistance every step of the way to ensure compliance while also capturing all qualified R&D activities



Results

Superior Glass & Metal, LLC was successfully able to secure an impactful R&D Tax Credit. These funds were able to be reinvested into their business, and its people. The following results were provided by the 'MADE in New Jersey' manufacturer through an independent third-party survey from the company's engagement with NJMEP over a 12-month period.

- ✓ **Increased Sales: \$1,500,000**
- ✓ **Retained Sales: \$3,000,000**
- ✓ **Employee Retention: 15**
- ✓ **Cost Savings Amount: \$550,000**

"We started out by getting involved through their State-of-the-State event which caught my interest because it gave me the chance to voice my concerns with local legislators, but then I had a chance to learn how they could help my business. I'm an accountant but these R&D Tax Credits required a real understanding of engineering to document. Working with NJMEP and their experts was necessary for our local manufacturing business"

Michelle Womack, Controller, Superior Glass & Metal, LLC

Case Medical, Inc. Complies with EU's New MDR 2017/745 Standards Faster, and More Efficiently by Taking Advantage of NJMEP's Expertise

Background

Case Medical, Inc. is a 'MADE in New Jersey' manufacturer that produces and offers high-quality, cost-effective instrument processing products and services. They were originally founded in 1992 as a supplier of custom graphics trays to medical device manufacturers. In their 30 years of business, they've become a leader in the medical device space and are best known for the DIN-sized, SteriTite(R) universal sealed container and modular customizable MediTray(R) inserts that are regarded as the gold standard in instrument protection and organization. This local manufacturer prides itself on providing customers with products of the highest level of safety and effectiveness, using a universal design providing long-term cost savings and a high return on investment.

Challenge

In May of 2017, the European Union adopted Medical Device Regulations MDR 2017/745 to replace both Medical Device Directive MDD 93/42/EEC and Active Implantable Medical Device Directive AIMDD 90/385/EEC. Issues with specific medical devices in the European Union forced them to add devices that were not regulated under the original directives. All medical device manufacturers and suppliers had 3 years to implement the changes required under the new regulation. There is no grandfather clause. This is a mandatory regulation for these businesses.

The challenge for manufacturers like Case Medical is when reviewing the language of the regulations, it is not necessarily written for their business. Understanding what exactly a manufacturer must do to comply is a full-time job and requires a working knowledge of exactly what auditors review during the audit process.

Even though Case Medical is compliant with all the FDA regulations, the EU MDR requires manufacturers to have even more documentation in place to meet these standards. It's incredibly time-consuming to document every step of the manufacturing process, especially for a business without experts on staff with a working knowledge of EU MDR.

Solution

Case Medical reached out to their NJMEP Account Manager, Peter Russo for assistance in complying with these new regulations. They needed an expert that understands all the nuances that are involved in meeting these high standards and to find out exactly where the gaps were in their current documentation and quality process. Peter Russo was a former auditor and has done extensive research into the new EU regulations to provide manufacturers with a more concise and easier to understand process which helps ensure organizations would become compliant as efficiently and effectively as possible.

The first step to help Case Medical meet these new standards was to review the current QMS system and compare it to MDR 2017/745 compliance and audit current documentation and records. Peter Russo helped assess the MDR 2017/745 technical requirements and current Post Market Surveillance (PMS) vs. MDR CE Mark Classification Review.

Next, Peter Russo provided the results of the Gap Analysis. The NJMEP team outlined all non-conformances to the new MDR and provided options to rectify these issues. Additional training was needed to help Case Medical meet its goals of being MDR 2017/745 compliant. Case Medical then went on to take advantage of the CARES Act funding to help offset that future training.



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Results

Case Medical was able to successfully meet the new European standards for medical devices. Through their engagement with NJMEP's Subject Matter Expert, they were able to achieve compliance in a much more efficient and effective manner.

Throughout their time working with NJMEP, Case Medical cited the following results during their latest NIST Survey:

- ✓ **Retained sales: \$200,000**
- ✓ **Employee CREATION: 2**
- ✓ **Cost Savings: \$50,000**
- ✓ **New Plant Equipment Investments: \$1,500,00**

High-Level Lean Training At OFS Changes Employee Mindsets To Think Lean

Background

OFS is a leading provider of innovative optical fiber solutions, focusing on the design, manufacturing, and delivery of fiber optic products. With a rich history rooted in Bell Labs' pioneering work, OFS offers cutting-edge solutions for telecommunications, medical, industrial, and defense applications. The company emphasizes quality, performance, and sustainability, leveraging advanced technologies to meet diverse customer needs worldwide. By maintaining a commitment to excellence and continuous improvement, OFS aims to drive progress in optical communications and beyond.

Challenge

Cari August, Manufacturing Manager for OFS, said the idea behind refreshing LEAN training arose from a need for a refresher following the COVID-19 pandemic, where she says she felt like a new employee even though she'd been working at OFS for over two years. She wanted to refresh not only the production teams, but also management personnel so that all employee mindsets were aligned and thinking LEAN. On top of that, the company was experiencing a rapid uptick in production volumes.

"We had a particular production area where the volumes were higher than we expected sooner than we expected," says August, "So we were looking to address some capacity constraints."

August, along with her Production Manager Maria Fernandez and HR Manager Molly Griffith, set out to work with their NJMEP Account Manager to find ways where they could have the biggest impact on aligning their production and management teams, while also addressing their new capacity constraints. Having completed successful LEAN training in the past, it was decided that a high-level LEAN overview is exactly what OFS needed to tackle its challenges.

Solution

NJMEP's expert resource provided a high-level review of LEAN Enterprise Principles through consultation, facilitation,

and training. The project aimed to reinforce LEAN concepts among OFS supervisors and engineers via onsite sessions involving teaching and hands-on application. The proposal included a LEAN overview and a targeted Plan-Do-Check-Act (PDCA) event—an iterative process integral to LEAN management, focusing on continuous improvement of products, people, and services through planning, executing, checking results, and implementing process improvements. The project was estimated to require 10 hours of work. The high-level LEAN overview project was conducted in two sessions over two days onsite at OFS, combining teaching and hands-on application. Sessions were scheduled at mutually convenient times, minimizing operational impact. A single point-of-contact at OFS coordinated efforts, and key personnel were involved as needed.

NJMEP's resource prepared and conducted two one-day sessions to implement process improvements. Day one included a LEAN overview with a high-level review of major LEAN tools and methods through lectures and discussions. Targeted operations for PDCA demonstrations were identified. The implementation phase included a targeted PDCA event to apply proposed improvements, providing hands-on training and reinforcing the overview training. The goal was for OFS staff to understand the need for these improvements and how they would enhance company operations, making work more enjoyable and fulfilling by eliminating chaos and waste.

Results

One of the most notable results from the recent High-Level LEAN Overview project is a change in the mentality and behavior of technicians, says Maria Fernandez, Production Supervisor. "What I see and I like best is that [the project] has also promoted teamwork," adds Fernandez.

As with most LEAN training, the work doesn't stop at the end of a successful LEAN project. LEAN thinking is all about continuous improvement, and that's something Cari August and the OFS team have certainly taken to heart.



**SUCCESS STORY:
OPERATIONAL
EXCELLENCE**

The following results were cited as a direct result of engaging with NJMEP 12-18 months following the conclusion of the project outlined above.

- ✓ **New Sales: \$200,000**
- ✓ **Jobs Retained: 2**
- ✓ **Cost Savings: \$50,000**

Molly Griffith, HR Manager at OFS, says that engaging with NJMEP has helped take some of the burden off the shoulders of a small company like OFS. "With NJMEP being as proactive as they are with reaching out and creating connections for us and offering services, it's just taken a lot of that admin work out of trying to find resources manually on our own."

"NJMEP's support has helped us to engage with New Jersey employee upskill grant opportunities that would otherwise be too cumbersome for us to take advantage of," says August. "I would definitely recommend companies investigate NJMEP and what they can offer."

Cari August, Manufacturing Manager for OFS

ZAGO Manufacturing Company Reduces Inventory to Boost the Bottom Line



**SUCCESS STORY:
OPERATIONAL
EXCELLENCE**

Background

ZAGO Manufacturing Company is an award-winning family-owned business manufacturing high-tech sealing fasteners and switch boots. Their story began over 27 years ago at the New Jersey Institute of Technology Enterprise Development Center Small Business Incubator. From there, ZAGO Manufacturing grew into a full-fledged global manufacturing company operating from a 100-year old refurbished factory located in Newark, New Jersey.

Challenge

Inventory is difficult to manage. Having too much is a costly burden. Too much product sitting on shelves is wasted money. ZAGO Manufacturing was working with a tremendous amount of inventory generated from over-production of custom-manufactured parts. This inventory was taking up space, time, and putting stress on employees. Much of it became almost impossible to find and it was clogging up their system.

To first identify the challenge, ZAGO Manufacturing worked closely with their NJMEP Account Manager. Together they found that the company wanted to address their packed warehouse and uncover where else they could add value to their business.

Solution

NJMEP and ZAGO agreed that an Inventory Management and Value Stream Mapping project would provide the highest possible return on their investment.

To address the inventory challenge, the first step was to implement a new inventory management system. The Value Stream Mapping project helped identify non-value-added waste in the entire workflow. Jackie Luciano, Vice President, and Gail Friedberg, CEO of ZAGO worked together with NJMEP's consultant to identify the system that would make the most sense for their operation. Leadership guided the implementation of an inventory management system by following the guidance of NJMEP's resource. The next step was to determine what to keep, what inventory to dispose of and how to keep better track of it all. ZAGO Manufacturing now has a more efficient and effective way to process and manage inventory moving forward.

Results

ZAGO Manufacturing has experienced the following benefits from their work with NJMEP in 2019.

- ✓ **Retained Sales: \$200,000**
- ✓ **Employee Retention: 2**
- ✓ **Employee Creation: 1**
- ✓ **Cost Savings: \$150,000**
- ✓ **Saving Investments: \$50,000**

"Sometimes you need someone from the outside to point out [an inefficiency] to make a major change in the way you operate. I would recommend NJMEP to any manufacturer. Some of the best companies I know have worked with NJMEP and have become even better."

Gail Friedberg, CEO, ZAGO Manufacturing

Zero Surge Doubles Down on Digital Marketing to Expand Business

Background

Zero Surge, located in Frenchtown, New Jersey began in 1989 when J. Rudy Harford was presented with the challenge of reinventing the surge suppressor. By closely examining failed surge suppressors Harford was inspired to improve the classic design. He developed and patented a series-mode surge suppression circuit that protects against the worst surges and he only continued to improve his design. Harford never stopped improving and Zero Surge's entire product line incorporates his revolutionary surge suppression technologies that are more reliable and more durable than other technologies on the market today.

Now led by Jim Minadeo, Zero Surge continues to develop additional models for emerging applications and improve the customer experience. The company is dedicated to using only US sourced components from US vendors. Currently, they have 7 employees and are constantly innovating to drive growth.

Challenge

Surge suppressors are used in a plethora of industries spanning from restaurants and IT support to military and manufacturing and are critical in large-scale infrastructure projects as well. Zero Surge has a massive client pool but cutting through the noise is always difficult. All the time and effort spent upgrading their infrastructure while continuing to service key accounts and new business meant there was little time to spend on their digital presence. Their website was aging, and they weren't taking advantage of social media to strengthen their brand recognition and generate leads.

Since there are so many kinds of customers it creates a challenge when it comes to creating a focused marketing message. Zero Surge is a business made up of electronic and engineering experts. The individual responsible for marketing wears multiple hats and strictly focusing on digital and traditional corporate communications is not an option.

The combination of a large customer base and a product focused business meant that Zero Surge was having

trouble leveraging marketing to generate sales and growth opportunities.

Solution

Zero Surge has engaged heavily with NJMEP events, open enrollment courses, and is active in the manufacturing community. Their product is unique and their needs are specialized. This history of engagement and trust made it easy for Zero Surge to reach out to NJMEP and talk through some of their pain points.

An initial consultation was conducted between Zero Surge leadership and their NJMEP Account Manager. NJMEP has visited the facility a few times over the course of 6 years, but it is critical the complimentary business assessment is as up-to-date as possible before exploring possible solutions to any business challenge. The Account Manager was introduced to the manufacturing process, toured the facility, and sat down for a lengthy discussion to ensure they understood all of Zero Surge's challenges. It was confirmed that exploring digital marketing could be an ideal way to offset COVID-19 disruptions in the short term while also helping their business grow and expand in the long term.

The next step was to bring in the Digital Marketing resource alongside the NJMEP Account Manager to meet with leadership. The Digital Marketing resource was introduced to Zero Surge and a thorough examination of Zero Surge's current marketing materials and digital presence was conducted. Once all the current materials were reviewed, an extensive digital plan was presented to Zero Surge.

NJMEP and Zero Surge is collaborating in the following areas:

Social Media activity and engagement

NJMEP is training Zero Surge on social media best practices. Social Media posts are developed weekly and the Digital Marketing resource works with the Zero Surge team to refine the message.



SUCCESS STORY: INNOVATION & GROWTH

Original content development in the form of blog posts

Blog Posts and original web content is being produced to enhance the manufacturer's digital presence. The client is being educated on best posting practices and the value of original content to their digital marketing efforts.

Website Design

A new home page is being developed to increase lead capture.

An updated theme is being used to make the site more functional and appealing. New photos and graphics are being added to clarify the applications and audience reach.

Promotional Video Development

6 promotional videos are being produced to serve as content for social media and featured website content.

Amazon Content Updates

NJMEP is assisting Zero Surge in updating and improving its brand content for Amazon while educating Zero Surge on the best eCommerce product description practices.

Results

Manufacturers that can effectively deliver their message in the digital space can increase their brand presence and bottom line. Zero Surge took the initiative to partner with NJMEP and improve its digital marketing efforts through a combination of training and consultative programs.

Zero Surge cited the following impacts from working with NJMEP over the past 12 months:

- ✓ **Increased Sales: \$90,000**
- ✓ **Cost Savings: \$10,000**
- ✓ **Employees Retained: 7**

MAC Products Achieves Robust Growth Through Process Enhancements Facilitated by NJMEP

Background

In 1968, MAC Products Inc. was founded by Ed Gollob, who started with just two employees. Over the years, this family-owned and operated manufacturing company has flourished under three generations of leadership, now boasting over 100 employees and a 4.5-acre fully integrated complex in South Kearny. Specializing in made-to-order manufacturing services and products, MAC serves diverse clients, from electrical utilities to mass-transit entities. With a motto of 'We Don't Do Easy,' MAC emphasizes a personal and honest approach to business, a tradition implemented by Gollob and upheld for over 50 years. Having witnessed multiple technological shifts in manufacturing, MAC has consistently been a pioneer of innovation. From initial pencil and paper drawings, the company has transformed into one of the most technologically advanced operations in New Jersey Manufacturing.

The relationship between MAC Products and NJMEP goes back nearly a decade, beginning with some LEAN training and evolving into a fruitful partnership that resulted in some great no cost opportunities like joining the 'MADE in NJ' program and being featured in the 'WE MADE IT' video series. The most recent engagement with NJMEP stemmed from a need to improve certain processes that were impacting MAC's business.

"We continually kept engaged with the MEP over the years," says Eddie Russnow, President of MAC. "With this latest grant that we got from the state for training, it's all been based around the process improvement and process mapping, and that's really been our core focus now as we realize that the things that are holding us back are the processes, and that stemmed from a deep dive that we did with [NJMEP's Resource]."

Challenge

With critical resources made available through the DoL training grant program, Eddie and his account manager set about discerning which area of the business was most critical

to improving operations. "What we're recognizing is our ability to get the right data that we need to manage the business is difficult to find in all the disparate areas of the company where the data resides," says Russnow. "A lot of the things that we're experiencing with—we'll call them headaches—with each other, is not because of each other, but it's because of the way we're trying to find data, and how the data all connects," he adds.

Eddie, through his collaboration with NJMEP, recognized that the processes implemented over the years became ineffective and required thorough reevaluation and enhancement.

"In order to get our system to work the way it was designed to work, first we have to figure out what the proper processes are," says Russnow, "If we didn't go through this process, I don't think we would have been able to put a strategic plan in place to try to grow the company."

When asked if he thought it was an outside perspective that gave him more insight into what was causing the tensions with their processes he responded: "There's no question," says Russnow, "We were clouded in our judgment by the seven words of a dying company—'That's the way we've always done it.'"

"It's the fear of knowing that you don't know everything, and then what's it going to take and therefore what's it going to cost to fix it to make it right," says Russnow. "And when you've headed down this road for so long, unless you're strong enough to admit that we don't know everything, if we want to really move the needle, this is what we have to do and we're going to have to just roll our sleeves up and we're just going to have to bite the bullet and do what we have to do, because otherwise we're just going to get the same results we've always gotten."

Solution

In the discovery phase, the operational framework underwent a thorough evaluation to identify inefficiencies and process gaps, with the overarching goal of enhancing business



SUCCESS STORY: INNOVATION & GROWTH

performance. This involved a comprehensive review of how various operational environments adapted to the ERP System, and pinpointing adoption gaps that could be addressed for improvement.

Following the discovery phase, an Operational Effectiveness Team, comprising diverse stakeholders, was established under the name POET – Productivity & Operational Effectiveness Team. This team took on the responsibility of analyzing, identifying, and resolving issues affecting operations. Their collective efforts were directed towards addressing ineffective business processes and recommending necessary changes and improvements to streamline operations.

Throughout the engagement, the team received coaching, training, and guidance, actively expanding their skills and professional development through training courses, mentoring, and daily interactions with stakeholders. Training focused on creating a format for collecting and sharing information using a standardized methodology. The establishment of Rules of Engagement ensured the team's effectiveness and ensured they maintained a prioritized register of identified issues, resolving them through projects, and reporting their progress to management through regular briefings. In subsequent stages, the team actively supported the implementation of leadership-approved changes.

The scope of work included conducting a detailed workflow analysis to assess process gaps, inefficiencies, and constraints in day-to-day operations. The Aptean Industrial Manufacturing ERP System feature-set was thoroughly reviewed to understand key benefits when properly implemented. A gap analysis evaluated the adoption levels of the new ERP System in various work environments. A Process Dependency Analysis (PDA) identified operational dependencies among stakeholders, ensuring the fulfillment of informational and operational needs. Finally, the formation and training of the Operational Effectiveness Team equipped them with the necessary skills to identify and recommend changes, with subsequent support for implementing

approved operational process alterations.

The following steps were taken:

Project Title – Performance Management Consulting (22 Days Total)

- REPORT – Detailed Workflow Analysis — 5 Days
- REPORT – ERP System Feature-set Analysis — 3 Days
- REPORT – ERP Gap Analysis — 3 Days
- REPORT – Process Dependency Analysis (PDA)— 3 Days
- EMPLOYEE DEVELOPMENT – Creation of an Operational Effectiveness Team and training via ManageMeant™– 8 Days

Results

The following results were cited as a direct result of engaging with NJMEP 12-18 months following the conclusion of the project outlined above.

- ✓ **New Sales: \$3 Million**
- ✓ **Retained Sales: \$1.5 Million**
- ✓ **New Jobs: 5**

When asked what the standout results from engaging with NJMEP were from his perspective, he had this to say: “The standout results [from this project],” he begins, “Everything is still moving forward and is still in process and will be in process always, because we’ll always be looking to identify ways to streamline things and improve the processes,” says Russnow. “The thing that I’m most happy with and most proud of is that I didn’t have to be the one to drive it.”

“[NJMEP] has opened our eyes to the things that we didn’t necessarily know that were out there for us, from a standpoint of support from the state or support from other organizations”

Eddie Russnow, President of MAC Products

Rose Brand Wipers Inc. Is Rewarded For Innovating - Working With Njmeep To Secure R&D Tax Credits

Background

Rose Brand Wipers is currently located in Secaucus, New Jersey (9th Congressional District; 32nd Legislative District) and is a leader in theatrical draperies and production supplies in the entertainment, educational, and exhibition space. This 'MADE in New Jersey' manufacturing businesses fabricates custom stage curtains and assemblies for venues ranging from Broadway productions to school auditoriums and have been doing so since 1921. They specialize in transforming a space to create an immersive environment for anyone in attendance, no matter the audience.

Clients come to Rose Brand Wipers because of its ability to fabricate custom complex tracks, incorporating the latest fabrics, and electronically controlled motorized systems. Driven by innovation, this manufacturer is constantly pushing the boundaries of what's possible. Company leadership is always looking for new, innovative ways to support their customers while providing the best quality service possible. Rose Brand Wipers turned to NJMEP as a partner to support their growth and competitiveness in New Jersey and abroad.

Challenge

New Jersey manufacturers need to constantly strive to improve their production process, cut costs, and take advantage of any incentives available in order to remain competitive. The high costs of doing business in the Garden State can be offset when a business works with a partner like NJMEP to identify ways they can improve the bottom line. Creating and manufacturing custom environments for such an extensive client base requires constant innovation and investment.

Rose Brand Wipers is forced to invest their time and money refining their production process, service offerings, and exploring advanced materials to remain a leader in their industry. Without innovating, they would quickly fall behind the competition. All this innovation requires substantial investment. The combination between the business expanding and constantly striving to improves tremendously costly

Solution

Rose Brand Wipers heard about another manufacturing business partnering with NJMEP to improve their competitiveness. A complimentary business assessment was conducted to gain an understanding of the company and its manufacturing processes after Rose Brand Wipers reach out to NJMEP. It was discovered the manufacturer would be a great candidate for R&D Tax Credits.

At first, leadership dismissed R&D Tax Credits, stating no R&D was conducted at the facility. NJMEP's Account Manager insisted they meet with the subject matter expert to explore what qualifies as R&D. Many manufacturers immediately envision lab coats and clean rooms when R&D is being discussed. However, nearly every manufacturer requires some form of innovation or has developed or is constantly developing new processes that allow them to perform their job better, safer, or produce their products more efficiently.

"Learning about R&D Tax Credits came around at just the right time because we were going to move into areas with much more trial and error," Bob Bertrand, Rose Brand Wipers General Manager stated.

NJMEP worked with Rose Brand Wipers to conduct a close-up inspection of their facility and operations. An indepth study was conducted with NJMEP's subject matter expert to see which of the manufacturer's actions met the following criteria.

The goal must be to discover some technological information that does not already exist within the organization.

There must be a level of technical uncertainty related to the product or process development.

Any qualifying event must have a process of experimentation to prove or disprove a technical theory.

The research must have goals attributable to function, efficiency, capacity, or other performance criteria.



SUCCESS STORY: INNOVATION & GROWTH

After a preliminary review and the eligible R&D costs were reviewed, NJMEP combined this information with additional organizational data to provide Rose Brand Wipers an approximate Federal R&D tax credit.

The R&D Tax Credit Process includes...

- Reviewing the list of development projects and selected eligible R&D projects
- Client preparing a narrative or description of each project for the accounting firm's review.
- The accounting firm reviewed the narrative and made some revisions to eliminate ineligible areas or activities
- The client supplied information enabling the accounting firm to allocate costs to the eligible projects
- NJMEP worked with the client to gather costs related to the R&D projects
- The accounting firm prepared the necessary tax forms and submitted the tax return and R&D tax credit on the client's behalf

NJMEP supported the manufacturers' needs every step of the way to secure the largest possible R&D Tax Credit. The tax credits they received continue to help the organization expand and grow in New Jersey.

Results

Rose Brand Wipers has a long history of pushing the boundaries of its manufacturing process and service offerings. The ability to fully understand what processes qualify as R&D is critical so they can take full advantage of the R&D Tax Credit incentive program. The credit helps offset some of the costs of constantly improving and allows them to continue leading their industry.

"If we didn't have the R&D Tax Credits, I'm not sure we would have had the ability to make some of the acquisitions that help Rose Brand Wipers maintain its standing as an industry leader," said Bob Bertrand, Rose Brand Wipers General Manager.

An independent third-party survey captured the impact of Rose Brand Wipers engaging with NJMEP after 12 months:

- ✓ **Increase Sales: \$9,000,000**
- ✓ **Employee Creation: 27**
- ✓ **Retained Sales: \$17,000,000**
- ✓ **Employee Retention: 10**
- ✓ **Cost Savings: \$385,000**

2019-2020 Survey Period

"If we didn't have the R&D Tax Credits, I'm not sure we would have had the ability to make some of the acquisitions that help Rose Brand Wipers maintain its standing as an industry leader"

Bob Bertrand, Rose Brand Wipers General Manager



Background

Knickerbocker Machine Shop Inc. has been in continuous operation since 1943. Starting as machine designers and welders in a 3-car garage in Paterson, New Jersey, the Company soon focused on producing the ASP Brand of austenitic stainless steel, duplex and high alloy pipe fittings, plugs and unions in 1944. The ASP Brand, marketed by Alloy Stainless Products Company Inc. became well known and internationally sold through PVF distributors for use in the chemical, pharmaceutical, petro-chemical, power & energy, shipbuilding, and nuclear power industries.

Challenge

Knickerbocker Machine Shop needed to improve its competitiveness and productivity. They had issues being able to expand their business and reach new prospects or new markets, and needed a way to engage with the community and business collaborators. It was imperative that the company develop new, sustainable revenue streams to remain viable.

Solution

Knickerbocker Machine Shop reached out to NJMEP for assistance and NJMEP met with Knickerbocker's senior staff to complete an on-site assessment with a plan to identify and clarify the organization's sales and marketing strategies.

The project focused on a needs analysis, and conducted a strengths, weaknesses, opportunities and threats (SWOT) analysis. Through a structured process, NJMEP helped Knickerbocker identify and characterize the markets, trends, value chains, and website enhancements.

NJMEP initiated a program that consisted of individual training modules: Destination Innovation, Establishment of Growth Opportunity Criteria & Project Goal Setting, Sales & Marketing Outreach Planning, and Monthly Market Scouting & Business Development Support.

The training produced:

- An expansion of Knickerbocker's ability to reach new prospects and or new markets through a carefully planned and professionally executed growth strategy.
- Distinct criteria that will define, weigh and go on to set a hierarchy of the organization's efforts as related to top line growth.
- Expert facilitation and project support that will instill a: Plan, Do, Check and Act inspired system to drive market diversification efforts.
- A structured process for identifying market needs and opportunities, while building a strategy and tactics to pursue carefully vetted market opportunities.

Results

After completing the training, Knickerbocker created new marketing messages and established a marketing strategy. The company is in a more sustainable position now that it has a formalized marketing plan and website in place.

Knickerbocker Machine Shop benefited from NJMEP's help in many ways:

- ✓ **Retained Sales: \$4,500,000**
- ✓ **Cost Savings: \$50,000**
- ✓ **Savings on Investments: \$50,000**
- ✓ **Workforce Practices: \$50,000**
- ✓ **New Sales: \$150,000**

Puratos Corp

Six Sigma Green Belt Training



SUCCESS STORY: INNOVATION & GROWTH

Background

Puratos is an international group offering a full range of innovative products, raw materials and application expertise to the bakery, patisserie and chocolate sectors. Their headquarters are just outside Brussels (Belgium), where the company was founded in 1919. Almost a century later, their products and services are available in over 100 countries around the world and, in many cases, are produced by their network of local subsidiaries. Above all, they aim to be 'reliable partners in innovation' helping their customers around the world to deliver nutritious and tasty food to their local communities.

Challenge

Puratos Corp aims to be a reliable partner in innovation helping customers deliver nutritious and tasty food to their local communities. Customers tend to be artisans, industrial manufacturers, supermarkets, and food service companies. They wanted their employees to have the tools and techniques to improve and evaluate supply chain logistics and distribution processes to improve production in daily operations. With those goals Puratos wanted to go through Six Sigma Greenbelt training.

Solution

Puratos worked with NJMEP to work on the Six Sigma Greenbelt Certification. Six Sigma is a universally recognized standard of excellence for continuous process improvement. This course will prepare all participants for Green Belt certification – an accomplishment that will add value to each of their their careers. The participants will have the tools and techniques to improve and evaluate supply chain logistics and distribution processes to improve production in daily operations. The students will understand project opportunities and determine quantifiable savings by participating in Six Sigma training.

In this 5-day course attendees will master the use of the Six Sigma approach to quantify the critical quality issues in the

company. The Philosophy of Six Sigma recognizes that there is a direct correlation between the number of product defects, wasted operating costs, and the level of customer satisfaction.

The implementation of Six Sigma is a team process. As a Six Sigma Green Belt, attendees will be equipped to support the Six Sigma implementation in their company.

Results

Puratos Corp benefited greatly from NJMEP's help in many ways:

- ✓ **New Sales: \$100,000**
- ✓ **Retained Sales: \$100,000**
- ✓ **Cost Savings: \$200,000**
- ✓ **Retained Employees: 2**

"The training was insightful and taught in a way that it could be tailored to any industry that is looking to become better, cheaper, and faster all while improving quality. The training was data driven and gave us tools to create metrics to assist us with tightening our spec."

Jaimian Davis, Warehouse Manager of Puratos Corp.

GEMCO is Leading the Way: Creating a Culture of Continuous Learning in Manufacturing

Background

Since its inception in 1916, GEMCO, originally known as The General Machine Company of New Jersey, has been the global authority in mixing and drying solutions. Operating from an 80,000 square foot industrial machine factory in Middlesex, NJ, GEMCO has consistently demonstrated innovation and engineering excellence. This family-owned business, spanning four generations of the Muench family, has installed thousands of powder blending and drying units in nearly 40 countries, serving diverse industries from pharmaceuticals to automotive. GEMCO's commitment to superior, heavy-duty design, continuous R&D, and dedication to operational excellence ensures that their equipment, which can last over 40 years, remains at the forefront of industry standards and best practices.

Challenge

One of the biggest challenges in manufacturing, particularly in New Jersey, is remaining competitive. New Jersey plays host to just over 9,500 manufacturers ranging from small to medium-sized enterprises to Fortune 500 manufacturers.

"A huge motivator in the industry is competition," says Casey Bickhardt, President and CEO of GEMCO. One of the key ways in which manufacturers like GEMCO stay competitive is by consistently upskilling and reskilling their employees. "Competition drives people to be a little bit better," Bickhardt says, "It's a motivator—it's not the ONLY motivator, but competition certainly is a motivator, and the market has a way of outpacing you, and it has a way of outpacing you really quick if you're not a learner."

Bickhardt, the fourth-generation leader of GEMCO, started her career in one of the most unlikely of places—sweeping the shop floor. From there, she grew in her career from the shop floor to purchasing, then to management, before finally ending up as president and taking over operations. Since she climbed through the ranks the old-fashioned way, she has a greater appreciation for the need to reinvest in all levels of your workforce and instill the same learner mentality at every

level of your operations.

"I'm huge into training, and I always like it when my employees grow from that training," says Bickhardt. "How are we thinking? If our thinking isn't growing more strategic then we're tactical," she adds, "Tactical means someone needs to tell us what to do— 'Tell me what you want me to do and I'll do it'—that's the kiss of death for any company or any employee."

If competition in manufacturing is king, and personal improvement is the best way to improve production, then upskilling and reskilling the GEMCO team is what's prescribed regularly and often. In the case with GEMCO, NJMEP's account manager Jeff Meister knows that Bickhardt's a learner and likes to instill this same mindset in her team.

"Not only is the competition constantly upleveling, but we need to be upleveling, and if we're not, that market can outpace us in a blink of an eye," says Bickhardt, "And when it does, it's gonna hurt, it's gonna hurt real bad, and nobody wants to be in that situation."

Solution

The outcome of not reinvesting in your workforce or outpacing your past selves and your competition is a conversation Bickhardt doesn't even want to entertain. What would happen if GEMCO were to put reskilling and upskilling to the wayside?

"I try and talk frequently to everyone about our competition, and how we also need to be competing with ourselves from the basis of last year, so not reskilling or upskilling is an avenue I don't even want to explore," says Bickhardt, "What would happen if we don't do this stuff," she adds. The answer? "We would shrink, we would get smaller, we would lose an edge, we would lose technology if we don't grow," she concludes.



SUCCESS STORY: **WORKFORCE DEVELOPMENT**

Nine participants from the GEMCO team recently completed a PMP® Certification Exam Prep Course designed for project team members seeking to enhance their skills, individuals aiming to deepen their project management knowledge, and executives overseeing project management. The course offered a comprehensive and practical discussion on planning projects realistically to ensure success and managing their progress until completion. Participants gained powerful insights into project management, equipping them to handle time-phased work activities, solve problems, and create unique products or processes effectively. This training emphasized using common sense and determination to achieve successful project outcomes.

The course covered essential aspects of project management, including understanding project initiation, solving organizational challenges, and defining success criteria. Participants learned to identify and sequence tasks, realistically estimate time, and create practical schedules. The course emphasized assessing project cost sensitivity, ensuring quality, and effectively recruiting and managing teams. It also highlighted the importance of efficient communication, managing stakeholder expectations, and monitoring progress. Best practices for maintaining on-time project completion and strategies for rescuing delayed projects were also discussed.

“You could be performing as well as you did last year,” says Bickhardt, “But it still wouldn’t be as good as what you need to be this year.”

PMP® Certification Exam Prep Course

Course Outline – Project Management Essentials:
9 Participants | 48 Hours Total | 6 Days

Results

“GEMCO wouldn’t be better off without someone like [NJMEP’s Account Manager] Jeff,” says Bickhardt, “One reason I know this [project] was successful was because of Jeff. His leadership style is comprehensive and results driven.”

The following results were cited as a direct result of engaging with NJMEP 12-18 months following the conclusion of the project outlined above.

- ✓ **New Sales: \$1,000,000**
- ✓ **Jobs Created: 4**
- ✓ **Retained Sales: \$1,000,000**
- ✓ **Jobs Retained: 3**
- ✓ **Cost Savings: \$1,000,000**

Another key outcome from engaging with NJMEP for leadership training is a mindset shift. 🌈

“Communication,” says Bickhardt, in a word, talking about her experience of climbing the ranks through the organization over the years beginning on the shop floor and upward to the C-Suite. She says, “I had to learn how to deal with different customers when I was in sales, so I learned a different way to speak and communicate at each one of those different levels. I think this leadership training is starting us off on that journey,” adds Bickhardt.

Casey Bickhardt, President and CEO of GEMCO

Balancing Productivity and Progress: SWEMCO's Certification Triumph

Background

Founded in 1965, SWEMCO has grown from a small family business into a leading electronics manufacturing service provider, all while staying true to its roots. Spanning three generations, the company's legacy is built on a foundation of quality, innovation, and a deep commitment to its team members and customers. Headquartered in Moorestown, New Jersey, SWEMCO specializes in high-complexity electronic assemblies for industries like defense, aerospace, and telecommunications. Yet, its success isn't just measured by its cutting-edge technology or industry partnerships—it's also about the people who bring it all to life.

Take Jacob Brickley, SWEMCO's Continuous Improvement Manager, as an example. A Navy veteran, Jacob joined the company 12 years ago with plans to work while figuring out his next steps in higher education. His journey broke the mold of the traditional "high school-to-college" pathway, proving that success doesn't rely on fitting a one-size-fits-all narrative. Today, Jacob is a vital leader at SWEMCO, driving operational excellence and embodying the values that make the company exceptional. By blending family-driven leadership with a focus on innovation and workforce development, SWEMCO continues to set the standard in the electronics manufacturing industry.

Challenge

For SWEMCO, maintaining its competitive edge in the fast-paced electronics manufacturing industry required constant adaptation and improvement. Certifications were critical—not just as a badge of compliance but as a way to ensure their workforce had the skills needed to meet the rigorous demands of their clients in the aerospace, defense, medical device, and telecommunication sectors. In SWEMCO's case, achieving

and maintaining certifications like AS 9100 (Aerospace Manufacturing Certification) and ISO 13485 (Medical Device Manufacturing Certification) was critical to their success. Maintaining these certifications is crucial for meeting industry requirements. Employees on the production floor must also be aligned with their stringent quality protocols.

Balancing the training requirements with the daily demands of a bustling production floor adds another layer of complexity to renewing and maintaining certifications. Every hour spent in training was an hour away from fulfilling customer orders—a delicate balancing act that required careful planning and a seamless system to avoid costly disruptions.

Without a proper strategy in place and an accommodating partner, the risk of inefficiencies, employee burnout, or missed opportunities loomed. SWEMCO needed a solution that could streamline the certification process while preserving the productivity and focus required to keep their operations running smoothly.

Solution

To help navigate the complexities of certification while maintaining productivity, SWEMCO turned to NJMEP to provide a tailored solution that prioritized flexibility and efficiency. Recognizing the need to minimize disruptions on the production floor, NJMEP worked closely with SWEMCO to create a structured training program that aligned with their operational schedule. NJMEP provided a total of 144 hours of training over 18 days. Training included Principles of Lean Manufacturing, critical training that upskilled employees on the standards involved in the IPC-610 certification as well as training on IPC-J-STD-001 standards. The organization was supported throughout its IPC-J-STD-001 and IPC-610



SUCCESS STORY: **WORKFORCE DEVELOPMENT**

recertification. Beyond these certifications, SWEMCO brought NJMEP in to provide First Aid/CPR and Fire Extinguisher/Firefighting training to improve employee safety and security.

NJMEP's proactive guidance ensured SWEMCO could juggle both certification and production priorities without compromise, positioning the company for sustained growth in aerospace, medical, and other high-stakes industries.

Results

The impact of this partnership over the past 12 months extended far beyond certifications. According to an independent third-party survey, SWEMCO reported the following results:

- ✓ **Increased Sales: \$4,000,000**
- ✓ **Retained Sales: \$15,000,000**
- ✓ **Employees Retained: 40**
- ✓ **Cost Savings: \$60,000**
- ✓ **New Plant Equipment Investments: \$450,000**

"Working with the different training resources we get from [NJMEP] we've been able to work with one of your representatives for proper scheduling; from planning it throughout the year, setting a complete schedule, and getting our team trained up"

Jacob Brickley, Continuous Improvement

Norwalt Design Finds Time for Employee Upskilling Amid Rapid Growth

Background

Norbert Seitel and Walter McDonald founded Norwalt Design in Whippany in 1971, before expanding and moving operations to Randolph in 1988. Since Norwalt's doors first opened, they've dedicated themselves to producing machines of unparalleled quality, offering superior customer service, and consistently pushing the boundaries of innovation through cutting-edge design. Over the years, their commitment to excellence and continuous growth has positioned them as the preferred and trusted provider of elite automation machinery. From the initial design phase to the final build, they relentlessly challenge limits and overcome barriers to deliver the most efficient and innovative solutions.

Mike Seitel, CEO of Norwalt and second generation executive explains, "We were working with all the big consumer goods companies on building their custom machines, and now we've gone further," he says. "When COVID hit, we were put under demand to build a lot of the test kit machines and machines for the vaccine," adds Seitel, "Once that was over, we actually held those customers and now they're coming back to us for additional work, and we've had to expand to where we opened a second facility."

The company plans to expand again next November to a third facility as orders continue to flood in for Norwalt's expertise in precision machine manufacturing. Norwalt is also working on a secret project that involves a new patent for sustainable packaging, something that Seitel says is going to revolutionize the industry.

When asked how a small precision machine manufacturing outfit was able to make such a big splash in the major consumer goods market, "We did a pivot in the way we worked in terms of quality and service," says Seitel, "We made sure it was always the best machine you could buy and we didn't question any customer complaints or issues."

Challenge

With the rapid growth that Norwalt has been experiencing comes its own set of challenges, most notably in facilitating

programs like employee training and upskilling. In the wake of COVID, where Norwalt's production was increased significantly to keep up with demand for COVID Test Kits and other essential goods, the Norwalt team needed assistance in the way of training facilitation. Seitel says that they try to implement training whenever feasible, but due to the amount of business growth the company has experienced in the past year, it's been difficult to dedicate the time—a sentiment echoed by Keith Harman, Director of Business Development and Technical Sales at Norwalt.

"It's very taxing when you have huge projects for like three months," says Harman.

"There's not a lot of help for manufacturers here, in the state," adds Seitel, "Well, there is, but it's very splintered." But Seitel knows he can always count on NJMEP when he needs resources to solve one of the many challenges manufacturers face in New Jersey.

Solution

"We were doing LEAN 5S training there [at CCM] and we went through the state, where you got money back for the training, and we worked with NJMEP on that," says Seitel. And that's where the relationship between Norwalt and NJMEP began. So, with a need for training and not a lot of flexibility to implement, Norwalt reached out to their account manager at NJMEP again to get some training done for their operators—this time it would be for Geometric Dimensioning and Tolerancing training, an essential skill for an operator at Norwalt working with the latest technology in machine design and production.

The course provided Norwalt's operators with uniformity in drawing specifications and interpretation, and geometric tolerancing to reduce controversy, guesswork, and assumptions throughout the manufacturing and inspection process. Operators learned that when GD&T is used properly it will improve communication and result in better product design, and can also increase product tolerances, saving the



SUCCESS STORY: WORKFORCE DEVELOPMENT

business time and money.

The following steps were taken:

Project Title – Geometric Dimensioning & Tolerancing Training (2 Days Total)

- Introduction; Dimensioning and Tolerancing Fundamentals – 2 Hours
- Symbols, Terms, and Rules; Datums – 2 Hours
- Form controls – Flatness, Straightness, Circularity, Cylindricity, Free state variation – 2 Hours
- Orientation – Parallelism, Perpendicularity, Angularity – 2 Hours
- Position, General – Specifying the position tolerance, Regardless of feature size, Maximum material condition, Shift tolerance, Boundary conditions, “0” Positional Tolerancing – 2 Hours
- Position, Location – Fasteners, Projected Tolerance Zones, Multiple patterns of features, Composite positional tolerancing, Two single-segment feature control frames, Nonparallel holes, Counterbored holes, Noncircular features, Symmetrical features – 2 Hours
- Position, Coaxiality – 2 Hours
- Concentricity and Symmetry; Runout; Profile – 2 Hours

Results

The following results were cited as a direct result of engaging with NJMEP 12-18 months following the conclusion of the project outlined above.

- ✓ **New Sales: \$250,000**
- ✓ **Retained Sales: \$250,000**
- ✓ **New Jobs: 6**
- ✓ **Jobs Retained: 4**
- ✓ **Cost Savings: \$175,000**

When asked if there were any ways in which NJMEP has added value to their business, Seitel had this to say: “In the past, [NJMEP] has been the voice of manufacturing with the government,” he responds, “That’s probably the biggest help.”

“It’s indirect, a lot of the help,” adds Harman. “All the work you do helps [manufacturers].”

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Keith Harman, Director of Business Development and Technical Sales at Norwalt

PowerTech Upskills Their Workforce to Close the Skills Gap



SUCCESS STORY: WORKFORCE DEVELOPMENT

Background

PowerTech is an industry leader in the energy conversion space. The company specializes in electrical power supply systems for rail and industrial applications. Their mission is to “ensure energy availability and to use it as effectively as possible. Whether in rail vehicles, in industry or in research and development, our power supply systems operate efficiently and reliably and ensure that optimum use is made of energy.” PowerTech complies with the standards of ISO 9001 quality management systems and the International Railway Industry Standard (IRIS).

Challenge

Manufacturers all over the country are facing a severe skills gap. PowerTech was in search of new production workers with all the skills to help drive their company forward. Unfortunately, that perfect hire with all the right experience just didn't exist. Finding employees that will remain loyal to an organization is another massive challenge. Workers find it much easier to walk away from an organization that doesn't invest in their professional development.

PowerTech is not alone. Nearly every manufacturer across the nation is facing similar challenges. What makes PowerTech stand out is how they took action to move forward and overcome.

Solution

“It comes down to motivating people and increasing company loyalty. The original discussion with PowerTech leadership was centered around how we can develop everyone at our organization. The NJMEP program was simply a good solution.” Andreas Beilharz, Director of Operations and PowerTech's mentor stated.

PowerTech hired Jaime S., a former truck driver, to help with work in the OEM side of the business. Jaime proved himself as a valuable member of the team. To provide Jaime with the skill that will allow him to contribute even more to the organization, PowerTech leadership signed him up to take part in the NJMEP Industrial Manufacturing Production Technician (IMPT) Apprenticeship Program.

The IMPT Apprenticeship Program is part of NJMEP's Pro-Action Education Network. The Pro-Action Education Network is a state-wide workforce development program spearheaded by NJMEP. This program provides New Jersey manufacturers with a variety of solutions to bridge the skills gap. The IMPT Apprenticeship Program is a year and a half long program that mixes on-the-job (OJT) training with in-class related technical instruction (RTI). The curriculum focuses on providing education to develop well-rounded manufacturing professionals.

“We wanted to push some of our guys from the shop floor to the next level. With the support of NJMEP, we could offer to develop our workforce.” Beilharz stated.

Results

“We saw that the NJMEP program gives apprentices a bigger picture about the product they're working with, a perspective on safety, and a production point of view.” Beilharz explained.

Jamie, PowerTech's apprentice stated, “It gave me some newer information. I did welding in high school but I learned a lot more of the technical details. I've learned more about blueprint reading and drawing and pneumatic systems, and hydraulic systems. Of course, the safety review was great.”

Jamie has been promoted to servicing PowerTech's older materials. PowerTech can now utilize his new skillset and place him in more critical roles. He is now able to contribute even more to PowerTech.

This apprenticeship is split up into two parts; related technical in-class instruction and on-the-job learning. As of March of 2020, Jamie completed the in-class related technical instruction portion of the apprenticeship. Now he will continue forward with additional on-the-job training. PowerTech is already realizing the benefits and there is still another entire section of the program centered around on-the-job training.

United Premium Foods Expands Products And Increases Productivity Amid Labor Crunch

Background

United Premium Foods (UPF) provides quality food products and temperature-controlled warehouses. As a USDA and FDA certified food processing, storage, and distribution manufacturer, UPF serves as the leading manufacturer and distributor of authentic Irish and Italian meat products in the US. They operate out of a state-of-the-art, 110,000 sq. ft. food processing and cold storage facility in Central New Jersey.

UPF has more than 100 years of combined food production experience and offers services that can help customers customize and optimize their entire production process—from product formulation to quality-controlled production, and finally to packaging and short-term cold storage. Thanks to multi-vendor industry partnerships, UPF can also leverage bulk pricing for their customers during the supply acquisition process.

UPF already manufactures the highest quality products, but they were looking to expand their business offerings and work with new clients, which required them to acquire specific certifications to gain access to new marketing opportunities.

Challenge

UPF's CFO has worked with the New Jersey Manufacturing Extension Program (NJMEP) in the past on R&D tax credits and thanks to those successful efforts, UPF approached NJMEP again in 2021 with hopes of further optimizing their production process and addressing certain challenges that they faced in terms of Food Safety—particularly with their expansion of pet food products.

According to Ken Mayer, CEO at UPF, “[UPF was] looking at a lot of challenges with Food Safety. Even in the pet world, food safety is a very high concern. There's a certain priority that people have with their pets and food safety is not to be taken lightly.”

UPF was also facing certain manufacturing challenges, they were particularly struggling in certain areas with efficiency,

yield loss, and that's why they brought in NJMEP to discuss LEAN Manufacturing. The more efficient a manufacturing processes can be made, the higher the potential yield. Taking steps to further optimize manufacturing processes and training staff to adopt new principles that will reduce setup times, convert activities that will make production line staff more efficient per shift, further increasing ROI in the long term.

UPF understood that it was more important than ever in the post-COVID environment that they optimize every step of their manufacturing process. They were looking to mitigate any form of waste in production, whether it be from inefficient manufacturing processes or employee mistakes with Food Safety.

Since UPF had previously worked with NJMEP on R&D Tax Credits and recently brought the team in for an IT Security Assessment as well, it was an obvious choice to reach out to Rob Lindemann, Account Manager & Food Vertical Specialist at NJMEP.

Solution

The solution to UPF's challenges was to first map out the current processes for their food manufacturing production facility and then create a baseline for process improvements while further identifying areas of opportunity. The solution was centered around creating a current state process map followed by an improvement opportunity list. A value stream map (VSM) would then be drafted where an evaluation of every step from beginning to end, from order receipt through shipment of the finished product, and this would provide a baseline for generating a future state map with necessary optimizations generated through UPF's work with NJMEP.

The second aspect of enhancing and optimizing productivity was creating quick changeover opportunities on the production line to increase the amount of product that each production line can generate per shift. Training was



SUCCESS STORY: FOOD MANUFACTURING

implemented that taught production line staff how to convert internal activities to external activities and –such as reducing setup time for a specific piece of equipment–so that they could generate more finished product in the same amount of time, which resulted in more revenue generated per shift. The principles outlined in this training propose a reduction of as much as 20% of the initial setup time, which would give the production line more time to focus on actual tangible production.

After meeting with CEO Ken Mayer and taking a detailed plant walk through focusing on food safety practices, NJMEP's resources determined there was a need to adjust the food safety culture of UPF's employees. This adjustment would require enrolling qualified employees in training courses facilitated by expert resources that focus on Environmental Monitoring Programs, Cleaning & Sanitation Programs: SSOPs, Pre-Op Inspections, and Machine Manuals. There was also a need to mentor UPF's Quality Control team and educate them on problem solving to better meet their client's quality needs. It was also necessary to implement Monthly Training Sessions to effect long-term changes are continued.

Results

In a highly competitive market like food manufacturing, it's important to continue to innovate and expand operations to keep up with shifting trends. Through the course of LEAN Manufacturing and Food Safety training and implementation that was facilitated by NJMEP's expert resource, UPF was able to retain \$50,000 worth of sales, retain two employees, and cut costs by \$18,000.

- ✓ **Retained Sales: \$50,000**
- ✓ **Employees Retained: 2**
- ✓ **Cost Savings: \$18,000**

The consultation with NJMEP's expert resource also provided UPF's Production Line Workers and Quality Control Team with long-term implementation strategies and the tools to ensure that the work done during the project is carried out in all future day-to-day production activities.

Outside of the tangible monetary results, Ken Mayer CEO of UPF says it's their employees that are the real testament to their success: "The biggest success story here are the people. We have a great group of people and that's our biggest asset within the building. Equipment is equipment, we can replace that, but you can't replace good people easily."

"On the food safety side, if you're not committed and you're not establishing a food-safe culture, you're not going to grow your business–period. The larger opportunities that we're working for will not tolerate that at all. Whether it be issues with micro failures or foreign materials, everybody [in the industry] has these challenges but it's how they mitigate and deal with them is what separates the good manufacturers from the bad. Your reputation will live or die on that."

Ken Mayer, CEO - United Premium Foods Inc.

NutraStar Secures Valuable Food Defense Certification and Engages Workforce with NJMEP's Help

Background

NutraStar is a local manufacturer that specializes in producing custom formulated tablets, capsules, and powders for nutraceutical brands. Located in Farmingdale, NJ, NutraStar has a staff over 250 employees on-site and they manufacture 10 million capsules, 100,000 bottles, and 10,000 kg of custom formulated powder per day, all out of their 60,000 square foot production facility. They are one of the top contract manufacturers for leading supplement brands. NutraStar manufactures their custom formulations using the highest-quality raw materials.

Their products, especially capsules, provide quick and efficient doses for supplement consumers. They have some of the most technologically sophisticated encapsulation machinery available on the market and deliver their products within industry-leading turnaround times.

Challenge

The FDA requires food manufacturers to comply with the latest food defense requirements. NutraStar needed to ensure its workforce was trained on the proper food defense strategies before the FDA's next visit. In addition, NutraStar understood they needed to take this training seriously and maintain their food defense practices after its FDA audit to remain in good standing with the global safety science organization, UL Solutions. The UL helps companies to demonstrate safety, enhance sustainability, strengthen security, deliver quality, manage risk, and achieve regulatory compliance. The audit encompasses all GMP regulations.

NutraStar was looking for a partner that can help them remain compliant with both the UL and FDA. The FDA recently started requiring food manufacturers to follow the food defense regulations to be considered compliant and receive their GMP certification. Without the GMP certification, it would be difficult for them to continue operating. Customers have requested that NutraStar have the certification before continuing business with them. Customers will check for the certification on a third-party database.

"We knew that if we weren't compliant and we did not follow through with the full process, there's no way we would get that certificate and we wouldn't be able to show it to our customers," explained NutraStar Director of Quality, Sam Brownstein. "They have a way of looking us up in a database. They know that even if we say we're working on it, and we've gotten an extension, but if that deadline had come and we didn't have an audit, we would not be in the third party's database. That would be a major loss of customers. We needed to comply, and we needed to have training, and we needed our staff to have an understanding of what the requirements are."

Solution

NutraStar explored options to upskill their staff and become certified by the FDA's upcoming deadline, and discovered NJMEP has the expertise that would address all their needs. They reached out to NJMEP for help and explained their challenge to the NJMEP account manager.

Their account manager is familiar with the regulations, the timeframe needed for preparation, and its importance. The account manager knew they didn't have much time to prepare so he worked with NutraStar's team to quickly develop a plan. A plan was created immediately after the account manager surveyed their facility and staff and saw how much time they would need for food defense training and certification.

"Within a couple of weeks, the trainer was here. It was a very good experience. The trainer was very hands-on and got everybody involved. Everybody was really able to walk away after that and write their own program for this food defense, which was quite unique," Brownstein said. "The trainees, and everybody on the team that was trained, came back and told me it was interactive, it was fun, and it was something that they would do again with this trainer. That was like a game changer to me."



SUCCESS STORY: FOOD MANUFACTURING

The key topics that were discussed:

- Understanding the importance of a food defense and training
- Explaining actionable process steps (APS), mitigation strategies
- Describe ways to protect food from intentional adulteration
- Understanding how to recognize and report suspicious activity
- Review FDA Employee FIRST Learning Objectives
- Review employees, role in preventing intentional adulteration

Training took a total of 12 hours to complete, including the eight hours of on-site training and four hours of training customization. The training's focus was on the physical structure for food defense elements to help better explain 21 CFR 121 regulations. Working with a knowledgeable consultant to come up with a quick plan allowed NutraStar to have food defense certification before the deadline, become GMP certified, and ultimately continue their business with customers.

Results

NutraStar's staff received their certification after completing the food defense training, and they completed all the requirements in time for their next audits with the FDA and UL. They also received a perfect audit score of 100 as a result of the training provided by NJMEP's team. This in turn drew more interest from customers who specifically look at audit scores before continuing business.

The results below reflect the impact NutraStar experienced while engaging with NJMEP:

- ✓ **Retained Sales: \$10,000,000**
- ✓ **New Sales: \$2,000,000**
- ✓ **Retained Jobs: 2**
- ✓ **New Jobs: 2**
- ✓ **Cost Savings: \$20,000**

"Our customers ask us, 'What was your score from your last audit?' When it's a hundred, a certain level of interest and business goes to a whole new level. They look at us differently and, in general, the market would look at us differently, because they see that we're taking our quality very, very seriously and we are sincere about what we do and what products we make and how we make those products. NJMEP played a vital role in that. Our customers are happy and it made our employees happy because everybody now feels a part of an organization that prides over their quality. Prides over how they manufacture our products. So, it was a win-win for employees and for customers."

Sam Brownstein, NutraStar Director of Quality

Food Safety Training Helps Ensure Sea Breeze Remains Compliant and Maintains High-Quality Standards

Background

New Jersey is known as the Garden State, but farming is only part of the state's impressive food industry. 'MADE in New Jersey' manufacturer, Sea Breeze is a fourth-generation, family-owned manufacturer and distributor of Premium Beverages On Tap in the Metro New York-New Jersey area since 1925. They manufacture beverage concentrates, milkshake bases, and syrups, including their famous Bosco Chocolate Syrup at their 40,000 square foot facility in Towaco, New Jersey. Sea Breeze has over 75 employees and offers a variety of services in addition to their manufactured products.

The company serves national and regional customers through the installation of custom dispensing equipment and provides emergency repair services 365 days a year. This 'MADE in New Jersey' manufacturing business is a staple of New Jersey, and their products can be found in so many households across the United States. Bars, restaurants, healthcare facilities, schools, catering halls, and establishments of all kinds turn to Sea Breeze as well for their ability to custom install dispensing equipment designed to meet their needs and can rely on this local business to provide support nearly around the clock, all year long. Sea Breeze is a well-established food manufacturer that built a trusted brand right here in New Jersey.

Challenge

Food manufacturers are held to high standards. Any product meant for human consumption must be produced in a facility that meets strict requirements and by a workforce that has the right training and certifications. This high standard is especially true for a company like Sea Breeze which hosts an impressive roster of in-house talent. Professional Sales Consultants, Production, quality assurance, their own food science laboratory, warehousing and logistics, office staff, and administration make up the entire Sea Breeze team. This presents a massive competitive advantage but also a tremendous challenge. Maintaining customer trust, a high level of service, and the ability to produce a high-quality product requires a well-trained workforce that follows all food-

safety best practices.

Food regulatory bodies require businesses to participate in annual training for specialized employees and any time Sea Breeze brings on new members of the team, those individuals must be brought up to speed. Additionally, when staff are promoted to a new role, they must be trained to ensure a smooth transition, and production is not hindered in any way.

Solution

Sea Breeze has a long history with NJMEP. When new customized training opportunities are available and the company brings on new people, they turn to their local MEP center to upskill their staff. They recently hired new regulatory employees and brought on new people to work in the food science laboratory.

NJMEP has the capabilities and expertise to provide training in nearly any area within a food manufacturing operation through its highly regarded food manufacturing training suite of services. In-depth courses are led by some of the nation's most highly regarded food regulatory experts in a customizable, engaging, and efficient manner.

A total of 17 courses were identified to meet the regulatory, compliance, and upskilling needs of the client. 30 training days were provided to 10 employees over a 12-month period.

The following Quality Control – Food Safety courses and training were facilitated by NJMEP:

- Food Allergens
- Foreign Supplier Verification Program (FSVP)
- Food Defense
- FDA Food Labeling Nutritional Facts Updates
- HACCP
- SQF Practitioner



SUCCESS STORY:
FOOD
MANUFACTURING

- Preventative Controls for Human Food PCQI
- Internal Auditing for Food Safety Management
- CGMP Requirement & Readiness
- Cleaning & Sanitation
- Food Recalls and Withdrawal
- Corrective Action and Root Cause Analysis

Results

All clients that work with their local MEP are surveyed by an independent third party to record the impact the projects conducted had on that business. Sea Breeze, participated in their client survey after NJMEP's training concluded. NJMEP was cited with the following impact by Sea Breeze:

- ✓ **Retained Sales: \$50,000**
- ✓ **Cost Savings, \$15,000**
- ✓ **Investment in Workforce Practices: \$15,000**
- ✓ **New Employees: 1**
- ✓ **Employees Retained: 4**

Calandra's Italian & French Bakery

SQF Compliance



SUCCESS STORY:

FOOD MANUFACTURING

Background

Calandra's story begins in 1962 with the opening of Calandra's Bakery in Newark, New Jersey.

Luciano Calandra, an Italian immigrant, had been in America for just five years when he went into business for himself and opened a small Italian and French bakery. Mr. Calandra and his wife Ortenza worked hard day and night, and their bakery quickly developed a reputation for producing delicious bread.

Over the next 20 years the business took off as Mr. and Mrs. Calandra's two sons, Anthony and Luciano Jr., began working in the family business. Not only did Mr. Calandra teach his sons the inner workings of the bakery, but he also instilled in them his business principles of a strong work ethic, an emphasis on family, and a belief that the customer is always right. Now, over 50 years later, Mr. Calandra's philosophy remains the guiding light for the family business.

Today, Calandra's Bakery in Newark is a 50,000 square foot operation and the family now has two additional bakeries, one in Fairfield and one in Caldwell. The three bakeries deliver their products to more than 500 supermarkets, delis, restaurants, catering halls and sporting arenas in the tri-state area.

In addition to their bakeries, the Calandra family now owns and operates several hotels, restaurants, and apartment buildings in northern New Jersey. The family also produces and sells their own line of olive oil, coffee, fresh pasta, homemade sauces, and wines from their vineyard in Italy.

Although the family's business has grown substantially since 1962 and employees over 700 employees, two things remain unchanged: Calandra's Bakery is still synonymous with delicious bread, and the family remains driven by hard work, traditional family values, and a focus on customer service.

Challenge

With a company with as much growth as Calandra's has, keeping up with date production records, training records,

recipe books etc, was a great problem for Calandra's. Also they had no SQF Certification to go after accounts like Whole Foods and Trader Joe's. This was a big challenge for their business.

Solution

With a company with as much growth as Calandra's has, keeping up with date production records, training records, recipe books etc, was a great problem for Calandra's. Also they had no SQF Certification to go after accounts like Whole Foods and Trader Joe's. This was a big challenge for their business.

Results

Calandra's Italian & French Bakery benefited greatly from NJMEP's help in many ways:

- ✓ **New Sales: \$100,000**
- ✓ **New Investment in Workforce Skills or Practices: \$3,000**

"NJMEP should be supported because they truly take care of the manufacturers. They look out for them and find ways for them to succeed."

Kristin Calandra, Vice President of Calandra's Bakery

