

THE RECORD

Published by the National Tooling and Machining Association



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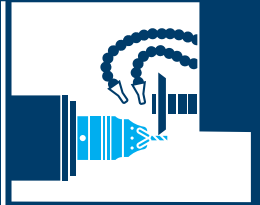
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THE RECORD

OPERATIONS & EDITORIAL

Roger Atkins, President
Doug DeRose, Editor
John Stevens, Editor

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Upcoming NTMA National Events



NTMA Summer Conference
NTMA Connect – All Virtual Conference
Monday, June 14 – Tuesday, June 15, 2021



Emerging Leaders Conference
Wednesday, September 8 – Friday, September 10, 2021
Phoenix, AZ



Manufacturing Engage™ 2021
Tuesday, October 26 – Friday, October 29, 2021
Old Alexandria, VA

DATES AND LOCATIONS ARE SUBJECT TO CHANGE

What's Your Story?

Send Us Your Story

Each issue of The Record will feature stories from members – and we want to hear from you. Send us stories of success, or those that fit the theme of the month's issue. The submission deadline is the first of the month prior to publication.

Contact Kelly LaMarca at klamarca@ntma.org.

Upcoming Record Themes

June
Midyear Analysis
July
Emerging Leaders Rising
August
Automation & Robotics...is the Time Now?



PRESIDENT'S UPDATE

As 2020 ended, there were two words that I brought with me into 2021. One word was “community” - and the other was “momentum.”

The reason for the word community was that the year 2020 showed me more about the importance of community than ever before in my career. Never would any of us expect a worldwide pandemic to dominate our year. As our association's leader, I was so thankful that, together with our members and our industry, we had a community to navigate the challenges of the pandemic. Looking back, I believe being part of the NTMA community allowed us all to weather the unplanned pandemic better than many companies that had to go it alone. Having had a constant go to place for industry-specific, company-size-specific, and state/region-specific information was reassuring in the midst of the unknown.

My second word that I brought into this new year was momentum. What I realized going into 2021 was that the community we had all experienced created a path of momentum for many of us to recover from a devastating year. Momentum probably looked different to each of us – it could be seen as a healthy

workforce, a PPP loan, increase in new orders, and maybe new equipment and technology. Whatever the momentum is, or was, for you, I hope you will stay focused and continue to build on it. It could be what takes your company to the next level in performance and execution.

One of the areas I believe will benefit the NTMA community and can help continue the momentum for all U.S. manufacturing is reshoring and onshoring. From discussions I have had, and things I have read, there is a continuing momentum for potential increased reshoring/onshoring opportunities and potential adjustments in supply chains. As a recent example: we had global supply chains highly disrupted by a barge grounded in the Suez Canal, a major thoroughfare for international trade. So, if the reshoring/onshoring momentum continues for our community, what does that mean for us? It means each of us must come out of the pandemic with purpose and passion to move our companies forward. Forward in the areas of productivity, efficiencies, tooling/work holding technology, automation, new equipment, and so much more. The point is: if we want the momentum to continue

in our community we must be willing to change and improve. Status quo will no longer be accepted. On that note, I am so proud of the many notices I have received in 2021 from NTMA members adding new equipment, automation, and technology to their companies. Another example of NTMA members leading the way for the U.S. manufacturing community.

As with any national or international disaster, and specifically in the latest example the pandemic, it brought change: change brings opportunity, opportunity creates momentum, momentum breeds success, and success assures our future. As for community, it means we are a part of a like-minded team with the same drive, passion, and focus, whose combined and shared experiences can benefit the entire community. I am proud that you and I are part of the “**NTMA COMMUNITY**” and I will always believe “**We Are Stronger Together.**”

Roger Atkins, President - NTMA



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How NTMA Members Stay Connected During Unprecedented Times



The manufacturing industry continues to grow and thrive in the face of uncertain times – but staying connected with your peers and fellow NTMA members has never been more important. While we continue to navigate the nation's reopening, as well as new concerns and issues, we can still come together virtually.

NTMA continues hosting bi-weekly "Member Drop-Ins" – unique opportunities for our members to meet and discuss complex problems, and to brainstorm ideas and solutions alongside fellow NTMA Members.

These Drop-Ins have been fantastic ways to keep our members connected – and we have brought

in proven industry experts to join the discussions, bringing important knowledge, key information, and perspectives that are important for our member shops to learn about.

Upcoming Member Drop-Ins are scheduled on the following dates: June 8, 2pm EDT; June 22, 2pm EDT;

Please check your email and our social feeds for future invites, or contact NTMA's Member & Chapter Relations Manager, Kelly LaMarca at klamarca@ntma.org or (216) 264-2837.

We hope to see you on the next call!

"This virtual roundtable has been very beneficial to the members who have attended and we encourage you to take advantage of this quick, easy, and free networking opportunity. The Drop-Ins have been very informational for me and have helped me keep in touch with membership...I think it has really helped me get to know and interact with different members across the country. I see many old friends there as well as making some new ones. The NTMA remains a very important organization for Blaser and we will remain committed to participation in events."

Drew Borders
Business Development Manager, Global Markets
Blaser Swisslube Inc.

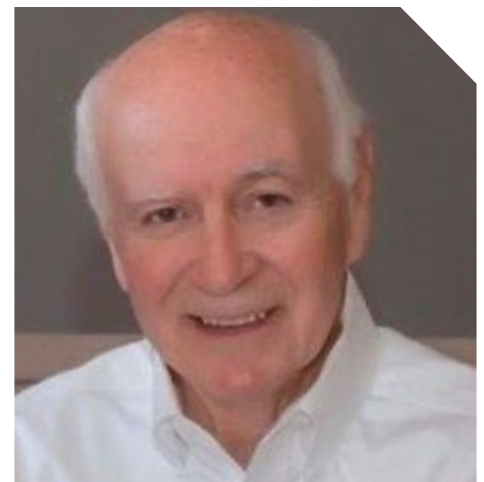
In Memoriam: Lanny Lamont

Harold "Lanny" Lamont passed away on April 4th, 2021, at the age of 83. Lanny was a key member of the NTMA St. Louis Chapter, co-founder Davlan Engineering. He was incredibly proud of his life's work at Davlan, which he helped grow from its humble beginnings in a fruit cellar in 1963, to a state-of-the-art machining and fabrication company. His impact on manufacturing in the St. Louis area was immeasurable.

Lanny is survived by his loving spouse Kay, his three daughters Lisa, Laura, and Michelle, as well as six grandchildren. Lisa, who has continued Lanny's legacy

as CFO at Davlan said, "Please know that he valued his partners, his friends, and his employees so very much and loved every day of his life at Davlan." He was renowned for his ability to connect with others – and making them feel important.

NTMA offers its condolences to the Lamont family, Davlan Engineering, and the NTMA St. Louis Chapter. In lieu of flowers, memorial donations may be made to the Affton Education Foundation. Family and friends can review and share stories, photos, and condolences online at www.stlfuneral.com.



NTMA Member Achieves Safety Success with OSHA



Hunting Dearborn, Inc., with over 200,000 square feet of manufacturing and office space, is located in the small town of Fryeburg, Maine.

NTMA member Hunting Dearborn, Inc. provides precision metal manufacturing for oil and gas, aerospace, nuclear, and power generating industries. The company learned of SafetyWorks! Maine On-Site Consultation at an annual Maine Safety conference. In 2008, with rising incidents and recordable injuries, the company reached out to Maine On-Site Consultation for a visit.

During the initial walkthrough, the consultant identified physical hazards associated with machine guarding on production equipment and grinders, as well as blocked fire extinguishers and storage units. A review of the hazard communication program revealed the company needed additional information about non-routine tasks.

Significant improvements were made to all identified areas, specifically with machine guarding and the hazard communication program.

Working with the Consultation program has helped Hunting Dearborn improve its business practices, employee training and feedback, and reporting systems for incidents.

The company also developed more robust programs for air quality and noise monitoring. According to the

company, Maine On-Site Consultation has been of great assistance when unique situations arise in its manufacturing facility. Working with the Consultation program has helped Hunting Dearborn decrease incidents and increase employee morale, management commitment, and employee involvement.

The company was recognized with Safety and Health Achievement Recognition Program (SHARP) status in 2008, and has received renewals every other year since, with the latest renewal in December of 2020. SHARP acknowledges small-and-medium-sized businesses that have used OSHA On-Site Consultation Program services and operate exemplary workplace safety and health programs. Small businesses that achieve SHARP status receive a deferral from OSHA or the state plan programmed inspections for the period that the SHARP designation is valid. Acceptance of a worksite into SHARP is an achievement that identifies the employer as a model for occupational safety and health among its business peers.

Since first receiving SHARP recognition in 2008, Hunting Dearborn has continued to enhance its robust program to provide a safer workplace for its employees. The Total Injury and Illness Rate (TIIR) was reduced from a high of 4.3 in 2007, the year before the first Consultation visit, to a low of 0.0

in 2017. Workers' compensation costs have also decreased significantly in the same time period, with an Experience Modification Rate (EMR) of 0.84 in 2009 and dropping as low as 0.44 in 2016. In 2020, Hunting Dearborn's TIIR was 2.0 with an EMR of 0.75. The company is continually striving to beat its record of 703 days without a recordable incident and 1,169 days without a lost time incident.

Companies interested in SHARP can contact their local OSHA On-Site Consultation program to discuss details and schedule an on-site safety and health evaluation.



To locate the On-Site Consultation program nearest you, call 1-800-321-OSHA (6742) or visit www.osha.gov/consultation.

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New Member Highlights



AERO-MECHANICAL ENGINEERING
Los Angeles Chapter Member

Aero-Mechanical Engineering, Inc. is a three-generation owned and operated business established in 1974, with only a handful of machines and a family mission to be more than the stereotypical job shop. Capabilities and specialized services include complete precision machining from prototype to assembly line.

Over 45 years in business have been dedicated to creating a successful reputation of customer focus and satisfaction so that our customers can rely on Aero-Mechanical as a strategic partner. AME serves a variety of industries including Aerospace/Defense, Energy, Medical, Automotive, Oil & Gas, and many more.

www.aero-mechanical.com



SPARTAN LIGHT METAL PRODUCTS
St. Louis Chapter Member

When Henry A. Jubel founded Spartan Light Metal Products in 1961, he aspired to develop an environment where he could help create value for his customers and share success with his associates by treating them fairly and equitably.

Mr. Jubel believed that machinery and technology weren't going to build the company. Instead, employees with innovative ideas and strong work ethics would put Spartan at the forefront of the die casting industry. Helping customers with their problems was his dedication.

This dedication led to the development of B390 wear-resistant aluminum alloy in 1976. By 1978, these strong core values launched Spartan into an industry leadership position as it became the first company in North America to offer commercial magnesium die-cast products.

www.spartanlmp.com



EKSAPT WORKS INC.
Los Angeles Chapter Member

Eksakt Works Inc., located in Southern California, is a precision machine shop established in 2020. Even though we are a new company, we have 25 years of experience in the machining industry. One of the owners, Tony DeGilio, is a 4-year NTMA Apprentice graduate and experienced first hand what the NTMA can do for its apprentices. Tony was employed by his sponsor company, H & S Enterprises Inc., for over 20 years until founding Eksakt Works Inc. along with his wife Lisa DeGilio.

Eksakt Works Inc. specializes in CNC machined prototype parts, custom fixtures and low volume production for various industries. The Eksakt team understands fit and function beyond the print, with engineer collaboration at the center of our process. We strive to produce quality products on time and are committed to meeting our customer's requirements and exceed their expectations.

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SPACETEC PARTNERS, INC.
Education Institution Member

SpaceTEC Partners, Inc. (SPI), a 501(c)(3) non-profit corporation since 2016, is the parent company of credentialing divisions SpaceTEC, CertTEC, and Credential Testing Services.

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CONGRATULATIONS TO THE NTMA SAFETY AWARD WINNERS FOR 2021

The NTMA's Annual Safety Award Survey is based on the OSHA Form 300A which federal law requires companies with more than ten employees to complete and post visibly in their plant February 1 through April 30 of the year following the year covered by the form.

The purpose of the survey is to present the top-performing companies with an NTMA Safety Award Certificate that can be proudly displayed at their company, as well as provide NTMA the composite data that will allow them to represent the member with

OSHA and other regulatory agencies. Those eligible to receive this award are among the best in the industry! Please join the NTMA in congratulating these NTMA members on receiving the award for their company's excellent safety performance!

Akron Chapter:

- Colonial Machine Company
- H & H Machine Shop of Akron, Inc.

Arizona Chapter:

- Continental Precision, Inc.

Boston Chapter:

- AccuRounds, Inc.
- Boston Centerless
- Fitz Machine, Inc.
- M & H Engineering Company, Inc.
- O-D Tool & Cutter, Inc.

Cleveland Chapter:

- AJ Rose Manufacturing
- Cardinal Machine Company, Inc.
- Component Repair Technologies, Inc.
- Criterion Tool & Die, Inc.
- Fredon Corporation
- Jergens, Inc.
- Trec Industries, Inc.

Connecticut Chapter:

- Horst Engineering & Manufacturing Co.
- United Centerless Grinding & Thread Rolling

Florida West Coast Chapter:

- Southern Manufacturing Technologies, Inc.

Houston Chapter:

- The Lloyd Company

Indiana Chapter:

- Allied Specialty Precision, Inc.
- Boyer Machine & Tool Co., Inc.

Michiana Chapter:

- Ruco, Inc. dba Regal Mold & Die

Milwaukee Chapter:

- Fox Valley Tool & Die, Inc.

North Texas Chapter:

- Alexandria Industries

Northern Utah Chapter:

- JD Machine Corp.

Northwestern Pennsylvania Chapter:

- Area Tool & Manufacturing, Inc.
- Highpoint Tool and Machine
- Kuhn Tool & Die Co.
- Precision Profiles, LLC
- Ripley Machine and Tool Company
- Starlite Diversified, Inc.

Philadelphia Delaware Valley Chapter:

- BLUSA Defense Manufacturing
- Brewster Washers
- Golis Machine, Inc.
- Ruoff & Sons, Inc.

Pittsburgh Chapter:

- Ace Wire Spring & Form Co., Inc.
- Global Incorporated
- Hamill Manufacturing Company
- J. V. Manufacturing Co., Inc.
- Jatco Machine & Tool Co.
- Stellar Precision Components

Rock River Valley Chapter:

- F.N. Smith Corporation

Rocky Mountain Chapter:

- DKMM, LLC
- Frontier Metal Stamping, Inc.
- Mountain States Automation, Inc.
- Reata Engineering & Machine Works, Inc.

St. Louis Chapter:

- Mueller Machine & Tool Company, LLC

Western Massachusetts Chapter:

- Mitchell Machine, Inc.
- Pilot Precision Products

Central At-Large:

- MetalQuest Unlimited, Inc.

Eastern At-Large:

- Precision Grinding & Mfg. Corp.

Southern At-Large:

- Cox Manufacturing Co., Inc.
- Gibbs Die Casting Corporation
- Whistler Machine Works
- Win-Tech, Inc.

Western At-Large:

- A-1 Machine, Inc.



NTMA SERVICE AWARDS 2021

NOW ACCEPTING NOMINATIONS

The Service Awards are given out each year at the Manufacturing Engage Conference. We need your help finding the best candidates for these awards.

Award categories are:

MEMBER AWARDS

HONOR AWARD

Nominate a member for continuing meritorious service and dedication to the industry and/or the Association by a regular member; traditionally awarded for longevity of service in dedication, as opposed to a single act or service in a short-time industry or Association position.

L.A. SOMMER MEMORIAL AWARD

For outstanding and continuing service of the highest magnitude; emphasis is placed on service to the Association by a regular member, both of the highest order and over a period of time, connoting excellence in a particular role in NTMA, rather than as a participant in a single event.

WILLIAM E. HARDMAN AWARD FOR EXCELLENCE IN TRAINING

For a company or individual (regular member or education member) which consistently demonstrated strong support and active participation in structured training for the precision custom manufacturing industry.

NON-MEMBER AWARD

DISTINGUISHED SERVICE AWARD

For outstanding service to the industry by a person outside the NTMA regular member companies.

Help us recognize deserving individuals and/or companies that have supported and advanced the industry and the Association.

Submit your nomination(s) by August 11, 2021

For a nomination form, contact Linda Warner at lwarner@ntma.org

SCCAP and EFSC to Launch Advanced Machinist Apprenticeship Cohort

By KAMM Consulting, Inc.

The Space Coast Consortium Apprenticeship Program (SCCAP) – an industry-driven apprenticeship sponsored by SpaceTEC(r) Partners Inc., in partnership with education partner Eastern Florida State College (EFSC), and led by advanced manufacturing companies operating on Florida's Space Coast, today announces the launch of the first cohort of Advanced Machinist apprentices. Participating companies include Knight's Armament, Blue Origin, Diamondback America, and Precision Shapes.

Under the program, ten SCCAP Advanced Machinist apprentices will begin the two-and-a-half year State of Florida registered program during the summer semester starting May 17, 2021, attend academic coursework and hands-on lab training at the EFSC Cocoa Campus for two nights a week and will also work full time on the manufacturing floors of participating companies. By mixing classroom learning with on-the-job-training, SCCAP apprentices learn real, immediately marketable skills and earn stackable credentials, including National Tooling and Machining Association (NTMA) and National Institute of Metalworking Skills (NIMS) credentials, a State of Florida apprenticeship certificate, and credits that apply towards a two-year EFSC Associate's degree in Engineering Technology.

The Advanced Machinist occupation is the second of three apprenticeship occupations supported by SpaceTEC, SCCAP, and EFSC. SCCAP officially launched the first cohort of the Mechatronics Technicians in August 2019 following a formal signing ceremony attended by Florida Governor Ron DeSantis, EFSC President Dr. James Richey, Space Florida President and CEO Frank DiBello, and Director the FL DOE Office of Apprenticeship Richard (Ted) Norman. Participating companies in this initial program included OneWeb Satellites, RUAG Space USA, Knight's Armament, and Rocket Crafters (now Vaya Space). These seven apprentices are now in their second year of the program and are expected to complete it in January 2022.

SCCAP is currently in the recruitment phase to launch its second cohort of Mechatronics Technicians in the fall semester, starting in August 2021, with an expected cohort size of seven apprentices. A third SCCAP registered occupation, Fiber Composite Technician, is scheduled to launch during the fall semester starting August 2021, also with an expected cohort size of seven apprentices.

By the fall semester of August 2021, if recruitment for all programs is successful, SCCAP will attain a total of at least 30 active apprentices in the three occupations.

"The Space Coast is an area where apprenticeships and other work-based learning programs are critically essential for the future health of our economy," said Bryan Kamm, Founder and Lead Consultant. "With the onset of COVID last year, our Space Coast industries have recognized the need more now than ever to reshore manufacturing and to develop a stronger and more reliable national supply chain of essential products to support our local industries. Our goal at SCCAP is to maintain the highest level of advanced manufacturing Industry 4.0 competitiveness in our workforce to offset any future economic, health, or national security threats wherever possible."

"The manufacturing sector has a well documented skills gap," says Art Hoelke, SCCAP Chair and VP and General Manager of Knight's Armament. "As a growing number of Americans retire, they take decades of experience and knowledge with them. I am very thankful that our country and its leaders understand the importance of training apprentices in the trade sector. Training presents a prime opportunity to expand the knowledge base for all, leads to better work processes, and is an indispensable way to stay competitive. Having a high quality and comprehensive apprentice development program enables us to strengthen the skills of our workplace and build knowledge where it is lacking. Our country has a pronominal bipartisan support system that makes this a success. From our local industry, to our



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wonderful educational partners at Eastern Florida and Brevard Public Schools, our Economic Development Commission, and CareerSource, who all wholeheartedly support these efforts and truly understand how important it is to help our community."

"Education and training beyond high school is required to be competitive in the modern workplace. Apprenticeship programs are an excellent alternative pathway for individuals to avoid college debt and receive high quality training. Employers earn the loyalty of their employees by investing in their futures as well as their own," says Frank Margiotta, Associate Provost of Advanced Manufacturing, Eastern Florida State College.

"Due in part to the shortage of skilled labor locally to support world-class manufacturing and the cost of importing these workers, it is imperative that companies have a means of producing talent locally. SpaceTEC is proud to support the SCCAP and EFSC in this endeavor," says Steve Kane, Executive Director of SpaceTEC Partners, Inc.

The Space Coast Consortium Apprenticeship Program looks forward to an exciting future and encourages any local companies looking to develop an advanced manufacturing workforce pipeline to join them in their mission. Interested companies or potential apprentice candidates are welcome to contact **Bryan Kamm** at bryank@bkammconsulting.com or **Steve Kane** at stevekane@spacetec.us for more information.

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Announcing New Additions to the AMPED Board



Glenn Yamasaki

For almost 30 years, Glenn Yamasaki has inspired students to study, create, and cooperate with classmates at Downey High School in Downey, CA.

He earned a Bachelor of Science degree in Aerospace Engineering from Northrop University. Adding to an array of accolades collected over the years, Mr. Yamasaki received the California Project Lead the Way Teacher of the Year Award and the American Institute of Aeronautics and Astronautics Coaches Award in 2013.

As a certified Project Lead the Way educator, a STEM instructor for all four grade levels of Warren High, and a club advisor, Mr. Yamasaki's educational ideals hold true throughout. He strives to assist students in relating to the curriculum through personal connections.

He explains, "My experience is that students understand best when they can personalize the material. The main objective is to help students relate to what they already know and then build upon that foundation." Mr. Yamasaki believes that once his students learn to analyze and think critically and independently, they are enabled to reach solutions to problems in both engineering and their daily lives.



Stephen R. Catt, Ed.D.

Committed to creating a talent pipeline that fulfills current and future workforce needs in the United States, Dr. Catt brings experiences in serving industry training needs through business, industrial, and safety training through the community college system. He has also taught organizational leadership at

the Master of Science level and served numerous businesses through specific consulting applications. After beginning a career as a science/math elementary teacher, then working in a national distribution center, he progressed in a community college creating a Workforce Development department and bringing in over \$10 million in grant funding.

He helped lead efforts to transform the U.S. workforce through ARM, Advanced Robotics for Manufacturing, and Manufacturing USA Institute as the Deputy Director for Education and Workforce Development. After consulting for Thomas P. Miller and Associates, he now freelances to advance the future of our workforce.

Recruiting and training the next generation is the biggest problem our members face. This includes not only bolstering skills for young professionals who could thrive in our industry, but training our existing workforce and allowing their own careers to grow further.

AMPED, a new 501(c)3 organization was formed by NTMA to create a unified effort to Engage, Inspire, and Prepare America's Precision Manufacturing Workforce. Led by a highly motivated and diverse group of professionals to attack this mission with vigor, AMPED is focused on promotion and recruitment activities, as well as directing interested parties to education and training programs across the country.

New Executive Director Announced



We are proud to announce that Bill Padnos has been promoted to serve as the Executive Director of AMPED and the National Tooling & Machining Foundation.

NTMA has benefited from Bill's passion for manufacturing workforce development through his leadership of the NRL and recently, NTMA-U. He

believes in AMPED's mission to inspire, attract, and prepare the U.S. precision workforce – and hopes to bring that same passion in working with the NTMF Board in raising funds to support programs and projects that educate and build manufacturing skills, while increasing awareness of the benefits of working in industry.

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Rebuilding and Reshoring: What Can Contract Manufacturers Do?

by Harry Moser, Founder and President, Reshoring Initiative

U.S. import volume is about 130% of domestic production. A widening skills gap, underinvestment, weak marketing, and a narrow scope of core competencies threaten the growth of U.S. manufacturing.

These challenges must be addressed so companies can thrive and meet goals for growth. The United States must have a larger skilled workforce with properly aligned skills and increased capital investment to foster innovation and boost competitiveness. Individual companies and the U.S. manufacturing ecosystem, as a whole, would benefit from an expanded range of core competencies to broaden business offerings and increase strategic advantage. In order for the United States to compete globally, companies must resolve these problems and commit to becoming more self-sufficient, resilient and agile.

Apprenticeship programs and ongoing training executives report that the insufficient quantity and quality of recruits negatively affects their ability to meet customer demand, maintain or increase production levels, and implement new technologies to achieve productivity goals, thus slowing growth and impacting earnings. Postsecondary education and training is becoming increasingly important to skills alignment and building the national talent pipeline. A recent Brookings study showed 67%

of jobs require some postsecondary education/training, not necessarily at a 4-year college. The most promising education/training for learners and the U.S. economy is job-focused postsecondary education and apprenticeships.

CONSISTENT INVESTMENT

Consistent investment in equipment and technology, even in tough times, will drive competitiveness and productivity. Investing much less than our offshore competitors hinders U.S. companies' long-term growth and the growth of the U.S. economy as a whole.

DEVELOPING BROADER COMPETENCE

Our reshoring cases show that 67% of work was outsourced when offshore while only 13% was outsourced once it was reshored. A lack of broadly competent contract manufacturers is a significant barrier to increased reshoring. Within your target industry, shops should produce more of a complete product, more value added. Most U.S. contract manufacturers are competent in narrow ranges, e.g. molding, machining, casting, wire harness, small consumer electronics, etc. In contrast, many Chinese contract manufacturers will take on a complete complex product, even a major appliance and carry it through from design to packaging. Developing contract manufacturers

of broader competence will require more industrial engineers/toolmakers and a large, flexible workforce that can be applied rapidly and effectively to each project.

Developing domestic outsourcing capabilities is paramount because many U.S. companies' core competencies no longer include manufacturing. Re-establishing domestic manufacturing competence will bring back associated innovation capabilities and jobs.

MARKETING

Use reshoring as a marketing tool and communicate how you can help customers do so. For example, many companies have outsourced offshore and do not know the production process details of their product. Offer to develop and document all process details in exchange for an extended contract. Promote your reshoring successes and support of the reshoring transition. For example, The Rodon Group® offers reshoring assistance to customers who want to begin sourcing in the United States. Develop a specialization or achieve economies of scale and market to that industry. Be the best at a few products.

Consistent investment in equipment and technology, even in tough times, will drive competitiveness and productivity.

Re-establishing domestic manufacturing competence will bring back associated innovation capabilities and jobs. Tough times will drive competitiveness and productivity.

The most promising education/training for learners and the U.S. economy is job-focused postsecondary education, collaboration with employers, and apprenticeships.

DEMONSTRATE THE ADVANTAGES OF LOCAL SOURCING

Companies that have reshored have reported the problems that drove them to come back. Be sure your behavior makes clear that the customer can overcome these problems by reshoring to you:

- **Quality:** Required.
- **Delivery:** Achieve shipments much faster than offshore competitors, including shipment.
- **Inventories:** Offshore wants to ship full containers. Provide JIT.
- **Communications:** Offshore is 12 hours out of phase. Respond to emails and calls within minutes.
- **Green:** Document the green advantage of local sourcing.

RESHORING RESOURCES

Programs like the Import Substitution Program (ISP) help accelerate reshoring. ISP identifies and qualifies major importers of what you produce and helps you to convince them to source or produce more domestically instead. MEP's (Manufacturing Extension Partnerships) can provide consulting on lean workforce training, automation, etc. to close any cost gap.

USING TCO FOR SELLING VS. IMPORTS

When you find yourself competing with a lower priced offshore product, we suggest offering to help the customer compare the TCO of your offer vs. the lower priced offshore offer. Contract manufacturers can use the Total Cost of Ownership Estimator® (TCO) to make a strong case when selling against offshore competitors (see the related article titled "TCO" Defined). Sixty percent of companies make sourcing decisions based on rudimentary metrics such as wage rate, ex-works price or landed cost, often resulting in a 15 to 30% understatement of actual offshoring costs. The TCO Estimator is a free online tool that helps companies account for all relevant factors—overhead, balance sheet, risks, corporate strategy and other external and internal business considerations—to determine the true total cost.

\$60 MILLION ORDER—SELLING AGAINST IMPORTS

Here is a real world example of a company that used TCO to sell against imports. EMS contract manufacturer Morey Corporation was in pursuit of a \$60 million (\$15+ million per year for four years) electronics build opportunity vs. a lower priced Asian competitor. Morey, helped by the Reshoring Initiative®, used the TCO Estimator

to show the customer that although Morey's price was higher, its TCO was lower. Tony Woodall, VP of Sales, reported, "We used the TCO calculator from the Reshoring Initiative. This tool framed the costs and risks of both options and was a crucial piece of our winning strategy." The Reshoring Initiative's tools and data can help contract manufacturers sell against imports. Resources can be found on the website (www.ReshoreNow.org).

It's time to help OEMs do the math. Choosing U.S.-based manufacturing supports employees, suppliers, local communities and the national economy while increasing profitability.

WHAT ELSE CAN CONTRACT MANUFACTURERS DO?

Share their reshoring success story. If you have reshored, or helped your customer reshore, please submit your case to Harry Moser at harry.moser@reshorennow.org. Let's keep the momentum going.

Based on an article first posted in IMTS 2020's **Rebuilding and Reshoring series**.

Total Cost of Ownership (TCO) Defined

The Reshoring Initiative's TCO Estimator is a free online tool that helps companies to account for all relevant factors to compare the true total cost of domestic and offshore sourcing and siting. These factors include overhead, balance sheet, risks, corporate strategy, and other external and internal business considerations. Using this information, companies can better evaluate sourcing, identify alternatives, and even make a case when selling against offshore competitors.

The Metrics of TCO

About 60% of companies make import decisions based on price instead of TCO. The percentage of the cases that the U.S. wins increases from 8% based on price, to 32% based on TCO to 46% if a 15% Trump tariff applies.

Using TCO for Selling vs. Imports

Use the TCO Estimator to make a strong case when selling against offshore competitors. Most companies make sourcing decisions based on rudimentary metrics such as wage rate, FOB price, or landed cost. As a result, they are offshoring work that should be produced domestically. By helping the companies see the potential profitability improvement by using TCO, you create sales opportunities and enable reshoring.

Buyers use TCO to assist in their evaluation of sourcing options. Domestic suppliers use TCO as an objective sales tool to help buyers quantify the advantages of domestic sourcing. For example, we helped an Illinois printed circuit board contract manufacturer win a \$60 million order vs. a Chinese competitor by showing the customer that the Illinois supplier provided the lower TCO even though it had the higher price.

Other Tools Available

The Reshoring Initiative's Import Substitution Program (ISP) can provide leads to importers that you can sell to using TCO. Please visit our website (www.reshorenw.org). Our mission is to help you and your customers reevaluate offshore vs. domestic sourcing and make the right decisions. If you use TCO, some of those decisions will favor reshoring.



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Inventory Must Do's: For Small-to-Medium-Sized Manufacturers

By Adam Grabowski, Director of Marketing, Global Shop Solutions

CASH IS KING FOR MANUFACTURERS — FROM THE OWNER DOWN TO THE MACHINE OPERATORS.

If you visit any manufacturer, you will see most have a keen eye on how everything is being used. Machines are generally only running if they are making parts; employees are typically only working if orders are coming in; and scrap is examined carefully to determine “How did this happen? How can we prevent it from happening again? What else can we do with this?”

EVEN THE BEST MANUFACTURING OWNERS MAKE MISTAKES

But rarely do they make the same mistake twice. If you ask them what some of their biggest mistakes have been, they are often tied to how their inventory was managed. Meaning, that was in the past and today they are doing something different.

What is different?

After speaking with many manufacturing owners and many subject matter experts, the “different” is their business is choosing to live and die by the following 3 inventory must do's with the help of ERP software.

1. Clear Out The Inventory Garbage.

What does this mean? It means you must process your inventory correctly and consistently with no exceptions. Your inventory processes should be documented and employees trained, retrained, and trained some more; and you should have absolute consistency in your product lines, units of measure, etc. Documenting your process also means knowing explicitly who owns what including inventory master, inventory costing, and inventory quantity. Everyone should know what they

are doing, when, why, and the consequences of it being done incorrectly. And don't let the fox guard the henhouse. The employee responsible for transaction processing cannot have access to inventory adjustments. A few hours spent training employees will save you money and heartache (and maybe even a lost customer) when you try to make a part with inventory you don't have. Clear the garbage out of your inventory process, and you will be left with a much better result.

2. Regulate Your Inventory Counts

Physical inventory or cycle counts should always be performed on a regular basis and produce accurate numbers. By implementing regular inventory counts, this allows you to consistently ensure inventory accuracy throughout the year. We've found that our customers complete this in one of two ways. The first being they cycle count daily or weekly, which means they count parts based on usage or dollar amount to verify their inventory is correct. If their numbers are getting adjusted, that means their inventory is off, and they must figure out what inventory transactions are causing the issue.

The second way our customers regulate inventory is by doing physical inventory, which calls for shutting down the shop floor and counting the inventory one weekend a year, sometimes two. To learn more about this, download subject matter expert Brady Steven's white paper titled “How to Achieve Perfect Physical Inventory in 10 Easy Steps.” It is a great, superfast read that is likely to save you thousands of dollars a year.

3. Record Your Inventory Flow. You are what you eat.

As inventory is consumed or shipped, it needs to be recorded. Some of our customers manage this process

with one person, a team of people, or they let their machinist move the parts. It's entirely up to you, and you can decide who manages that process based on how skilled your employees are and the type of material.

THE INVENTORY FLOW PROCESS IS AS FOLLOWS:

1. Issue Material to Work Order
2. Bin-to-Bin Transfer
3. PO Receipts
4. WIP (Work in Progress) to Finished Goods
5. Location Transfers

You also have the option of backflushing and Auto WIP should you choose. If you make it to the last step and you have 10 good parts, then 10 parts are WIPed into inventory (finished goods). Spend a few minutes every time and record inventory flow immediately, and you'll save yourself hours in the long run.

Adam Grabowski is the Director of Marketing at Global Shop Solutions. He is responsible for translating the company's business objectives into successful brand, marketing, and communication strategies to drive awareness, revenue, and loyalty.



To learn about even more inventory must do's for small- to- medium-sized manufacturers, call 1.800.364.5958 or visit www.globalshopsolutions.com

5 Ways to Mitigate the Lack of Skilled Machinists

Paul Van Metre, Founder, ProShop ERP



I don't know a single CNC machine shop that has an easy time hiring machinists or would say they have enough well qualified candidates.

The fact is that there is more demand than supply, with not enough young people coming into the industry to fill the positions that are needed by machine shops today. On one hand, it's great news in general, that the demand for machinists is strong.

Onshoring seems to be a longer-term trend now and the demand for machined parts in North America is strong, which is fantastic. The shadow side is that it's tough to find machinists and most shops feel that pain, which inhibits their ability to grow at the pace they could theoretically if hiring was not a problem. Because this problem isn't going away anytime soon, it comes down to the effort of each shop to tackle this issue themselves. When creative thought is put into the issue, many things can be done to mitigate the problem of not being able to hire qualified machinists whenever a shop wants to. Let's discuss some of the things that our shop did, and what I've seen at the hundreds of shops that we serve.

1. Get Involved with Schools in Your Area

Every state has trade schools or even high schools with machining programs that are constantly teaching basic machining and programming skills to new

students. These are a great source of new hires on an ongoing basis. Every year they will graduate a cohort of students who are eager to get into the machining trade and are like sponges looking to learn (and without any bad habits yet!). The quality of the programs vary from school to school, but the great news is that you can get involved in the program and help to make it better, also making it more likely that you can hire the cream of the crop each year. It's undeniably a win-win situation.

Ways to get involved vary from donating materials, tools, or even old machine tools, to offering tours of your shop as a field trip for the students, to even getting a seat on the advisory board of the program. You might even support a school in a STEM competition like the National Robotics League to provide some project-based, real-world manufacturing experiences and develop long lasting connections with the teachers and students.

The more engaged you are, the more your company will benefit from the collaboration. When we ran our shop, we had two employees on the advisory board all the time. We donated used, but still totally good, cutting tools, raw materials, and advised on how they could make their program more current to serve the needs of shops like ours. And we often hired recent graduates – the best and brightest ones too! It is certainly a formula that works.

2. Develop a Robust Training Program for Your Own Staff

Whether you're hiring recent high school or technical school graduates, or employees with more experience in the trade, you'll need to provide more training on an ongoing basis to make the most of your employees. We suggest starting with well-defined job titles, with detailed roles and responsibilities, and pay ranges that go along with those titles. Once the basic framework is in place, you can outline what skills and proficiency ratings (try a simple 1-4 system, from basic knowledge to expert) are needed to be considered trained in each position. From there, you can define a set of training topics to teach those skills. Once that is all in place, it should be possible for a new hire to see exactly what they would need to do to get the training they need to progress up to the higher levels of responsibility and pay in the company. Creating videos is a great way to provide the basics for each training that employees can watch on their own time. Identifying who in your company can provide training beyond the basics will help to spread the load of doing this work. There are also programs like NTMA-U, ToolingU.com, and NIMS that can be used to provide training to employees. With that, and training from software and tooling vendors, along with YouTube, there is almost limitless content that is free or inexpensive to help develop the skills of your team. By providing these segments of training, you'll be less

dependent on finding employees who already have the skills needed for the job. You can focus on hiring people who are a great cultural fit for your company and train the skills you need them to have.

3. Let the World Know You have an Awesome Company to Work For

Just like you should always be selling your services to new prospective clients, you should always be selling your company to prospective employees. Build a fun team web page that highlights your amazing team members, events, volunteer work, benefits, work environment, and more. Most companies call their employees their greatest asset, so shout it from the rooftops to attract more people like them. You'll stand out from the crowd and be able to recruit more easily.

4. Build a Genuinely Amazing Culture

To have a great website page about it, you actually need to have a great culture! A culture that is focused on the growth and success of your team and your customers. One where people feel safe, supported, respected, understood, and I'd go as far

as to say, loved. It's essential to build a company culture like that. Build systems people will love, like training sessions, frequent one-on-one meetings, offer tuition reimbursement, consider profit sharing, open-book management, free food and drinks at work, or whatever else will thrill your employees. The machining industry is relatively small in most regions, and word will get out about your work culture. Machinists know other machinists who work at other shops. When they rave to their buddies about how much they love your company, you'll find yourself with qualified machinists knocking on your door.

5. Invest in Technology and Systems to Mitigate the Risk of Less Skilled Staff

It would be great if you could hire an unlimited number of highly skilled and experienced machinists that could set up any job, troubleshoot any problem, and make perfect parts, quickly, every day, but that world doesn't exist. You need to be able to successfully run your shop with a variety of skilled staff, some with medium skills, and many without a lot of skill and experience (yet). This reality relies on systems and technology to get work done and

allows a wider variety of employees to successfully execute jobs on budget. This often comes down to eliminating tribal knowledge, providing really clear visual work instructions, easy-to-follow checklists, and other initiatives to allow less skilled workers to be successful. By doing so, it's very possible to dramatically mitigate the reality that you can't find enough skilled and experienced machinists.

Lack of skilled machinists is a reality we all live with, and it's not going to improve anytime soon. But with some creativity, hard work, and smart decisions, you can significantly minimize the impact it has on your company, and possibly even make this formula your secret weapon for success in scaling your shop and achieving your business goals.

Paul Van Metre is a Co-Founder at ProShop ERP - a revolutionary software for small to medium manufacturing companies to help them realize considerably more profit and throughput with far less frustration. The software includes all the traditional functions of ERP, MES, and QMS - and ProShop takes an intimate approach to helping customers implement and realize improvements in their business.

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NOUN

profit | \ 'pra-fet' \

- 1) a financial gain, especially the difference between the amount earned and the amount spent in buying, operating, or producing something.

Focusing on Profits

By Michael Watkins, MBA/JD, EBITDA Growth Systems

This is a definition right out of a dictionary. From our vantage point, profit is so much more – it is the reward that one should expect for taking on an entrepreneurial risk. The business owner should expect to generate a profit each and every month; otherwise, the enormous risk associated with spending money on labor, materials, tooling, third party processes, and overhead is simply not worth it.

It is amazing how cavalier many small-to-medium-sized machine shop owners are about profits. There is a much greater emphasis on revenues even though a wise man once said “you can’t buy groceries with revenues” – you need profits. It is as if they are unaware of the risk/reward relationship that should define the entrepreneurial pursuit. Profit is the oxygen that you breathe at every stage of the business lifecycle; whether it is the startup/growth phase, the sustain phase, or the exit phase.

A machine shop that is in the startup/growth phase is typically characterized by an owner that is working in the business producing work product for one or two anchor clients and is experiencing a perpetual cash crunch. It is important to note that many companies do not get beyond the startup/growth phase. They don’t generate the profits necessary to obtain third party financing for new machines and they don’t generate the working capital (cash flow) necessary to purchase materials and meet an escalating payroll. The result is the owner will have basically purchased

themselves a job and that is about it. Michael Gerber, the author of *The E-Myth* says that this is a terrible place to be, but that every company must go through this stage.

A machine shop that is in the sustain phase is characterized by an owner that has others that are producing work product for a diverse roster of clients. The sustain phase is a great place to be because the enterprise is delivering monthly profits. If you are curious as to whether your shop is in the sustain phase, you should be able to say yes to three important questions:

1. Can your shop sustain itself for two weeks without you?

In other words, have you staffed critical roles with managers that are capable and empowered to make good decisions in your absence?

2. Do you manage your company with timely and accurate financial statements?

In other words, do your financial statements tell you enough of a story that you know which lever to pull to maintain your profitability targets?

3. Does your company generate enough cash flow to pay you a competitive wage, fund your workforce and management team, and yield double-digit profits?

As you can well imagine, if you can answer yes to these questions, then your business truly is sustaining itself.

The exit phase should simply be an extension of the sustain phase. Owners that make it to the sustain phase have wonderful exits. The reason is quite simple – the most popular way to value a company is to apply a multiple to EBITDA (profits). For example, a machine shop that is in the sustain phase and has maintained EBITDA of \$1M over a three-year period could receive a valuation of four times EBITDA, or \$4M. If you are a machine shop owner that makes it to the sustain phase, the exit phase will just naturally come to you. Get lost in the startup/growth phase and the possibility of an exit phase becomes a much greater challenge.

People come to the United States from all over the world to chase the American dream. The American dream of fame and fortune is believed to be achieved through sacrifice, risk-taking, and hard work, rather than by chance. So, let’s focus on profits in the pursuit of our own American dreams.

EBITDA
GROWTH SYSTEMS

Economic Outlook – Looking at Future Drivers

- Much like in the past year, the impact of the virus and the vaccine rollout will determine the path forward and remain the focus for investors. Promising data is emerging on the effect of the past few months' vaccination efforts, while at the same time, we are seeing some economies having to pull back from reopening. This will likely be the case for the next few months, but it does not alter our view that the latter half of 2021 should be strong for economic growth.
- The future level of interest rates will continue to be a driver for equity markets. Although the Federal Reserve Board (The Fed) is not expected

to make any changes in monetary policy until 2023, investors are becoming increasingly concerned over inflation pressures leading to higher rates and a sudden change in The Fed's stance. Higher rates are a function of stronger economic growth, but the potential level of inflation needs to be factored in as well.

- Earnings season kicks off in early April and as of now, the estimated earnings growth rate for companies in the S&P 500 according to FactSet is 23% compared to last year. This would be the highest since Q3 of 2018.

- Advanced estimates for Q1 2021 U.S. GDP growth will be released on April 29. Current estimates for growth in the quarter, according to the Atlanta Fed GDP tracker, could see growth as high as 6%.



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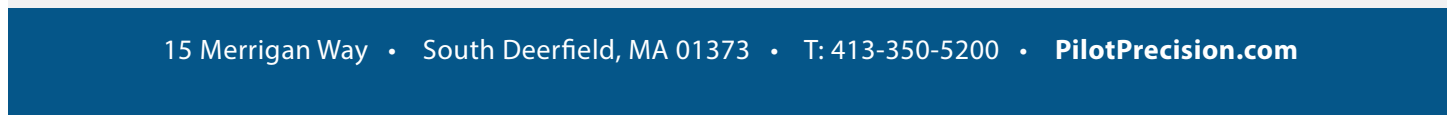
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What Did You Expect to Happen? Get the Result You Expect From Your Marketing Campaigns

By Rob Felber, Owner & Marketing Executive, Felber PR & Marketing

Simple question, with a not-so-simple answer. We ask this question to our customers and prospects alike, and the answer will surprise you. As manufacturing companies build their marketing plans, they use email marketing drip campaigns, industrial public relations, inbound content marketing, and advertising tactics. Now, you might be thinking the answer is sales, and you would be right if you connect the dots. The problem is the dots or “steps” in your plan are disconnected.

Do you know what to expect when, and how it will be measured? Knowing what success looks like and what you expect will be critical nine months from now when you are asked in a meeting, “is your program working?”

Major Tactics and the Most Common Gaps in Each Campaign

Email campaigns are still one of the most used and effective in modern marketing. You control the content, whose buyer persona you are targeting, and the result you want to happen. With most contract manufacturers, your sales cycle is long, 12, 24 even 48 months in some industries. Email marketing lets you maintain a relationship with your prospect, impart expertise to make your case, and, at the end of the day, measure engagement. Engagement is your window into who is interested and who is not inside your CRM. With reporting, you can measure who is active, who is reading your emails, visiting your website, downloading your technical papers, and even reading the quotes you sent. Engagement is the measurement on the path to sales and answers what we want to happen by this activity.

Industrial public relations are often one of the most misunderstood tactics. We hear “We just want to make a splash. We want prospects to know our name,” OR “We want to send a press release.” OK, why? I ask again, what do you expect to happen when you send a press release? Most manufacturers think a press release is an article – it is not. Or, the simple tactic of sending a release drives the sale – again, no. Getting coverage in a coveted trade magazine, with a high circulation that matches your target audience, is the first step.

That said, the purpose of a press release is to get the attention of the editor so that they consider writing about your company. A more direct approach is pitching proprietary case studies to a publication. A case study, prominently featured, drives interest and website traffic. This is the dot you are looking to connect. The measurement hence is a lead capture structure inside your website that gathers the lead information. Then (see email marketing above), you can begin the process of engagement leading to the ultimate measurement, that elusive sale. One note of caution – public relations is a long-game tactic. With editorial cycles and magazine issues planned months in advance, you need to be ready for the success that is measured in years, not weeks.

Inbound content marketing is the process of drawing prospects to your company through content they want to read. Content that solves their problem. Here, drafting content about your products and services, highlighting the problems you solve is key. One of my favorite responses to “Our prospects are not on the internet or our business is just so niche” is Engineers worth their salt and under 40 Google everything. And, these engineers are not at their desks; they are on the manufacturing floor, solving problems, and

searching the internet from a device. Wouldn't you want to be the solution they see first? Like public relations, this content strategy needs to have a system to capture these leads and begin the measurement process. One of your dots can be more leads and measurement here is easy. Read: *Why Manufacturers Need a Content Map for Inbound Marketing Success Now*, and you can answer the question of why you are researching, writing, and publishing content on your blog. Justification of your spending on content generation is easy when you can show the leads and sales generated.

Advertising (print, pay-per-click, paid social) comes in as many facets as there are ways to spend your budget. With leads and engagement in mind, now that you have seen the rationale above, advertising can yield immediate results. All ads can impact name recognition, elicit a response, and uncover hidden needs with your prospects. LinkedIn paid social ads for example generate leads in real-time (very measurable). Imagine calling an interested prospect within minutes of their response. This is what is supposed to happen in advertising campaigns – lead generation.

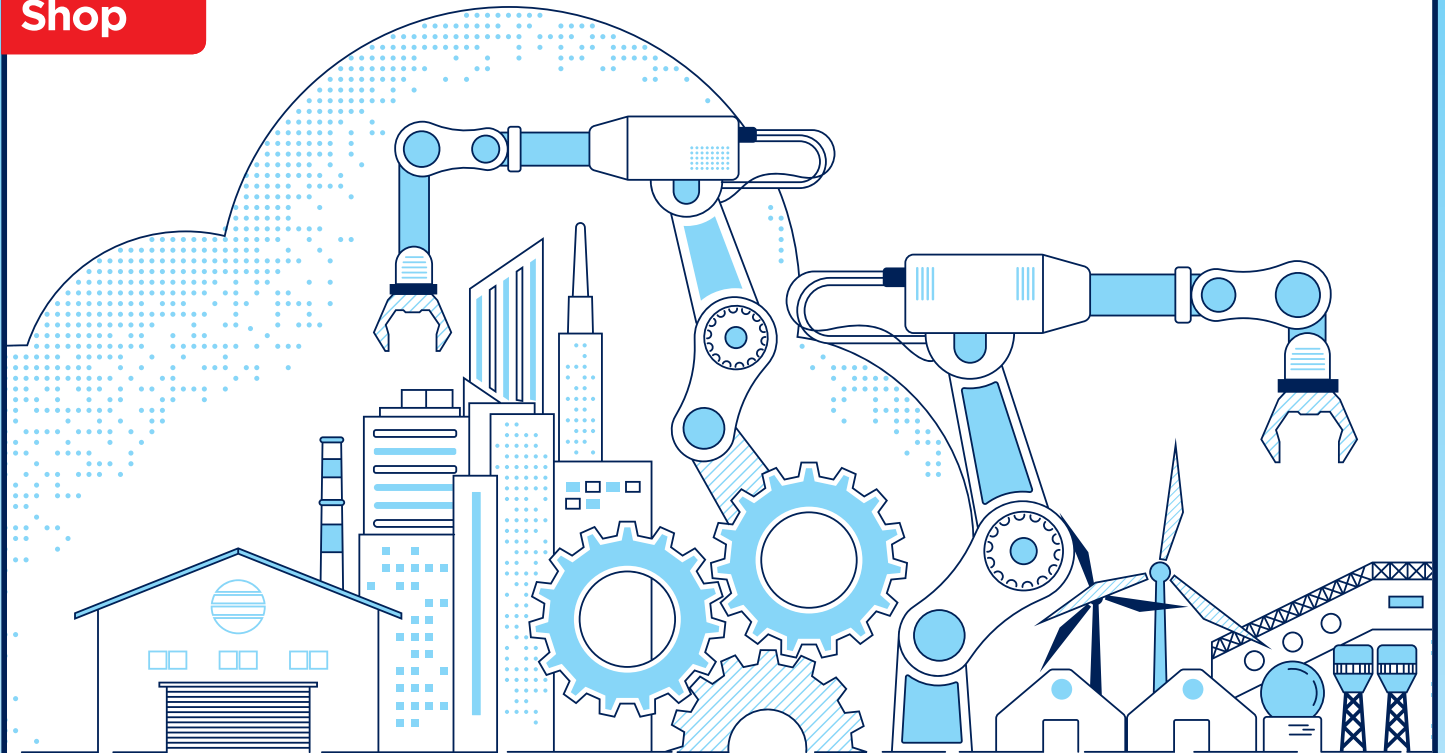
See this article *Why Manufacturers Should Invest in Digital Advertising Right Now* and learn why digital advertising is very relevant in the no-trade-show-pandemic world we're living in currently.

The dots in this process include voice of customer assessments, copywriting, graphic design, photography, and video – all the tools an advertising campaign needs. This should help you support your budget request, as you can show the results.

Call Rob Felber - (330) 963-3664 - or email RobFelber@FelberPR.com to discuss your marketing plans for the remainder of 2021.



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Training: Cost or Investment? Part 2

By Tom Sothard, NTMA Executive Committee Member

NOTE: This article is a continuation from the April 2021 Record – visit www.ntma.org to view the digital edition.

I can't emphasize enough the importance of finding the right attributes when hiring. One of the greatest costs is employee turnover; not just your up-front recruiting expense, but the cost of the ripple effect, in aspects like reworks and fixing poor quality, just to name a few. However, if it's an ineffective or poor leader, the costs are even greater.

When you start with the right person with the attributes required to be successful in your company – and then invest in their development – it will bring a positive return on your investment. If you don't invest in their development, they may find another company willing to invest in them or they can jump for money, what do they have to lose?

Over my career I have interviewed a lot of people, and of those that are still employed, I always ask: Why do you want to leave your current company? The top two reasons? A lack of company investment and a lack of opportunities to grow. Even though this may not be the reality, it's the employees' perception. How can we change their perception? Invest in them! Good people want to work with companies who are willing to invest in them; they want to have opportunities to advance and contribute to a company's success.

Training is the equivalent of machine maintenance for your human resources. Your return on investment in people will be immeasurable - improving things like turnover, quality cost, customer retention, and more. Conversely, no training, or training the wrong person, will cost your company money, customers, and create inevitable turnover.

The success of our company has been realizing that the two most important assets we have are our employees and our customers. Employee training and development became a part of our DNA and was no longer looked as a cost but an investment that had a positive return in all aspects of our business. A by-product was that our employees became some of our best recruiters, helping us gain the employees we needed for that growth. Much like customer testimonials are the best way to get additional customers, happy employees help recruit good people to your company – huge for hiring in today's climate!

Ok - This Sounds Good, But Where do We Begin?

Tom Sothard's Tips on Develop Leaders Within a Company

1. You need leaders in all areas of your business - not just in upper management.
2. Make sure your leader candidates want to be leaders. Don't assume they want the responsibility.
3. Develop a mentoring program and ensure that adequate time is allocated to develop future leaders. Utilize successful team members to assist in their development.
4. Use job rotation to ensure that future leaders are exposed to as many functions and business areas as possible. This gives them a better understanding and appreciation of the business and the challenges that employees have in their jobs. Employees develop respect for those who walked in their shoes and understand their needs.
5. Establish a development schedule for these job rotations to make sure leader candidates are



trained and have exposure to the areas of business you deem important to your company's success. Set time commitments for each assignment (in weeks, months or years) and have scheduled reviews of the employee's development in each rotation.

6. Ensure that leader candidates have the skills and attributes that complement your business and its culture (or, make sure they have the attributes to make the correct change in the culture you desire).

7. Understand these attributes needed to be successful as a leader in your company and spend equal time focusing on attributes when selecting your prospective leaders. Technical skills and competence are very important, but most mis-hires (terminations) are not because of poor technical skills but rather a lack of a desired attribute.

8. Treat human resources hiring and development like a business acquisition. Proper due diligence and having a post-acquisition strategy are required to ensure successful on-boarding and long-term development of new employees (i.e. future leaders). Most business acquisitions fail due to a poor (or no) post-acquisition plan – same for human resources!

If you say your employees are your best asset, do your actions day-to-day show it? How are you leading? Do you spend more time looking at financials or developing people?

The right people give you the results you desire! People perform better for leaders that motivate and show concern for them as a human, not a number!

Tom Sothard is an External NTMA Executive Committee Member with 37 years of experience in the manufacturing industry – most recently as President of the Americas Region for Konecranes, Inc.

Helping Fill the Skills Gap

NTMA | U

NTMA Mechanical Aptitude Test

A powerful tool to help you identify and hire the right people for the role.

NTMA's Mechanical Aptitude Test was developed in consultation with industry experts to assess the understanding of basic mechanical principles, along with the applications of those principles to everyday shop situations. The test is a great tool to assess applicants who may have limited experience, but have the capacity to pick up on-the-job training and learn the position quickly!

Test Sections include Mechanical and Spatial Relations, Mechanical Reasoning, Applied Mathematics and Theoretical Reasoning

For more information, visit <https://ntma.org/programs/workforce-development/mechanical-aptitude-test>.



For more information, please contact Linda Warner at lwerner@ntma.org or 216-264-2824.

Applications and self-assessment documents can be found here:

<https://ntma.org/ntma-awards>

Applications should be sent to 6Saward@ntma.org

NTMA 6S Excellence Award

PURPOSE:

To improve the perception of American manufacturing by promoting and recognizing excellence in member shop organization and efficiency.

HOW IT WORKS:

- NTMA companies apply for the award by submitting a self-assessment based on criteria that demonstrate best in class practice in the six S's:
 1. Safety
 2. Sort
 3. Set in Order
 4. Shine
 5. Standardize
 6. Sustain
- Certificates are awarded every year for the first 5 years based on self-assessments submitted. Once the recipients receive 5 certificates, they are also presented with a trophy.

SPONSORSHIP OPPORTUNITY:

- Conference exposure via introductions, etc.
- Promotional exposure: web, print, blogs, and emails that promote and support the award.

SUBMISSION DUE DATE:

Please submit your application by September 1, 2021 to be considered.



SUMMER CONFERENCE 2021

<https://cvent.me/avY5qZ>

Equip Your Business With the Tools You Need to Succeed

“NTMA hit a home run...the virtual roundtables made it feel like we were there. We were able to sign up several employees due to this format. All seemed to like it and learn a thing or two from it. Definitely the future of conferences is at hand.”

Art Santana – Paramount Machine

June 14th- June 15th, 2021

Join us in NTMA Connect!

NTMA’s virtual world and event platform and tap into the tools to help your business succeed!

Registration Rates:

\$195 Per Member Company

\$295 Per Non-Member Company

Register today at: <https://cvent.me/avY5qZ>

For more event information, please contact
Kristen Hrusch: khrusch@ntma.org

Sponsorship opportunities are available!

For more information, please contact:

Kelly LaMarca - klamarca@ntma.org

With this year’s event going All-Virtual, unlimited employees from your company can attend! This means that employees that may not be able to normally attend can join the discussions and take part in this conference!

This includes roles such as:

- Human Resources
- Sales and Marketing
- Technology and Operations
- Financial Management
- Emerging Leaders/Workforce Development

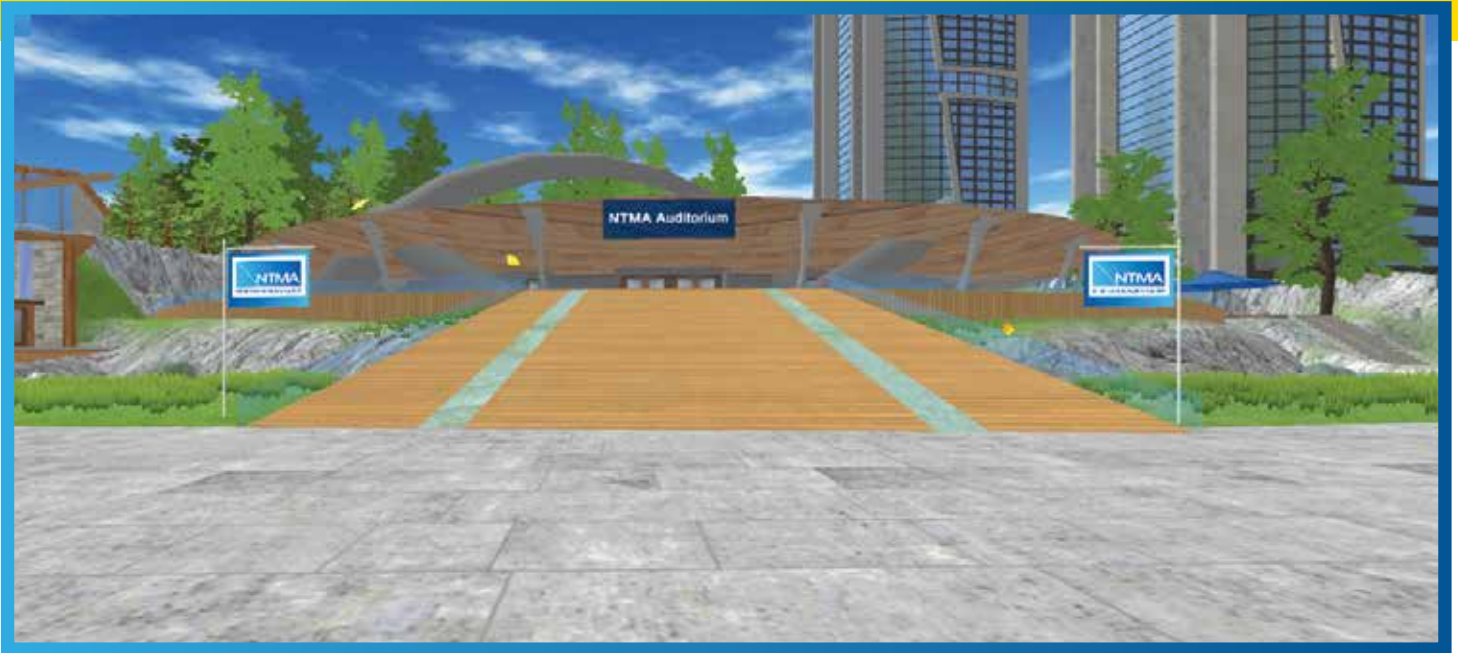
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Preview This Summer's Phenomenal Sessions!

Closing Keynote Supplier Value and Leverage

Paul Ericksen – Supply Chain Advisor,
IndustryWeek



Current practice for many Original Equipment Manufacturers (OEMs) is to select and manage suppliers as sources of commodities, negotiating based on leverage and awarding business almost exclusively to the supplier with the lowest piece-price. Due to the supply chain failures associated with the Covid-19 pandemic, OEMs are – for the most part – re-evaluating their current supply management strategies and practices, including those involved in supplier selection. This represents an opportunity for small-and-medium-sized manufacturers (SMEs) to showcase how their value equation can positively impact customer executive level financial metrics above-and-beyond piece-price.

OEMs typically assume that they have all of the negotiating leverage but this is not always the case. Suppliers often have leverage available if they are willing to do develop customer selection and management strategies as well as do some heavy lifting to understand where it comes from. This leverage – rather than being the basis for positional negotiation – can often be used to facilitate a more equal working relationship between SMEs and their OEM customers. Both background and actual case studies will be included in the presentation, providing attending SMEs with the basis for a new way of working with their customers.

Six Factors to Consider Before Investing in a CNC Machine

Jack Burley – President & COO of BIG KAISER
Wade Anderson – Product Specialist Sales Manager
at Okuma



Investing in a new (or used) CNC machine can be a nail-biting decision. The machine has to check all the boxes for your current application, but what about new work in the future? Which extra features are really worth the money? Join this session with two industry veterans who have seen hundreds of buyers navigate this challenging process. They will share six factors to know before you buy and make the best decision for your shop, regardless of the brand you may choose.

“The value of sharing struggles and ideas on the various topics exhibits universal appeal, and encourages greater participation. Thank you for creating such an environment in which to collaborate freely!”

Lisa Campbell - Safehold

Benefits of an LED Lighting Retrofit Project

If you've been toying with the idea of implementing LED lighting efforts in your facility, then now is the perfect time to take pause and hone in on the benefits and relative ease of an LED lighting retrofit. From better lighting and improved safety, to significant cost savings, the question shouldn't be IF it is time for an LED lighting retrofit, but WHEN.

Brighten Your Perspective

First things first, consider the numerous benefits that a LED retrofit will bring in tow:

Improved Energy Efficiency

LED lighting provides better, cleaner lighting at a fraction of the energy cost of traditional lighting. LEDs are significantly more efficient than their older counterparts, providing better light with less than half as much power consumption as standard high-pressure sodium (HPS) or Metal Halide (MH) lights.

Reduce Energy Costs

Lighting is one of the largest electricity expenses, which is why upgrading your facility to LEDs is one of the smartest investments you can make. Upgrading to LEDs can reduce your energy lighting costs, but even better, with the cost savings and potential incentives and rebates, you're looking at a quick ROI too.

Capture Tax Incentives and Rebates

Depending on what state your facility is located, LED lighting projects can qualify for rebates, tax incentives, and grants; for example, businesses in Maryland were eligible for up to 70% of the total project cost as well as federal tax deductions of up to 60 cents per square foot in 2020.

Improve Lighting Quality, Safety, and Productivity

LED lighting is bright and crisp, which not only improves the lighting environment of your facility but can also improve the perimeter lighting of your building or parking lot, resulting in increased safety for pedestrians and drivers. In addition to increased safety, there have been studies that indicate that better quality LED lighting can increase efficiency and productivity as well as improve employee morale.

Reduce Recurring Maintenance Costs

With our program, all the LEDs are guaranteed for at least five years, eliminating ongoing maintenance costs. The result? You're able to reduce costs with no operational disruption, and in many cases, no upfront capital.

Proven Results

The most common roadblocks businesses voice are: not wanting to invest the upfront capital to fund the project, and not having the bandwidth to perform the tasks needed to complete a retrofit.

Case Study #1:

A leading North American contract candy manufacturing company saw a unique opportunity to capitalize on substantial energy and maintenance savings through improved LED lighting practices. In addition to needing innovative ways to upgrade lighting throughout their facility, while simultaneously taking advantage of energy-saving rebates, they were also eyeing improved perimeter lighting for enhanced security.

Project Snapshot:

- On Bill Funding
- First Year Energy Cost Savings: \$144,734
- Rebate Secured: \$54,211
- Section 179 Tax Write-Off: \$74,443
- Annual Energy Savings: 1,084,222 kWh

Case Study #2:

A large custom label printer was in need of improved lighting over their machines, with an aim to also save money, increase efficiency in their facilities, and provide a more sustainable business for their customers. In addition, they sought a solution that did not require upfront capital.

Project Snapshot:

- On Bill Funding
- First Year Energy Cost Savings: \$109,557; ROI of 62.7%
- Rebate Secured: \$33,000
- Annual Energy Savings: 913,768 kWh

Our Process

APPI Energy's LED retrofit program provides businesses a trusted energy partner to assist them in economically replacing their current inefficient lighting with cost-effective, less consumptive LED lighting. We provide a turnkey solution that sources products from reliable suppliers, manages the entire scope of the project, and secures rebates on the client's behalf.

Allow APPI Energy to perform an initial facility assessment to determine if your organization is eligible for rebate incentives and assess the viability of the project. APPI Energy makes it easy for our clients to understand exactly what their rebates and savings can be. In many cases, a project can be completed with no capital expenditure on the part of the client.

In addition to those savings, APPI Energy also offers On-bill funding programs that allow qualified clients to have the entire project installed with no capital expense up front and then use the savings to pay for the project in monthly installments on their electric bill. You also have the option of keeping the rebate or rolling it into the project cost to reduce the payments even further.

One viable option for further exploring your questions to any and/or all of the above is by contacting the National Tooling and Machining Association's endorsed energy consulting firm, APPI Energy. For more information, contact NTMA's dedicated Energy Consultant, Noel Temple, at 667.330.1159 or ntemple@appienergy.com.



www.appienergy.com

Production Metalworking

1 Key Issues

What steps are you taking to improve productivity and to maximize the investment in your production operations? Get the most out of your machining, welding, cutting, grinding and fabrication operations. Our documented value program can help:

- Optimize product selection and application
- Improve work cell efficiency
- Maximize machine tool output
- Minimize scrap and rework

2 Solutions that Work



Dedicated metalworking specialists help work through challenging metalworking applications and identify cost-saving solutions. Our team of specialists is comprised of individuals with hands-on industry experience in a variety of applications.

Metalworking Specialists can be brought in to your facility to help with:

- Applications Insight
- Product Breadth & Quality
- Documented Cost Savings
- Technology and Innovation

Whether you're manufacturing large-scale sub-assemblies or intricate engine parts, having the right people, tools and processes can have a dramatic impact on production quality and efficiency.

3 How Grainger Can Help

Grainger offers an expanded portfolio of over 380,000 products **plus**, services, resources and expertise to ensure you have the right solutions, equipment and supplies when and where you need them.

Metalworking Products

- Abrasives
- Custom Band Saw Blades
- Drilling & Holemaking
- Indexable Inserts
- Machinery
- Machining
- Metalworking Fluids
- Milling
- Precision Measuring Tools
- Raw Materials
- Rotary Tool Holders & Accessories
- Threading
- Welding

Metalworking Services

- Custom Band Saw Blades
- Tool Reconditioning & Re grind
- Tool Recycling
- Lockout/Tagout
- Machine Guarding
- Inventory Management

Metalworking Resources

- Metalworking Specialists
- Technical Product Specialists
- Supplier Partners
- Industry Research
- [KnowHow® Articles](#)
- [Technical Videos](#)



Your Grainger Rep is Standing By

For more information on Grainger's metalworking solutions, contact your local Grainger Representative or visit grainger.com/metalworking



Fast Facts

Grainger provided

\$36,000
average

documented cost savings for every metalworking customer engagement throughout 2019.¹

28%

28% of metalworking firms rely on lean manufacturing processes to optimize their operations.²

Grainger has **380,000+** metalworking products from over **500** suppliers.³

One Voice: Federal Government Advocacy Program

The manufacturing industry continues to navigate the unique challenges and changes brought on by the last year – and it remains important to have a partner in advocacy. NTMA continues to work closely with the team at One Voice: the combined federal government advocacy program representing small-and-medium-sized business manufacturing in America.

In addition to providing guidance on COVID-19 regulations and uncertainties, One Voice has a wealth of fantastic resources, developed to help keep your shop informed and prepared for whatever comes next. This has included virtual

bi-weekly webinars, news releases, educational materials, and the Talking with One Voice Podcast.

Now, you can also receive a concise explanation of everything going on in Washington, D.C. with “Two Minutes with Voice,” a bite-size weekly video hosted by various members of The Franklin Partnership and the Policy Resolution Group at Bracewell LLP. Each episode is uploaded to the NTMA YouTube channel – and shared through our social channels.

We hope you continue to utilize this key partner in One Voice—one that ensures that millions of

manufacturers across the country have their voices heard.

Please Visit www.metalworkingadvocate.org for more information.



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YOUR DOCUMENTS

YOUR SERVICE REQUESTS

NET service

- + Reduce machine downtime on a remote basis
- + Multi-user conference allows cross-departmental collaboration
- + Transparency ensured by logging all service activities

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- + More service: faster response times
- + More knowledge: documents available digitally
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