

THURSDAY
NOVEMBER 8, 2018

DAY 3

GEORGIA WORLD
CONGRESS CENTER

THE OFFICIAL FABTECH PUBLICATION



NORTH AMERICA'S LARGEST METAL FORMING,
FABRICATING, WELDING AND FINISHING EVENT



TODAY'S EVENTS

Keynote: David & Jonah Stillman, Best Selling Authors and Generation Experts

8:30 AM – 9:30 AM

Thomas Murphy Ballroom

Panel Presentation: Manufacturing and the New Generation Workforce

10:30 AM – 11:30 AM

Thomas Murphy Ballroom

Smart Manufacturing Hub During Show Hours

Sessions All Day (see pg. 12)

A/B Connector, Booth AB2798

Knowledge Bar: Ask the Experts

11:00 AM – 4:00 PM

Sessions All Day

3D/Additive Manufacturing Pavilion,
Booth B6000

Spin to Win — Chance to Win Prizes!

10:00 AM – 3:00 PM

Booth B9681

A Memorable Morning with NASCAR Legend Kyle Petty

Kyle Petty is an auto racing icon, a champion of philanthropy, and one of the most popular personalities in all of sports. His keynote on Wednesday to a packed house entitled, "What a Ride: Life, Family, Community and the Race Track," was one of the highlights of this year's FABTECH.

His storied NASCAR career includes eight wins, 173 top tens and a long list of honors and awards. He worked on the pit crew for his father Richard Petty, helped run successful race teams, and commented on some of the most thrilling finishes in NASCAR history. Yet he counts his work as a metal fabricator as one of the landmarks of a storied career.

"From a career perspective, the highlight was being a fabricator on the Oldsmobile that my dad won the Daytona 500 with in 1979," said Petty. "Another big highlight was working in the garage area of Charlotte Motors Speedway after my son Adam wrecked in practice to put his car back together. I watched him go on to win his first ARCA race that same weekend."

He addressed a FABTECH crowd composed not only of fabricators and manufacturers, but of ardent fans of NASCAR. Petty believes that the appeal of NASCAR to FABTECH participants lies in its origins.



Metal fabrication played a huge role in preparing stock cars for the grueling pace of the racetrack.

"Steel-bodied, American-made cars were tweaked and modified to run faster than their original design intended," said Petty. "The good mechanics knew how to cut, weld, change, and replace original parts with homemade fabricated parts that made the cars more durable and faster."

Those skills transported a small, local event on the sands of Daytona Beach in the 1940s to a national obsession with a worldwide audience. NASCAR today is a global phenomenon that brings in billions each year. Events range from the Monster Energy NASCAR Cup Series, the NASCAR

Xfinity Series, Camping World Truck Series, Pinty's Series in Canada, PEAK Mexico Series, Whelen Euro Series, and many more regional racing series in the U.S.

Like many in the fabricating and manufacturing fields, Petty grew up as part of a close-knit family business. Despite the fame and prestige that quickly became associated with the Petty name, he says the family business was no different than any other. As well as the happiness and joys of achievement, the group had to live through its own share of trials and tribulations that go along with the territory in any competitive field.

"Our family business just happened to involve race cars," says Petty. "Racing was always the number one topic of conversation in our family — at work, at home, over the holidays, at the dinner table."

He talks with pride about his fab shop background and how those facilities have evolved through the years. He explains that the fab shop of Richard Petty Motorsports (in partnership with Richard Childress Racing) constitutes about a third of the total premises. It continues to turn out a couple cars a week.

But the methods employed today are quite different from those of his younger continued on p. 20



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Women of FABTECH

Wednesday morning kicked off with the Women of FABTECH breakfast and Tech Tour. This networking event celebrated the importance of women in the manufacturing sector. It aimed to foster relationships and dialogue between supporters and practitioners in the field.

"The breakfast was a great place for women attending and exhibiting at FABTECH to meet and network with other women in the industry, as well as hear from two outstanding women leaders," said Sheila LaMothe, Vice President of Strategic Initiatives, Chemical Coaters Association International.

The audience was treated to a lively debate between Laura Cox Kaplan and Veronica Braker. Kaplan is host and creator of the "She Said, She Said" podcast, a platform to show the uniquely diverse voices of inspiring women who are making a difference. Her 25 years of experience at the highest levels of business, politics, and public policy brings a unique perspective to conversations with a broad range of thought leaders.

She led BASF's Veronica Braker through a discussion about her experiences throughout her 25-year career in process and project engineering, quality, supply chain, and operations leadership. In addition to her journey to become a leader in Operational Excellence, the three-year career development program she launched for BASF North America females was of great interest to the audience. This program was carefully designed to improve the representation of women in manufacturing and technical roles.

Such programs are vitally needed. Women currently comprise almost one third of the manufacturing workforce in the United States. In the overall workforce, however, they make up just under 50 percent. The good news is that the number of women following manufacturing careers has increased about 3 percent over the past several years.

There are various ways to raise the profile of career opportunities in manufacturing for young girls. The key to this is engaging teachers, counselors, and parents in a campaign to promote manufacturing to middle and high school kids. In addition,



manufacturers and trade associations and groups that focus on the advancement of women in manufacturing must continue to broaden their reach and provide services and training that encourage women to enter manufacturing.

"Ask any manufacturer their biggest challenges, and finding and retaining skilled employees will be among their top three," said LaMothe. "With women making up half of the workforce, they are crucial to the industry's ability to satisfy workforce development requirements. The diversity women bring to manufacturing is an added bonus."

What isn't broadly understood is that a career in manufacturing does not only mean the operation of precision machinery or a position on the shop floor. Increasingly, women are finding satisfying positions in engineering, software development, marketing, sales, finance, human resources, and more. Many of these jobs pay well and offer attractive benefits packages.

LaMothe encouraged women to network with other women in the industry. She also urged attendees to visit booths in the exhibit to gain an inside look at the variety of technologies on display. ■

Maintenance at Hersheypark Ensures Sweet, Safe Rides

By: Roline Pascal, assistant editor of the *Welding Journal*

The chocolate-themed amusement park unwraps its process of maintaining, inspecting, and designing its attractions.

There's no thrill like a good amusement park ride. Hurtling around a 70-mph roller coaster track and navigating 180-deg turns is exhilarating, no matter how old you are. Let's be honest, amusement parks are all about the fun. But in the endless quest for "fun and thrills," one probably doesn't think about the work that goes into making sure thousands of visitors experience that "amusement" safely. Here's a little secret: It's a lot of work.

Hersheypark, Hershey, Pa., dubbed "The Sweetest Place on Earth," has been attracting families for more than 100 years with its abundance of roller coasters, water slides, and more. Originally built in 1907, the park has grown significantly since its original humble roots. Up until 1923, Hersheypark did not have any roller coasters — the first one to be installed was the Wildcat. What began as a town built on chocolate has become a must-go to indulge your sweet tooth and ride some of the most



well-known roller coasters in the United States. The park has more than 70 rides and attractions including 14 roller coasters, and more than 20 rides for children. As one of the most visited parks in the nation, the rides require daily inspections and maintenance to make them reliable and safe.

Gary R. Chubb, Hersheypark's senior director of maintenance for more than 10 years, has been with Hershey Entertainment and Resorts in various roles since 1971 — where he was first introduced to the welding industry. His career began in

the mechanical maintenance area, and in 1972, he entered the U.S. Army where he received training in heavy equipment operation and maintenance. Following his discharge in 1975, he worked in various operational roles at Hersheypark — up until 1989 when he was assigned to the Corporate Safety and Security department. He moved on to Dutch Wonderland as park manager for a few years, then returned after Hershey Entertainment and Resorts bought that park in 2001. Chubb, as well as the hundreds of employees he oversees, play a key role in making sure

the quality rides enjoyed are effectively maintained and inspected.

Hersheypark employs 185 full-time hourly union employees in a variety of trades. The roster consists of 24 electricians, 68 ride mechanics, 3 garage mechanics, 10 plumbers, 7 painters, 7 laborers, 18 carpenters, 5 full-time sign artists, 2 machinists, 2 store room attendants, 2 welders, and 20 utility personnel. Utility also employs 250 part-time/seasonal workers.

Nine months out of the year, the wheels are rolling. The park is generally shut down from January to the end of March for overhaul, and reopens on the first weekend in April. This year, the park closed on January 2 and reopened March 30 because of Easter.

Last year, the park opened for 175 days. The busiest operating time is the end of May through Labor Day. It operates through many major holidays including Labor Day, Thanksgiving, and the Christmas season. The end of the year signals the start of overhaul season.

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New Tax Law Opens Opportunities for Metal Fabricators

The right tax strategy can give a fabricator a leg up.

Changes to accounting methods, capitalization requirements, bonus depreciation, and accelerated expensing all sound pretty dry and boring. But if a fabricator develops the tax strategy around these changes, it may reap the benefits.

Editor's Note: The following is based on information from Wipfli LLP, www.wipfli.com, a CPA and consulting firm based in Milwaukee, Wis. The editors thank Wipfli Tax Partner Samantha Wimmer for her review.

An \$18 million fabricator has a strong balance sheet; however, cash flow is tied up in non-cash current assets, the fabricator is having a rough year getting paid, and

taxable income is anticipated to be \$2 million. The fabricator learns that it can file its taxes and take advantage of a \$1 million deduction for the difference between its \$5 million accounts receivable and \$4 million accounts payable, saving hundreds of thousands of dollars. As a result, the \$2 million of taxable income is now only \$1 million. Thanks to the new U.S. tax law, this is in the realm of possibility.

Although there has been lots of commentary about reduced corporate tax rates, there has been less focused discussion (likely due to delays in IRS guidance) on strategies related to minimizing taxable income, saving taxes, and the effects of both on conserving cash flow.



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First though, a disclaimer. All this is for informational purposes only; there are details and limitations in each of the areas discussed that are outside the scope of this article. This article is no substitute for one-on-one tax advice, nor does it represent official interpretations of IRS regulations. The tax regulations based on the new law are still being written, and clarifications are still being issued. For further details and clarifications, seek out a tax professional.

Regardless, preliminary guidance demonstrates that many of the new tax provisions provide opportunities to save taxes and help companies focus on cash.

Cash versus Accrual Method of Accounting

For tax years beginning before Jan. 1, 2018, most U.S. metal fabricators were required to use the accrual method of accounting for tax purposes. Why? For decades, tax guidance has required the accrual method for those maintaining inventory. Since most fabricators have inventory, the default accounting method has been the accrual method. Under those provisions, fabricators would record revenue and expenses when incurred, not when cash was received or paid.

For many fabricators, this creates a challenge for cash flow and related planning. For example, a fab shop that concentrates on large industrial projects may enjoy healthy margins, but the payments for those long projects come infrequently. Another fabricator may find itself playing “banker” as it deals with slow-paying customers and

accounts receivable (AR) with a growing number of days outstanding. Although the accrual method may show a healthy business, it can present challenges given that taxes may be due on income earned but still represented by outstanding AR.

As part of the tax reform, the cash method of accounting has been modified such that many businesses previously ineligible for the cash method are now eligible. Under the revisions, businesses can adopt the cash method regardless of whether they are required to maintain inventories, provided revenues do not exceed a \$25 million threshold. Specifically, that \$25 million threshold is calculated based upon average annual gross receipts (AAGR) over the prior three tax years. For example, if a fabricator had gross receipts of \$24 million in the third preceding year, \$26 million in the second, and \$22 million in the first — its AAGR would be \$24 million. Since this is less than \$25 million, the fabricator would qualify for the cash method.

There are certain exceptions to this, of course. When it comes to taxes, there always are. Regardless, most U.S. fabricators would certainly fall under the \$25 million threshold. Once AAGR exceed the \$25 million threshold, the fabricator would need to follow procedural guidance and convert back to the accrual method.

Both accrual and cash accounting methods have their merits, and which method is most advantageous depends upon each taxpayer's unique facts and circumstances.

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Virtual Painting Makes It's FABTECH Debut

For the first time at FABTECH, visitors to the Chemical Coaters Association International (CCAI) booth (B4700) can try their hand at industrial painting through a VirtualPaint system. Developed by the Iowa Waste Reduction Center, part of the University of Northern Iowa, the system is a highly adaptable virtual reality training simulator that mimics a fully customized painting and coating production environment.

The realistic hands-on painter training can be conducted in a classroom and is an alternative to shop floor training — which can be costly, time consuming, and labor intensive. The VirtualPaint software provides instant feedback, determining the spray pattern distribution, film thickness, transfer efficiency, and overspray in real-time. And the painter can see their results on the system's display screen.

Using a real spray gun enables the painter to experience features like adjustments to air pressure, fan size, fluid pressure, flow rate, and partial triggering — which make for a highly realistic training experience. The end result is better technique, control, performance, and valuable feedback to the painter.



Daily VirtualPaint demonstrations and painting competitions will be held in the CCAI booth. Be sure to stop by and test out your industrial painting skills. Competition winners receive a powder coated RTIC cup and a free registration to the Powder

Coating & Curing Processes Seminar to be held at Georgia Power in Atlanta, March 5 & 6, 2019. ■

A Great Day to RUN4MFG

Most of us don't get enough exercise. But this year's annual FABTECH RUN4MFG 5K event proved to be a fine way to change that and help worthy causes at the same time. Attendees had the choice of either running or walking a 3.1-mile course route through the beautiful park right across the street from the Georgia World Congress Center.



It was inspiring to see so many of the FABTECH crowd answering the call and proved to be a great way to meet up with fellow attendees and exhibitors while supporting a worthy cause. The proceeds from the event are used to support a number of charitable foundations, as well as vital industry programs from the FABTECH show partners AWS, FMA, SME, PMA, and CCAI. These programs are designed to provide a brighter future for manufacturing.

During the day, look out for people wearing their RUN4MFG T-shirt. These are the individuals who took part and donated their time and money to help others. Let them know how much you appreciate their help. ■

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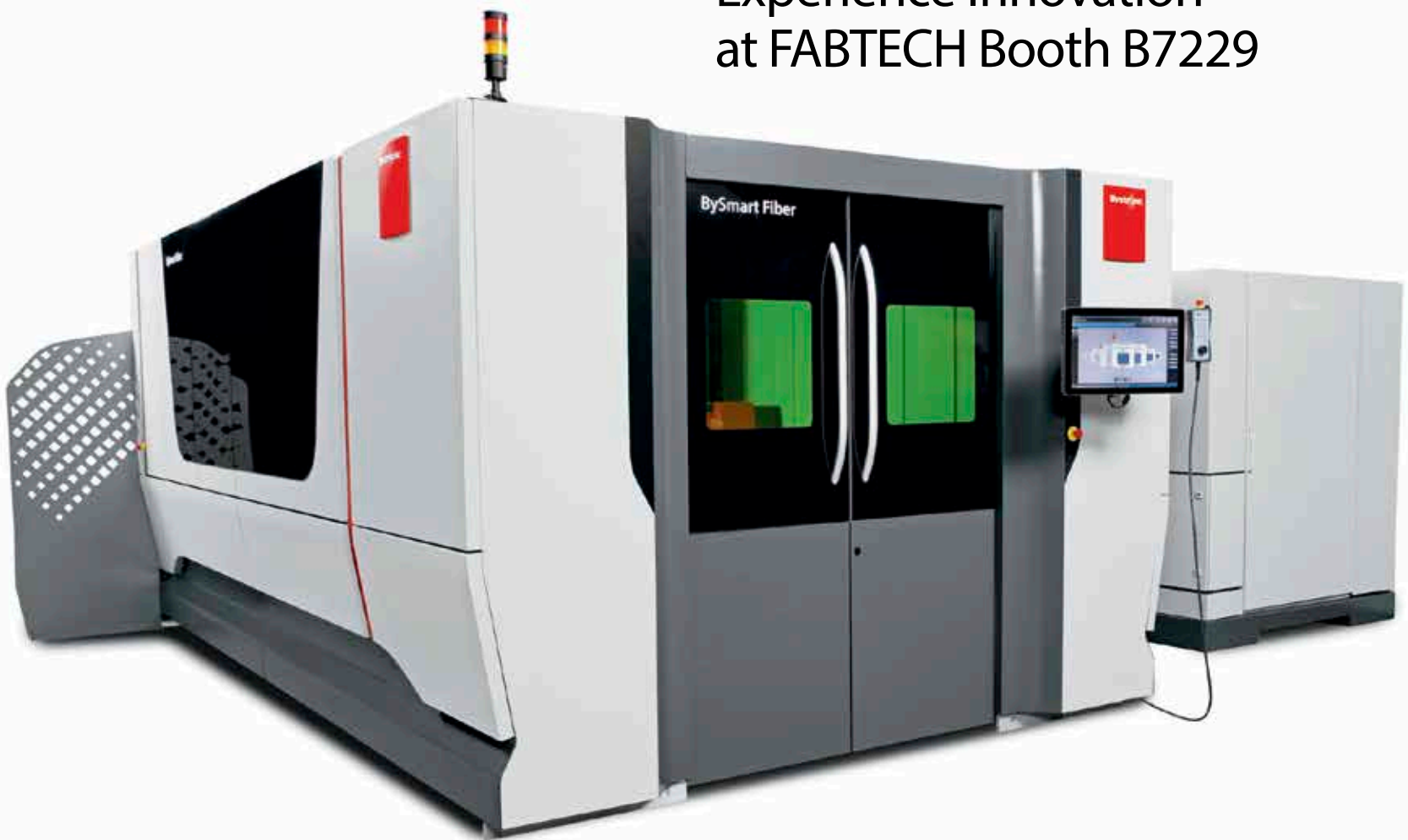
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4 Key Elements of Your Sales Overview Pitch

By: Chip Burnham, author of *MarketMD Your Manufacturing Business*, and co-founder of Fairmont Concepts

Every salesperson needs the foundation of a strong sales pitch to draw upon during conversations with potential customers, especially for high-dollar sales. Learn how to craft your pitch and train your sales team.

The elevator pitch is important, because it provides a simple and memorable outline. When it comes time to have a long discussion with the potential customer, sales reps use the elevator pitch as a guide, adding detail where needed.

“Sales pitch” is a strange term. It suggests that a salesperson warms up and then throws a collection of statements at a prospect. The prospect either accepts or rejects the pitch.

But, we all know selling high-dollar items isn't like that. It's about careful, patient interaction. It's about building a relationship, uncovering needs, and eventually — when the time is right — solving needs.

Why, then, promote training salespeople on an overview pitch for all the company's key products and services? For two reasons: to shorten the time between new product training and execution, and to build confidence.

This article is designed for manufacturers selling high-dollar products through full-

time salespeople or agents, although the principles can apply to many sales situations.

Prepare Them to Sell

Too often, companies provide the sales team with a list of technical features and product benefits and stop there, thinking every salesperson in the room is trained and ready to go. Assuming a salesperson can absorb all the new information provided and turn it into a persuasive dialog is unrealistic. The overview pitch gives them a place to start.

Every release of a significant new product or service requires an overview pitch. You don't want the reps to recite the pitch. Instead, you hope they take ideas from the pitch, incorporate a technical term or two, adjust the phrasing as they see fit, and weave it all together into the natural flow of the conversation. In short, they need to make it their own. The overview pitch provides a valuable jumping-off point to help them create their own persuasive presentation much more quickly.

The Confidence to Sell

The overview pitch is about confidence. Confidence plays a role with the buyer. Buyers of high-dollar items will purchase your product only if they have confidence



that your solution will result in a return on the investment, alleviate their fears, won't threaten their job security, and will lead to future success for their business.

But, confidence plays another, equally important, role with your sales team. It's crucial that your sales reps have the confidence to propose your new product to the buyer. Sales reps must be confident in their ability to deliver the pitch, answer the buyer's questions, meet the buyer's needs, offer something of value, and close the order against the competition. They want to do all of this as easily as possible.

This is especially true when you are asking them to sell new products. To get salespeople to break out of their comfort zones, you must build their confidence in pitching the new product, or they might find ways to simply avoid promoting it at all.

Perhaps the single most important way to prepare your salespeople to sell your



product is to train them on a well-crafted overview pitch.

Prepping for the Pitch

A great deal of salesperson/buyer interaction takes place before the salesperson gets to the point of delivering the pitch. Successful sales people spend most of their time with a potential customer uncovering needs, establishing credibility, and, to an extent, identifying the competitive landscape (Figure 1).

Once these three tasks have been covered, and you're ready to present a recommended solution, it's time to give the pitch.

There should be two versions of your pitch. The one the rep uses depends on the situation and the amount of time he or she has. The first is the elevator pitch, a quick 30-second delivery for those brief opportunities with potential customers. The second is a more detailed presentation for appointments and situations when there is more time to pitch the prospect.


The elevator pitch is important, because it provides a simple and memorable outline. When it comes time to have a long discussion with the potential customer, sales reps use the elevator pitch as a guide, adding detail where needed.

A perfect example of when you might use an elevator pitch is on a tradeshow floor. You have a high-quality prospect in your booth, your time with him is limited, and your competitors are lurking and waiting to pounce. You must give the prospect a

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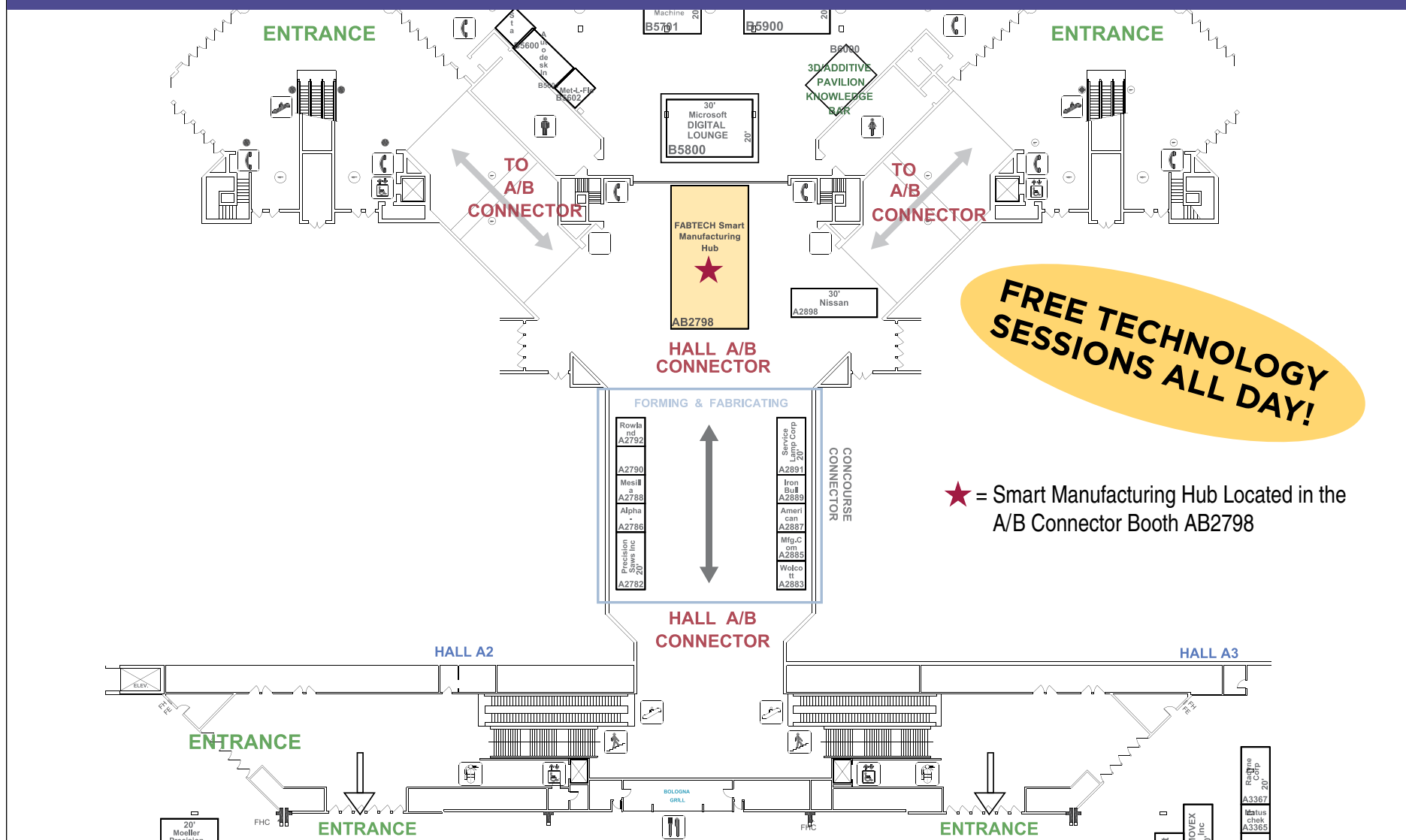
Today's Smart Manufacturing Hub Presentation Schedule

Sessions are free and open to all attendees

Technical presentations from industry-leading smart technology providers will provide insight on recent developments in this rapidly evolving field.

THURSDAY, NOVEMBER 8		
9:20 AM - 10:00 AM	An Inside Look at Metal 3D Printing for the Mass Production of Complex Parts <i>Ben Arnold, Director of Sales North America, Desktop Metal</i>	Disruptive technologies revolutionize industries. The Production System has a unique place in the emerging Additive Manufacturing innovation arsenal. This session explains the evolution of the first metal 3D printing system designed for mass production at speeds 100x faster than traditional methods, and unpacks the promises of speed, quality, and accessibility that are poised to compete with traditional manufacturing processes. Find out the optimal application scenarios for the Production System as a plug and play, designed to streamline the production-to market-process for batch manufacturing. Look under the hood at the innovative, core technology that fuels the system; Single-Pass Jetting. If improving throughput matters; if your parts production requires complex forming techniques, this session will matter.
10:20 AM - 11:00 AM	ROI of Robotic Automation: Your Path to Survival <i>Mark Sumner, Vice President of Sales & Marketing, Acieta</i>	Maintaining the status quo is not an option for manufacturers who struggle to secure quality labor. Join us to learn how robotic systems enable manufacturers to deliver higher quality parts and maximize throughput, all while keeping their workforce numbers consistent and employees safe.
11:20 AM - 12:00 PM	Additive Tooling for Metal Forming <i>Nick Hofer, Applications Engineer, Manufacturing Solutions Business Unit, Stratasys</i>	<p>When it comes to metal forming, thermoplastics aren't normally thought of as a viable material option for tooling but as additive manufacturing companies continue push the boundaries on high strength material development, the application window keeps growing. Companies looking to keep a competitive edge in the metal fabrication business can cut lead times, decrease cost and accelerate innovation using additive manufacturing for tooling.</p> <p>In this presentation, attendees will see how 3D printed tooling is used in metal forming applications such as hydroforming and press brake tooling. Information on material selection, tool life studies and industry examples will be covered. Don't miss the opportunity to see how this technology can change the way formed metal parts are made.</p>
12:20 PM - 1:00 PM	Data-Driven Manufacturing: Enabling Operational Excellence and Tangible Business Advantages on Your Factory Floor <i>David McPhail, CEO and President, MEMEX</i>	<p>Data-Driven Manufacturing has proven itself to be a technology solution that delivers real benefits, independent research and customer reports all indicate that there are provable and measurable advantages to implementing a Data-Driven Manufacturing solution.</p> <p>Data-Driven Manufacturing, involves the capture and collection of real-time machine data and the transformation of that data into useful, readable business and operational information that enables employees to do their jobs better, and increase key production metrics including availability, quality, performance, and throughput.</p> <p>While Data-Driven Manufacturing solutions are optional now, studies indicate they will soon become the industry-standard way of managing plant activity.</p> <ul style="list-style-type: none">• Understand why Data-Driven Manufacturing is the right choice for your business• Hear why leading manufacturers depend on Data-Driven Manufacturing• Realize how easy it is to implement a Data-Driven Manufacturing solution• Comprehend how Data-Driven Manufacturing returns extremely compelling bottom-line results
1:20 PM - 2:00 PM	Practical Applications for Artificial Intelligence in Manufacturing <i>Paul Manikas, Senior Industry Solution Executive, Microsoft</i>	This tech talk will discuss how Microsoft uses AI to drive digital transformation with accelerators, solutions, and practices that empower your organization. He will also discuss how these industry solutions help manufacturers drive digital transformation across product development, manufacturing operations, sales and service.
2:20 PM - 3:00 PM	A Hitchhiker's Guide to Metal Additive Manufacturing – The Have's and Have Not's to Evaluating Additive Made Parts <i>Justin Joiner – South Region Manager, SLM Solutions NA, Inc.</i>	Like any new endeavor throughout life, we all need to learn what we can and can't do when tackling life's problems and challenges. Metal Additive Manufacturing is no stranger to this notion with everyone undeniably celebrating its opportunity but how can we can approach it's use through a tangible lens which embraces it's freedom but also balances with reality? We'll explore this question in hopes that's mice don't take us over.

SMART MANUFACTURING HUB LOCATION



Experience the Fusion of Service, Training, and Top-Notch Machine Tools

People have different reasons for attending FABTECH. Perhaps you've been looking for an all-electric press brake to replace that swaybacked mechanical brake bought when gas was still fifty-cents a gallon. Maybe it's automated material handling, so you can pick up another shift or two after everyone's gone home for the evening. It could be to kick the tires on a fiber laser, or to see if those waterjets are really as noisy as you've been told (they're not). Whatever the case, be sure to swing into Booth C12652, where Capital Machine Technologies will have the Safan Darley E Brake B 35-1250 and two Fusion Arcs, the FA-100 and FA-180LS.

Experience first-hand the hype around electric bending as the Safan Darley E Brake B 35-1250 will be on demo. This revolutionary machine boasts a smart safety system that actually increases productivity rather than hindering it. The menu-driven control is fast and intuitive, able to convert solid models into finished parts quickly and easily. Its unique construction assures part accuracy far beyond any competing

system, virtually eliminating the need for crowning adjustments, and when equipped with WILA brand quick-change tooling (also on display) — makes the Safan Darley the perfect press brake for low-volume, high-mix component fabricators.

Your welders won't want to miss seeing the FA-100 and FA-180LS Fusion Arc modular welding cells from sister company, Capital Robotics. With nearly two decades of proven plug and play performance, Fusion Arc is a flexible way to reduce setup times and improve part quality, not to mention giving the bottom line a big boost.

Capital Robotics has been making the Fusion Arc welding cell since 2000, when it joined forces with OTC-Daihen, an industry leader in robotics and welding products. Since then, the company has become the largest provider of robotic welding and fabricating technology throughout the southeastern United States, with the rest of the country not far behind.

That's not to say the systems sold back then were anywhere near as advanced as



today's units. Capital Robotics has listened to its customers, as well as its field service technicians and welding engineers to continually refine the Fusion Arc welding cells to provide a fast, flexible, and accurate welding solution for shops large and small.

The structure of the Fusion Arc eliminates the need to anchor the cell to the floor. As long as there's a forklift handy and hook-ups for power and compressed air at the Fusion Arc's next destination — you can set it on the floor, hook it up, and get to work. Temperature swings, shifting concrete, midsummer humidity — nothing affects the Fusion Arc.

Four Fusion Arc models are available, although Capital Robotics is happy to work with you on a custom cell if none of the standard units fit your needs. Each pre-configured cell can be ordered in either standard or extended reach format, providing customers with eight off-the-shelf cell designs.

Stop by booth C12652 where sales and service engineers from Capital Machine Technologies Inc. will be on hand to discuss these production needs and more.

New Tax Law Opens Opportunities for Metal Fabricators

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However, with the new tax environment, most businesses with sizeable AR in excess of AP, and gross receipts below the \$25 million threshold, are likely to realize a significant tax benefit from changing to the cash method.

If fabricators average between, say, \$5 million and \$15 million in annual gross receipts, it could be a long time before they approach the \$25 million threshold. Thus, they may qualify as cash method taxpayers for an extended period, which over time

can yield significant tax savings on a present value basis.

Even if a fabricator switches to the cash method for tax purposes, the fabricator can still use the accrual method for financial

accounting purposes. In fact, some companies may prefer keeping both, effectively achieving the best of both worlds — better income results under the accrual method to strengthen the financial position reported to bankers and investors, and reduced taxable income under the cash method, thereby minimizing taxes.

Treatment of Inventories

The \$25 million threshold for average annual gross receipts also applies to a provision related to inventories. Businesses below this revenue threshold are now exempt from the requirement to maintain inventories. Pursuant to the tax reform, these businesses can elect to treat inventories as nonincidental materials and supplies, or in conformity with their financial statements.

In addition to the new exemption for inventories, businesses below the \$25 million threshold are no longer subject to the uniform capitalization (UNICAP) rules that have required manufacturers to capitalize additional costs into inventory for tax purposes. Capitalizing those costs meant higher inventory levels and fewer tax deductions until the manufactured goods were sold.

Suppose a fabricator has \$100,000 of cumulative UNICAP costs capitalized into inventory for tax purposes that hasn't yet been sold. Now that fabricator doesn't have to apply UNICAP, and as a result, an immediate tax deduction for the \$100,000 of previous capitalized UNICAP costs awaits.

Please note that the IRS does have procedural requirements (some of which are currently pending), that must be followed for businesses to adopt these changes. Therefore, fabricators that wish to change to the cash method, or change the treatment of their inventories or UNICAP costs, should consult their tax advisor before making any changes in their filing positions.

Bonus Depreciation and Section 179

The tax reform also expanded the accelerated depreciation available on property additions. Bonus depreciation has increased from 50 percent to 100 percent, and eligible property is expanded to include not only new property, but used property as well. Bonus depreciation is not limited to a maximum dollar amount and is not limited by the taxpayer's business income. The 100

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continued on p. 18 ►

Maintenance at Hersheypark Ensures Sweet, Safe Rides

continued from p. 4

Nondestructive Inspection During Overhaul Season

Amusement park rides go through a combination of stress and exposure to the elements throughout the year. This is a demanding industry requiring a variety of nondestructive examination (NDE) methods and amusement park experience to know what to look for and how to look for it.

Hersheypark shuts down completely during the winter. During this time, all roller coasters and rides are removed from the tracks and brought back to the service center to be inspected. They are pressure washed, and the bodies, as well as the wheels, are stripped down to their frames. The frames are lined up to go through the NDE process.

Hersheypark appoints Lind Enterprises Inc., Harrisburg, Pa., as a third-party inspector. The company has been doing work for the chocolate-themed wonderland since 1999, and spends the bulk of the winter months (about three to four months) when the park is closed inside the service shop doing testing on parts after the rides have been stripped down.

The NDE company checks each of the cars at the park. Visual inspection (VT), magnetic particle testing (MT), liquid penetrant testing (PT), and ultrasonic inspection (UT) are used based on the composition of the piece being inspected, as well as the manufacturer's and insurance company's requirements. In the shop, visual is the most used, then magnetic particle. Out in the park, ultrasonic inspection is most often used. The nondestructive technicians also check the thickness of the material.

The inspectors go through each ride's own separate inspection list. Many of the inspections are conducted based on the manufacturer's instructions and the requirements of the ASTM F24 standard on amusement rides and devices. The manufacturer states what type of inspections it recommends.

Rides must be in good condition and operate properly and safely. "If they [the inspectors] find problems with a ride component or part, we decide if we can repair or they need to be replaced," said Chubb.

Service Center: Behind-the-Scenes Maintenance

To keep roller coasters and other rides operating safely, a good welder is a

necessity. Ensuring that the steel parts of rides are properly welded is an incredibly important job. Therefore, Hersheypark has two welders on staff who are tasked with inspecting, maintaining, repairing, and/or modifying rides as needed — per the ride specifications.

The machine shop, where you can often find Hersheypark's welders, has a combination of old and new equipment. It has a press brake, CNC milling machines, drills, saws, and more. Welder Paul David Rieber, who joined Hersheypark in May 1995, uses a variety of processes to maintain the integrity of every ride he works on. Because roller coasters do experience a lot of stress on the track, issues can be found and minor maintenance will have to occur. The common types of welding done at the chocolate-filled park are shielded metal arc and gas tungsten arc welding (in the park), as well as shielded metal arc, gas metal arc, and gas tungsten arc welding (in the shop).

When the welders need to remove a weld, they carbon arc gouge it out, clean it up, then gouge the other side out, and reweld.

Roller coasters require a great deal of welding since most of their parts are made of steel. That said, wooden coasters also require welding since the majority of wooden coasters run on steel tracks. Whereas steel coasters are more fixed, the structure

that makes up wooden coasters can expand or shrink depending on the weather.

The materials used must be able to withstand heat, cold, and the outdoor elements; daily wear and tear; and the friction caused by the cars zooming along the tracks. For example, the Storm Runner, a hydraulic-launch roller coaster, guarantees an exhilarating sensation as it accelerates from 0 to 72 mph in two seconds. This may cause unexpected stress; however, because the ride is built of steel, it makes for an incredibly sturdy structure — which allows the ride to go fast, loop, barrel roll, snake dive into magnetic brakes, and still travel perfectly safe.

"This is all specified by the ride manufacturer using ASTM F24 standards," asserted Chubb. "In turn, those standards will direct manufacturers to utilize AISC Standards, AWS Standards, DIN Standards, EN Standards, and others when selecting various steel types."

Rieber asserted the common materials he works on include aluminum, stainless steel, and mild steel. Aluminum is used for some of the railings including the trains on the Comet (roller coaster). Although the ride is billed as a wooden roller coaster, it has a steel framework. On top of the wooden bed are the steel rails the coaster wheels run on.

Rieber also works on gauge metal that ranges up to several inches thick. For example, the Pirate, which is a ship that swings back and forth, works on a pendulum, and the blocks that hold the drive unit are 2-1/2 inches thick. As required, he refers to the ASTM standard, which references AWS standards.

Naturally, working at an amusement park is not a typical job for a welder. Since joining the park, Rieber has encountered challenges, but they are eclipsed by his enjoyment of his work. He especially takes pride in making something new from something old.

"I enjoy everything I do as far as anything safe and user friendly," Rieber said. He recalls fabricating parts to repair the miniature railroad, which debuted at Hersheypark during the 1910 season, that used to go around the park. He fabricated parts for the miniature train railway and built everything from scratch. "I did a lot of hitches for that," he concluded.

Although ride maintenance personnel are not required to have formal welding training, state certified amusement ride inspectors do receive a basic overview of how to inspect welds along with basic understanding of nondestructive practices and testing procedures.

continued on p. 25

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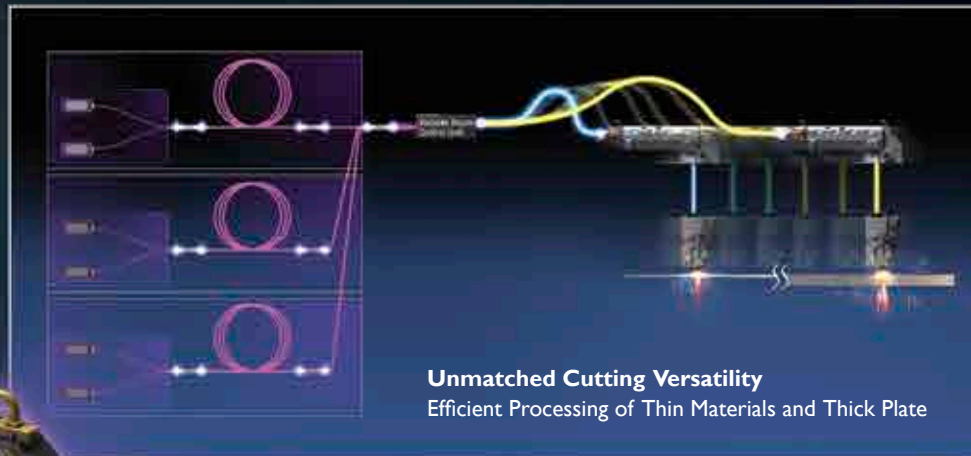


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New Tax Law Opens Opportunities for Metal Fabricators

continued from p. 14

percent bonus depreciation also is retroactive; it applies to eligible property acquired and placed in service after Sept. 27, 2017.

Section 179 provides another alternative for immediate expensing of eligible property. However, Section 179 has some

limitations, including a maximum deduction of \$1 million for 2018, a dollar-for-dollar phase out of the deduction as eligible property purchases exceed \$2.5 million, and a limitation based upon the taxpayer's business income.

Let's consider an example of a fab shop acquiring and placing in service \$2.6 million of eligible property. Due to the Section 179 phase-out limitation, the \$1 million deduction is reduced to \$900,000. At \$3.5 million of eligible property, Section

179 would be fully phased out, resulting in no Section 179 deduction to the shop for that year.

As a fabricator, you may be wondering — what is the benefit of bonus depreciation versus Section 179? Looking at this example, if a fab shop faced the phase-out for Section 179, 100 percent bonus depreciation provides a suitable replacement. And although an immediate federal deduction may be available under either, there could be differences in the way states treat these two provisions. There have been differences in the federal and state treatment of depreciation provisions for years. For example, a state may follow the federal Section 179 rules, but not fully follow the federal bonus depreciation rules. If that is the case, choosing Section 179 provides a better answer as it maximizes both current federal and state tax savings.

The Necessity for Tax Planning

Should a fabricator take bonus depreciation, Section 179, or perhaps some combination of both? Should it switch to the cash method of accounting? What about changing inventory methods for tax purposes? The answer depends on the circumstances, and all of these considerations take serious planning, including how each strategy may interplay with the other.

For instance, say a fabricator buys a large machine and chooses to depreciate it fully during the first year. This decreases the shop's reported taxable income substantially, reducing it to a lower tax bracket.

Because accelerated depreciation is already reducing 2018 taxable income to a lower tax bracket, other changes, such as the cash method, might be best implemented in 2019 or after, when the benefit of additional deductions could be better realized to offset income in a higher tax bracket.

Reliable forecasting is now more valuable than ever. Nobody has a crystal ball, but any fabricator that wants to implement the best tax strategies, and at the proper time, needs to know where its business is headed. With all the new options the tax law provides, a fabricator with the right tax strategy can have a competitive advantage. ■

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3D/ADDITIVE MANUFACTURING	NEW! F70: Additive Manufacturing and Hybridized Production & Workflows I Room B313	NEW! F80: 3D Additive Manufacturing Tools for Fabricators I Room B313		
AUTOMATION	NEW! F71: Profitable Benefits of Automation in the Job Shop B Room B314	NEW! F81: Automation Monitoring & Maintaining Your Machines I Room B314	NEW! F91: Embracing Variability for Better Performance In Planning and Execution A Room B314	
CUTTING/LASER	NEW! F72: Cutting Materials, Technology & Software - Nothing Has Changed...Except Everything! B Room B305	NEW! F82: Technologies for Waterjet & Plasma Advancements & Applications I Room B305		
FINISHING	NEW! C70: Top 10 Tips for Maintaining Your Powder Coating Operation I Room B301	NEW! C80: Key Elements of Spray Booth Design I Room B301		
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	F74: Roll Forming: Tooling Design and Advanced Techniques I Room B407	NEW! F84: Tube & Pipe Cutting I Room B407		
LEAN	NEW! F75: Lean Tools: Advanced Lean Design and Preventative (PM) and Predictive Maintenance Strategies I Room B309	F85: Lean Tools: Lean Journey Case Studies and Lesson Learned B Room B309		
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WELDING				
SEMINARS	W12: Metallurgy Applied to Everyday Welding - Room C110		8:00 AM	4:15 PM
	W15: Better Understanding of Welding Symbols - Room C212		8:30 AM	12:30 PM
PROFESSIONAL PROGRAM	W25: Session 14: Welding Metallurgy and Weldability Studies - Room C101		8:00 AM	10:30 AM
	Session 15: Honorary Symposium for Dr. John Elmer - Contributions to High Energy Density Welding - Room C102		8:00 AM	11:00 AM
	Session 16: Cladding and Dissimilar Joinings - Room C107		8:00 AM	10:30 AM

EXPERIENCE LEVELS

Use this key along with the Schedule-at-a-Glance to find the education level that meets your needs.

B Basic – Recommended for the attendee who is new to the industry or needs a refresher on the topic.

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A Advanced – For the attendee with several years of experience who is seeking more in-depth information.

Detailed Education Program session descriptions, speakers, pricing, room locations and more can be found at **fabtechexpo.com/edu**.

Memorable Morning with NASCAR Legend Kyle Petty

continued from p. 1

years. The shop makes use of all the latest technology. That includes Computer Numerical Control (CNC), English wheels, and other metal equipment typically found in fabrication. But it also includes proprietary tools and techniques that are used by the race team for competitive advantage.

Petty has lived through a period of massive upheaval in technology, equipment, and materials.

"Technology has changed everything — a few years ago, quarter panels and fenders were fabricated by hand," he says.

"Now they are stamped pieces of metal that are assembled."

The tide of change has swept across the entire field. General use vehicles that were traditionally 100 percent steel fabricated are now made with composites and a wide

variety of other materials. Carbureted engines, a staple of the stock car for so many decades, have been replaced by fuel injection. Similarly, composites are being blended with metals in many innovative ways to reduce weight and increase performance.

"The world changes," states Petty. "If we don't change along with the world, we get left behind."

Charity Work

Having enjoyed such fame and fortune from his career in racing, he makes sure he gives back in many ways. He began the Kyle Petty Charity Ride Across America in 1995, a cross-country charity motorcycle ride that raises funds for chronically ill children. Now in its 24th year, it has raised over \$18 million.

He also became involved with Paul Newman through sports car races. In 1998, he took part in a motorcycle ride in Florida that raised funds for Boggy Creek Camp, part of Paul Newman's Hole in the Wall Camp Association. His son Adam wondered why the family didn't have a camp of their own. After his son's fatal crash during a practice in 2000, he was determined to start his own camp. His parents donated 84 acres of land and Victory Junction became a reality.

A medically safe, yet exhilarating camp, Victory Junction challenges children who have a serious medical condition to try things they never imagined possible. As they conquer activities like zip lining and archery or experience bowling, fishing or swimming — children build confidence that will shape how they view the rest of their lives. The magic happens on lush, rolling hills of Randleman, North Carolina near Greensboro. Once children pass through its gates, the boundaries and limitations they live with on a daily basis disappear and they simply concentrate on having fun.

"The NASCAR community was instrumental in helping to bring Adam's dream to life," said Petty. "So many drivers helped make it a reality with their donations."

He delighted the crowd with stories like these and many more as part of an anecdotal journey through his life as a businessman, philanthropist, and as one of NASCAR's most respected drivers. He underlined some of the big lessons he learned: consistently striving for excellence, living up to your promises, teamwork, community, and commitment to family. Petty learned those things during his life in racing, growing up around race cars, and working on them. They form what he considers an essential component of his family's legacy. ■

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Lessons from Mom

For The Thielen Family, Manufacturing Remains a Proud Legacy.

Barb Dorumsgaard and Cynthia Blue are sisters and co-owners of NTM Inc., a Minneapolis machine shop and grinding house a few blocks east of the Mississippi River. 20 years ago, their mother Marianne assumed ownership of the company after the sudden passing of her husband, their father, Bob Thielen.

Dorumsgaard said she and her siblings have always been involved in the business to some extent, serving on the board or working in the shop, but it was Mom who picked up the pieces of NTM and held it all together for the family and her employees.

"They were partners in life," said Dorumsgaard. "She was a homemaker, a mother, an ally — she took care of everything while he grew the business. But she'd never actually worked there before then. It was extremely difficult for her after he died. We're just enormously proud of all that she has done for us."

Bob Thielen would also be proud. His wife, and now his daughters, continue to build on what he began — investing in various CNC tool and cutter grinders, lathes, and machining centers. And NTM was recently certified as a woman-owned business by the Washington, DC-based Women's Business Enterprise National Council — recognition that the two sisters hope will create growth opportunities for this 34-employee shop.

Though his death was tragic, what came after is not surprising. The two women "have manufacturing in their blood." Their grandfather Claude spent much of his life working at Northern Pump, a name with which most Minneapolis machinists are familiar. Their father worked there as well — during the day while starting his first machine shop at night. He later sold that business and opened NTM, developing several lines of cutting tools and tooling — including the Stubby brand of carbide shank boring bars. The women saw all this from an early age on, so when it was time for their mother to retire, it was only natural that they would alter their own plans and step up to the plate.

"I still remember that last board meeting at the end of 2016," said Blue. "After my Dad's shop manager Phil Graber died in 2011, we'd hired a CEO to run the company, but it didn't work out and we had to make a change. Everyone was sitting there looking at me and Barb, and someone said, 'Well, one of you has to be the president.'"

The sisters agreed that Dorumsgaard would take over. And Blue, who had just bought a cabin up north in preparation for her own retirement, would become vice-president.

continued on p. 28



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Utilizing Innovation to Drive Customer Service & Quality Improvements in the Coatings Industry

Being at the forefront of innovation and cutting edge process improvements has become an integral part of the Valmont Coatings philosophy. The adoption and development of technological systems is a vital component in securing a competitive advantage in today's market. The implementation of The Valmont Coatings Connector™ and GalvTrac™ demonstrates the company's innovative use of technology in the industrial coatings industry to improve customer service and quality.

Valmont Coatings Connector

Recognizing an ongoing need within the coatings industry for real-time dissemination of information, Valmont Coatings developed the Valmont Coatings Connector. This new customer communication solution means industrial coatings customers can:

- Obtain instant insight into order status
- Check the progress of action item requests
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elevate customer service expectations in the coatings industry.

"We are dedicated to providing an unparalleled customer experience," said Rick Cornish, Group President of Valmont Coatings. "The Valmont Coatings Connector helps us achieve this by sharing the power and insight of our operating system with our customers around the globe."

The Valmont Coatings Connector is the product of two distinct benefits that Valmont Coatings brings to the marketplace. First is a passion for customer service and improving the customer experience. The second is the extensive internal tracking system the company uses to manage its processes. After exhaustive customer research, Valmont Coatings realized the inherent value of sharing this information with customers.

Additional features of the Valmont Coatings Connector include:

- GPS-enabled facility locator
- Product fit calculator
- Listing of services and featured products

The Valmont Coatings Connector has been successfully tested and implemented at multiple sites in North America. Global implementation is expected to be completed in early 2019. To learn more, please visit



valmontcoatings.com/why-valmont/valmont-coatings-connector.

GalvTrac

The Valmont Coatings innovation team has also developed and implemented a new, proprietary factory management tool, GalvTrac. GalvTrac integrates with the existing computerized tracking system used at all Valmont Coatings locations. It provides operators with precise and repeatable process "recipes," specific to customer products, improving overall quality, minimizing material usage, and optimizing process times.

"We understand repeatable processes standardized across our facilities will provide more consistent results driving quality, product turn-time, and customer

satisfaction improvements. Utilizing technology enables us to do this while keeping pace with customer expectations. Our new GalvTrac system allows us to partner with our customers across our global locations to develop, improve, and deliver exact and precise galvanizing processes for their product," states Michael Michalski, Demand Creation and Innovation Director.

GalvTrac has been fully implemented at 27 galvanizing sites in North America and Australia; Valmont Coatings will complete the roll out of GalvTrac across all global coating locations by the end of 2018.

Visit the Valmont Coatings team at Booth B5416 for additional information or a demonstration of the Valmont Coatings Connector. ■

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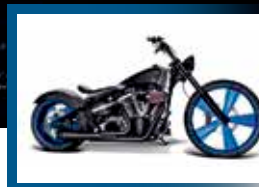
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The Rising Trend of Women in Manufacturing

The metal fabrication and manufacturing industry has adjusted in recent years to meet the demands of an evolving global economy — impacted by social, political, economic, and technological advancements that effect all aspects of the industry. In changing times and in a historically male-dominated industry, manufacturing

has seen a steady rise in women playing key roles in the industry — shaping the next generation of manufacturing to be more gender diverse, innovative, and rewarding for those who pursue a career path in this compelling field.

Women make up nearly one-third of the manufacturing industry workforce

today, from the production and assembly line to the C-suite. But that number has continuously risen and fallen over the last 30 years, bringing a sense of inconsistency to an ever-changing industry. However, there are several ways to ensure the trend of women in manufacturing continues to stay on the rise.



Modern manufacturing offers diverse and rewarding career paths. Encouraging more women to pursue STEM degrees allows for more career opportunities for women in the manufacturing industry, from engineering and design to business and leadership roles.

As technology advances change the way goods are produced — in terms of science, technology, engineering, and mathematics — it is vital that workers in the manufacturing industry excel in these competitive fields. Encouraging more women to forge career paths in the metal fabrication and manufacturing industry is beneficial to an industry that will see opportunities for innovation skyrocket as technology becomes more and more advanced. A STEM education is the best way for future generations of women to prepare for a career and to succeed in the industry.

Manufacturers can actively attract, retain, and support women in the industry by increasing the visibility of women leaders and mentoring the next generation of women in the industry.

The manufacturing industry must employ creative strategies to build the future pipeline of talent by engaging with younger females. For example:

- Female engineers should share career stories with students, as it is a very impactful way to inspire and sends a positive message about manufacturing.
- Companies should customize strategies for women with varying experience levels, using strategies like aligning recent female graduates with more experienced women in the organization.
- Highlight benefits, flexibility, and culture — as those are three factors that will attract talented women to seek careers in manufacturing.
- Consider how to retain and engage women at career points where work life balance becomes more complex by taking the opportunity to provide support, create alternate pathways, and customize career goals in times when women might need it most. ■

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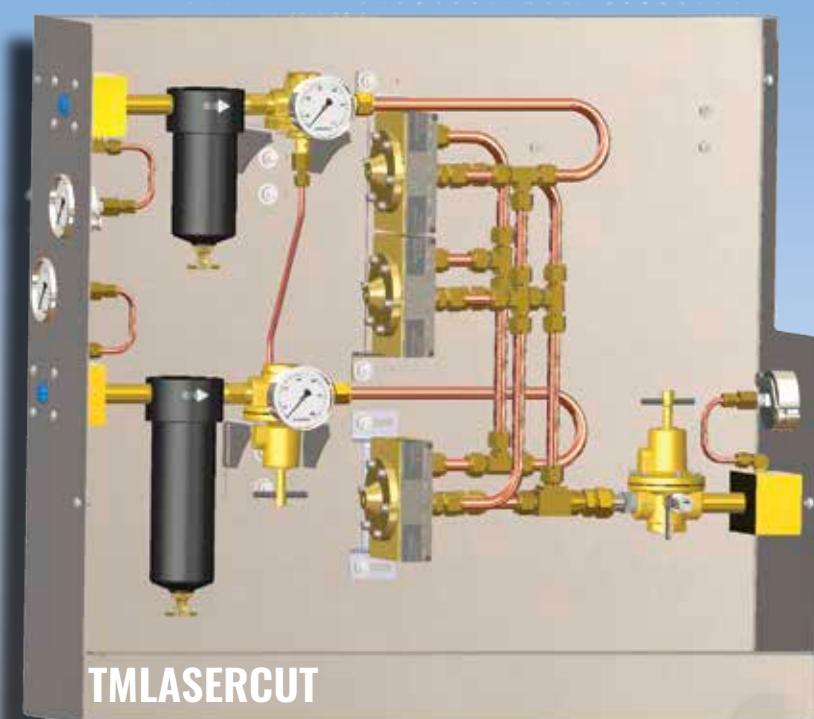
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Maintenance at Hersheypark Ensures Sweet, Safe Rides

continued from p. 15

"On wooden roller coasters, we have two, and sometimes a three-part inspection. Our carpenters will inspect the track systems and wood structure. The mechanics will inspect the coaster trains along with braking systems, and electricians will ensure that the control systems are functioning per OEM specifications," explained Chubb.

Year-Round Inspections and Regulations

These are just some of the tasks that need to be done to keep an attraction properly maintained and running safely. There are other tasks that take place on a daily, weekly, and monthly basis. According to Chubb, overhaul season is the busiest time for the year-round maintenance crew.

Every ride at the park gets a daily inspection. The park employs roughly 75 certified amusement park inspectors that check each ride. Mechanics come in as early as 4 a.m. to begin inspection. Other groups clock in between 5 a.m. and 5:30 a.m. Each ride has its own inspection procedures (some daily or monthly), all based on the manufacturer's requirement. There is registration of the rides each year by the Commonwealth of Pennsylvania. A certified inspector fills out an affidavit that a particular ride has been inspected through knowledge and testing. This is required monthly for this type of park.

Quality assurance inspectors, employed by the state, also visit the park to examine the safety of the rides. They do announced and unannounced inspections. The state also requires a list of the NDE inspections completed.

Maintenance During Operating Season

During overhaul, the park has one shift. When operating season approaches, the park runs three shifts: first, second, and third shift.

The first shift (4 a.m. to noon), will inspect each ride on a daily operating basis. As stated, each ride or attraction has its own, separate checksheet that is used by the person or persons conducting the inspection. This shift will also perform whatever preventive maintenance is required on the various equipment.

The second shift (7:30 a.m. to 3:30 p.m.), arrives several hours later and supplements the first shift by helping with

finishing up the daily inspections. After the inspections are completed and the park is open, this shift will lend a hand with any breakdown calls or assist with finishing up other work they may be responsible for.

The third shift (3 p.m. to close), comes in about halfway through the operating day and will monitor operations, respond to equipment breakdowns, assist with guest service calls (where someone may have lost an item on a ride such as a set of keys or wallet), and perform other maintenance as needed.

The Creative Minds Behind the Attractions

Amusement parks are a collage of technology and art designed to attract visitors. From Hersheypark's candy height chart to its colorful roller coasters, creating and designing the attractions are a joint effort between in-house staff and outside sources. The unique signs announcing your entry to the park, the street you're standing in, the type of candy you are (depending on your height), and the rides you're excited to experience are made from a variety of materials in addition to the in-house creatives — which include painters, sign artists, and more.

"They [the signs] can be made of aluminum, aluminum with a plastic core, fiberglass, and celtech (a form of plastic). Disposable signs can be made of coroplast, showcard (similar to high-density cardboard), along with several other materials," said Chubb.

Chubb noted two large format printers are utilized to print up to 60 inches wide.

"Most of the sign lettering and graphics are made from colored vinyl foil, so you can take an actual photo of something and make a sign out of it. Old school wise, we still do some hand painted signs," he continued. "Signs are erected using wood posts, steel or aluminum brackets, or steel posts — and mounted into the ground, concrete, or on a building."

Although in-house personnel at Hersheypark do not build the rides, they assign people during construction of new attractions so they know how they were built and operated.

"When we determine that we will be purchasing a new ride, we will work closely with a ride manufacturer to develop and design various ride elements," said Chubb. "We sometimes develop the ideas and

then the ride designer has to determine if the various ideas can be incorporated into the overall ride design."

Plans for the Future

Hersheypark debuted two new rides during Memorial Day weekend: Breakers Edge (water coaster) and Whitecap Racer (mat racer ride).

Breakers Edge Water Coaster is the park's first hydromagnetic water coaster with flying saucer turns. The four-person inline raft offers the thrill of a roller coaster. It gives a bobsled ride feeling as gravity drops the raft and smooth linear induction motors power riders up and down hills and turns. This water coaster has an estimated hourly ride capacity of 600 people and a ride time of about one minute.

Whitecap Racer is currently the longest mat racer in the world and will take guests 70 feet high as they race to the finish in six side-by-side tunnels to the bottom. Each rider speeds through two tight 360-deg loops, while open racing lanes with low separators allow racers to see and hear each other as they're competing, using a slider timing system.

Don't think the overall landscape of the park is complete. When it comes to new rides and space, Chubb makes it clear there is no limited space to the 121-acre park.

"Just about every year we put something new in," he said. "We have another area that we hope to expand in." ■



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4 Key Elements of Your Sales Overview Pitch

continued from p. 10

compelling reason to stay longer in your booth and add you to his short list of vendor candidates.

Keys to Your Pitch

Whether it's the long or short version, an effective sales pitch for high-dollar items contains four key elements:

1. Value Proposition — This short sentence describes for whom the offering is intended and the primary benefit or value.

"The easiest to use and most productive _____ available for the _____ industry."

Or, "Our product helps _____ people solve _____ by providing _____."

2. Credibility Statement — This short sentence explains why the potential customer should listen to the salesperson and consider the company and products offered.

"We are the world's largest provider of _____ and have solved _____ for customers just like you for the last two years."

"We are number one in customer satisfaction through independent market research."

"We spent _____ engineering hours developing and then field testing this new _____, so you can be confident it is robust and efficient."

The detailed version should include a list of short statements the salesperson can drop into the conversation that provide credibility regarding the salesperson, the company, or the offering.

3. Delivery on the Promise of the Value Proposition — This is a one-to-three sentence description of how the value proposition is delivered. Focus on benefits, not features.

"Using our _____ technology, we are able to produce three times faster than any other system, yet we have simultaneously reduced the steps in doing this to make it easier to use. That is how we are the easiest to use and most productive _____ available."

For the longer presentation version, provide a list of the top features and the benefit and value each delivers. This section provides the validation that you can deliver on the value proposition. Use relevant sales tools such as collateral, case studies, images, videos, and specifications. This should be an extensive list that includes every benefit and value that proves your points. The salesperson then picks and chooses which ones to use based on the situation.

4. Objection Prevention — This statement counters the most common objections the potential customer might have — before they come up.

"Some people might think that the increased productivity and ease of use means the price is not competitive, but with 2,000 systems shipped and our talented production and engineering teams, we have the unit volume and staff to keep us very competitively priced."

In the presentation version, detail the top few objections you expect to be mentioned and craft a thoughtful and persuasive response. Salespeople are trained not to bring up objections once they are into the detailed pitch, but they will be able to handle the common ones introduced by the potential customer.

Using the Pitch

The overview pitch for a new product is an outline. Sales reps should not memorize it. Instead, they should remember its themes and concepts. You might ask them to memorize a phrase, such as, "We spent three years and 10,000 engineering hours developing the _____." But even then, they should be free to modify the phrasing in actual use as they see fit.

All successful salespeople have their own ways of speaking and interacting with the buyer. Two salespeople can have completely different, equally effective styles. Respect this fact and explain that they are free to modify the pitch to their own styles.

A well-crafted overview pitch and supporting sales tools give your salespeople confidence, the key to success in sales. It's time to arm your sales team. ■

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Creating Workforce Opportunity with Manufacturing Skills Training

By: Dina Fattom, Workforce Development Specialist, SME

Earn a college degree, move to a major city, and land a white collar job in the knowledge economy — that's the path many millennials have been taught to follow. But that route isn't always viable. Crushing student loan debt, skyrocketing housing costs, and wage stagnation are making postgrad life unaffordable for many young people.



Pursuit of this traditional path is still important, but solid futures are available through vocational education and two-year degrees as well. More parents and students should recognize that even for students who do not seek a four-year degree, high school graduation should not mark the end of education, and that two-year degrees and certificate programs offer a pathway to outstanding, well-paying careers.

According to the Bureau of Labor Statistics, the average annual compensation in manufacturing, including wages and benefits, is \$85,097. Demand for skilled trade workers is surging. Better yet, training for a skilled trade is economically savvy and typically leads to a well-paying job, often in an area with a lower cost of living.

However, we must eliminate the myth — often held by both students and parents — that skilled trade careers are a subpar career choice. A skills gap in manufacturing exists — and it's time we encourage students, parents, and guidance counselors to recommend vocational schools after high school. It's time for state governments and industry alike to recognize the benefit of vocational training in high schools before graduation.

That skills gap is not going away any time soon, so what steps can we take to solve this issue and promote interest in manu-

facturing careers? First, we need to scale up training programs and access to skilled trade education. Many state governments

have noticed both the shortage in skilled trade practitioners and excessive enroll-
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Lessons From Mom

continued from p. 21

"Even though we'd been around manufacturing our entire lives, it was still a huge step," Dorumsgaard explained. "At that time, my youngest was a junior in high school, and I was kind of wondering, 'Well, what am I going to do next?' So, I started learning everything I could about the

business. I held regular meetings with our employees and I started looking at ways to market our capabilities and grow revenue. It's been difficult at times, but I've enjoyed it immensely."

Blue agrees. She's set aside her retirement plans to help. "This is where I need to be



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now," she said. "We don't know what the future holds, but right now it's very exciting and challenging. Barb has done a great job leading us, but we couldn't have done it without our employees. The one thing we learned from our mom is that the most important thing to consider when we make a decision is how it's going to impact employees. Nobody cares about this place as much as they do, and we in turn need to care for them. That's what's important in any business." ■

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Creating Workforce Opportunity with Manufacturing Skills Training

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ment in degree-granting institutions, and they're taking action. Michigan, California, and Florida are among the many states implementing plans to support career and technical education (CTE) programs and vocational education.

Teaching Through Doing

One American manufacturing advocate, Titan Gilroy, developed the TITANS of CNC Academy, a free machinist school that serves more than 28,000 students

and 1,500 teachers in 130 countries. Gilroy's academy teaches skills ranging from programming CNC machines to engineering and machining parts. Gilroy was asked on a recent LinkedIn thread how he gets younger generations excited about



a career in manufacturing. He responded, "I teach kids through the process of 'doing' from day one, and empower them to CNC machine parts within the first few days of walking into this trade. They learn the trade and then build confidence through repetition."

Clearly, it's time to rethink career planning. Manufacturing professionals need to educate local high school students and parents about skilled trade opportunities. We all need to help students reach for rewarding careers in manufacturing, and by doing so help close the skills gap. ■

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