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OFFICIAL SHOW NEWS | WEDNESDAY, NOVEMBER 12, 2014

Steelers Champion and U.S. Vet Rocky Bleier Shares Secrets of Success

Two years in a U.S. Army uniform and 11 years in Pittsburgh Steelers gear gave Rocky Bleier a unique outlook on life. And he's used that perspective to his advantage, motivating himself to continually make greater accomplishments.

Bleier sees parallels between the challenges he faced in the past and the challenges all business people face in today's crowded, competitive marketplace. Staying ahead of these challenges will be the subject of his talk this morning at 8:30 a.m. in the Thomas Murphy Ballroom. He will share personal stories and reflections

that show how determination and fortitude have helped him realize success after success, both personally and professionally. He also will be appearing at the FABTECH Industry Night held at the College Football Hall of Fame tonight at 5:30 p.m.

The Pittsburgh Steelers drafted Bleier in February 1968 and the U.S. Army did the same a year and a half later. While in Vietnam, Bleier sustained bullet and grenade wounds to his leg, basically ending a nascent football career according to his surgeon. Those were words Bleier refused to accept and two years later, after extensive physical therapy

and rehabilitation, he was back on the Steelers roster as a running back. Throughout the seventies he helped propel the Steelers to four Super Bowl championships.

His time in professional football and the military taught him the same sorts of lessons, and they reinforced one another. Each stressed the importance of teamwork and the sacrifices one has to make to accomplish the mission. And each emphasized individual responsibility and accountability; he felt at home in both.

But the military infused Bleier with some lessons that he couldn't

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DON'T MISS TODAY!

Keynote - Be The Best You Can Be
Rocky Bleier, Super Bowl Champion, Vietnam War Veteran
8:30 a.m., Thomas Murphy Ballroom, Bldg. B, Level 5

Big Data Integration for Manufacturing

10:00 a.m., Hangout with Google, Bldg. B Lobby, 2nd Level

State of the Industry: Executive Outlook

12:30 p.m., Room C101, Bldg. C, Level 1

FABTECH Industry Night

5:30 p.m., College Football Hall of Fame

Additive Manufacturing/ 3D Printing Resource Center

Hall A, Booth A2427

Manufacturing Talk Radio

Live Broadcast: 1:00 p.m., Hall B, Booth B5438

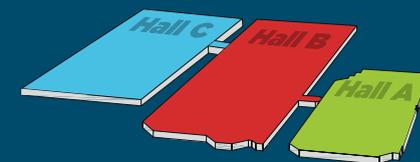
AWS U.S. International Welding Trials

Hall A, Booth A3338

Spin To Win

Hall A, Booth A3000
Chance to Win Prizes
10:00 a.m. - 5:00 p.m.

VISIT ALL 3 HALLS!



Hall C: Welding, Tube & Pipe, Thermal Spray

Hall B: Forming & Fabricating, Finishing, METALFORM

Hall A: Forming & Fabricating, Finishing, METALFORM, Welding

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Welcome to FABTECH 2014



Changing How U.S. Employers Think About Vets

In the past three years Joseph Barto and his consulting firm, TMG, have trained approximately 700 manufacturers on the nuances of hiring U.S. veterans. Sometimes getting companies to change involves a 2-3 hour conversation with a small machine shop. Sometimes the process involves going into a 350-person company and mapping out its current hiring practices and measuring what does and doesn't work. The end result, however, is the same — make employers more open to, and proactive in, seeking

skilled U.S. veterans as employees.

As FABTECH 2014 opened on Veterans Day, it was only fitting that the subject of hiring veterans came up throughout the day. Barto's company shows employers how to find suitable U.S. veterans for job openings. Employers fall into several categories, Barto says, with those with less than 50 employees accounting for 40% of U.S. jobs. He likens the hiring strategy his company advocates to recruiting key athletes for a college sports team. "If a veteran represents a coveted

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FIBER LASER TECHNOLOGY

1

NEW ZETA-7 FIBER TECHNOLOGY

The OPTIPLEX Fiber incorporates new Zeta-7 features that automate and optimize the Fiber laser process. This ground-breaking technology incorporates a new Mazak-exclusive head design and integrates intelligent automation features with superior cutting speeds to deliver greater throughput.

2

NEW NEXUS PERFORMANCE & VALUE

Introducing the OPTIPLEX NEXUS 3015 laser-cutting machine that delivers a cost effective solution that includes Mazak's cutting-edge Preview 3 control. This unique laser is available in a two pallet design and can be utilized with Mazak's extensive range of automation solutions.

3

NEW COMPACT AUTOMATION

Mazak will demonstrate a new vertical automation system on an OPTIPLEX 3015 Fiber laser-cutting machine. Mazak was the first company to patent a Flexible Manufacturing System for laser machines and leads the industry with a wide range of solutions. Over 700 Mazak laser machines are installed in automation systems in North America.



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Walmart Exec Seeks Partnerships To Bring Manufacturing Home

Walmart sells toys made at the Enor Corporation's factory in Winnsboro, South Carolina. The global retailer also sells televisions that are assembled at Element Television's nearby plant. In the past, the coincidence would have stopped there. Now, however, the two suppliers are talking about working together on manufacturing televisions for Walmart.

The idea came from a Walmart initiative that aims to boost U.S. manufacturing. Walmart has pledged to spend \$250 billion on U.S. made goods over the next 10 years. Already in its second year, the initiative isn't just about Walmart buying shelf-ready products. It's about building partnerships among its suppliers.

"We make [manufacture] nothing," said Cindi Marsiglio, Walmart's vice president of U.S. manufacturing (pictured below) at yesterday's keynote. "But we are finding a lot of success with facilitating connections."



Those connections, like the one above, could be an essential element of ramping up manufacturing here in the United States. Marsiglio said that Walmart can use its purchasing power and influence to assist U.S. manufacturers and suppliers to work together to find solutions. For example, she said it was too cost prohibitive for Element Television to manufacture all of its parts in the U.S. right now. But assembly costs here are competitive with other countries, so it makes sense to bring that component here.

Another daunting prospect for manufacturers is the scalability issue, since Walmart has more than 11,000 retail locations, 5,000 of them in the U.S., and ramping up domestic production can be costly and take time. "Some products are starting in limited stores, or are

sold only at walmart.com," Marsiglio said. "We're trying to help suppliers do the math with our resources."

Officials from 42 states attended a recent economic summit in Denver hosted by Walmart. They participated in a "speed dating" exercise where manufacturers talked with suppliers, Walmart representatives, and state officials to further explore partnership resources.

"There are lot more ways to work with Walmart than people realize," Marsiglio said. At the keynote presentation, an audience member asked what metal products would be prime candidates for products sold at Walmart. "Everything is on the table," she said. She challenges her team to walk the aisles of a store and see what could be made or assembled in the United States. ■

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All Aboard for FABTECHAgain

In 2006 Metcam, an Alpharetta, Ga.-based precision metal fabricator, sent about a dozen executives to FABTECH. Four years later managers made a bold move: On the second day of the 2010 Atlanta show, two buses arrived at the doors of the Georgia World Congress Center. They carried well more than 100 employees, from entry level workers to top-level managers.

This year Metcam is doing it again. Like four years ago, the company expects at least two busloads of employees will make the 25-mile trek to the convention center. The company expects at least 110 to attend, though they're anticipating even more.

Managers will give each employee \$20 for lunch as they get off the bus, and employees will split up by department: The welding department will walk the welding hall, the powder coating department will cover the finishing pavilion, and so on.

"Material handling will be a major focus for us," said Jerry Ward, Metcam's vice president. "Every time you pick up a part, it costs you money. Anything that

involves quick setup will be a major focus as well." He added that the fabricator's bonus program is based on overall throughput metrics, and employees will be looking on the show floor for solutions that will shorten their overall manufacturing time.

"We encourage people not to work harder, but to work smarter. The bonus program encourages employees to figure out how to do it faster," Ward said. "They know that if they can make the parts faster, they can make more money, because it contributes to the bottom line."

Much has happened at Metcam over the past four years. In 2011 the company rearranged much of its equipment into multiprocess cells, each with a cutting machine (punch or laser), press brakes, hardware insertion machines, and ancillary equipment. This effort, among others, led to some dramatic improvements. For instance, overall manufacturing time for one repeatedly ordered subassembly used to take weeks; it now takes less than 72 hours. On Monday morning, it's raw stock, and by Wednesday evening it's being loaded onto a truck that's headed for the customer's warehouse.

In 2010, Ward said, managers wanted to bring the staff to the show simply because most had never been to FABTECH before. They wanted to give as many people as possible a chance to see the metal fabrication industry's latest and greatest.

As it turned out, though, employees came back from the show with a lot of new ideas, particularly for the shop's assembly department. The fabricator now has numerous automatic shrink-wrap machines, and not all of them are in the packaging area. "We put a lot of them in the work centers," Ward said, "where they need to shrink-wrap material before the components move on to the next work center, to prevent damage."

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LENOX Enters the Precision Metal Cutting Circular Saw Market Introducing the CircTech Precision Platform

Brand Launches Inaugural Product, CircTech Precision CM for Cutting Carbon Steels and Mild Alloys

LENOX®, a leading manufacturer of premium saw blades and band saws for nearly a century, announces its much anticipated entry into the industrial precision circular saw market with the launch of the LENOX CircTech™ Precision platform. Expanding its metal cutting expertise and authority, LENOX used advanced cutting technology and state of the art equipment to develop the CircTech Precision platform to deliver the ultimate performance in Precision Circular Sawing.

“LENOX has made a significant impact in the global band saw market and we’re excited to be able to build on that presence within the precision circular sawing category.” Matt Lacroix, Director of Marketing, LENOX said. “In testing, our blades delivered on our end user’s most critical needs for blade life, cutting speed, and finish. While band sawing will continue to thrive due to its versatility and capacity for larger parts, we anticipate that LENOX’s precision circular sawing category will grow at an elevated rate due to our ability to help lower the total cost of operations for our customers.”

The CircTech Precision platform features an advanced tensioning system that allows the blade to maintain excellent plate flatness and tight tolerances, delivering consistent performance and exceptional part finish. The distinctive tooth design and innovative blade construction reduces vibration and stress risers, extending blade life and reducing the need for frequent

changeovers. The blade’s advanced tooth geometry provides smooth part finish and a thinner kerf, allowing for better material utilization and reduced scrap costs.

LENOX CircTech Precision CM

The first product available in the Precision program, the CircTech Precision CM is specifically designed for optimum performance when cutting low carbon steel and mild alloy steel solids. Built with a breakthrough manufacturing technique to produce crisp tooth edges and balanced grind angles, the blade’s special grade cermet tips extend blade life by delivering exceptional heat and wear resistance. The blades are also designed with optimized chip breaking that efficiently removes chips for faster cutting.

For more information stop by the Lenox booth # B2532.

About LENOX

LENOX, part of Newell Rubbermaid’s global portfolio of leading brands, began in 1915 with a 10-employee team and a passion for bringing customers hacksaw blades that cut faster and lasted longer. Now, nearly 100 years later, our passion hasn’t changed—but our team has grown to more than 900 people who manufacture and market the LENOX products in more than 70 countries. Our ISO 9001-certified facility in East Longmeadow, Mass., boasts a 500,000 square ft., 11-acre space for designing, testing and manufacturing power tool accessories, hand tools, band saw blades and accessories. ■

KMI Hoist Finishing Systems



Hoist used in pretreatment and E-Coat systems

KMI is proud to announce the addition of hoist finishing systems to its long list of finishing systems capabilities at FABTECH. This includes hoist pretreatment systems and hoist e-coat systems. These systems are designed in house using the latest 3D modeling and FEA software. Hoist capacities range from less than a thousand pounds up to multiple tons. From a simple one hoist system to a complex multiple hoist system, KMI is a one stop shop for a variety of finishing needs. KMI can also retrofit an existing finishing system. ■

Stop by booth #B803 to find out more about KMI products and innovative solutions.

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New Survey Shows Keys to Recruitment of Women to Manufacturing Sector

Women in Manufacturing, (WiM), a group of nearly 500 women dedicated to attracting, retaining and advancing women in the manufacturing sector, has released a new survey, co-produced with Plante Moran.

The survey of more than 870 women — including experienced women currently working in manufacturing and young women who are just beginning to consider their career options — offers several promising findings for the future of women in the manufacturing sector. Most importantly, the survey found that there is significant overlap between the top factors young women are seeking in careers and the factors manufacturing careers offer.

In the survey, young women ranked compensation as the most important factor they are seeking in a career, followed closely by work that is interesting and challenging. At the same time, more than 80% of women in manufacturing today say that their work is interesting and challenging and half of women in manufacturing say that compensation is the most significant benefit of the sector.

The survey also found that 74% of women working in manufacturing believe that the sector offers multiple career paths for women and that more than half of women in manufacturing today think that the sector is a leading industry for job growth for women. In addition, 64% of women working in manufacturing reported that they would recommend a career in manufacturing to a young woman.



But despite these high numbers, young women remain woefully unaware of the opportunities available to them in the manufacturing sector. Less than half of young women believe that manufacturing offers the interesting and challenging work they're seeking and less than 10% of young women placed manufacturing among the top five career fields that they feel offer the most opportunity for young women today.

The survey results were presented on September 30, 2014, the first day of the fourth annual WiM SUMMIT held in Schaumburg, IL. This year's SUMMIT was the largest gathering in the organization's history, bringing together a record number of women in the manufacturing sector.

"Because the survey focused both on women who are already in the manufacturing sector and young women outside the sector who are considering the wide array of career options available to them, the results are forward-looking and poised to benefit recruitment efforts," said WiM Executive Director Allison Grealis.

"On the whole, these survey results should be seen as a call to action in a space where there is great opportunity," Grealis continued. "When we know what young women are looking for in careers, we are in a better position to demonstrate how manufacturing can help them meet their aspirations. We have long known that women are good for manufacturing; and these survey results go a long way to showing that manufacturing is good for women, too." ■

[Learn more about this survey and WiM at Booth # B1660.](#)

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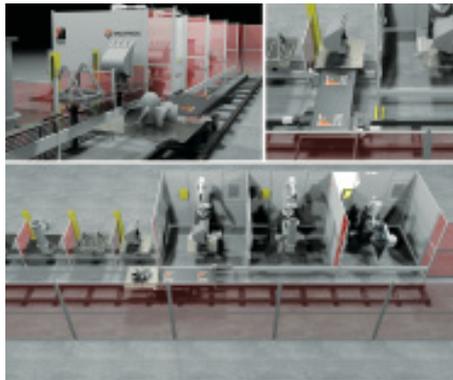
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Flexible Manufacturing Systems

The Future of High Mix, Low Volume Manufacturing



High mix, low volume production presents a unique set of challenges, challenges that Wolf Robotics has been dreaming up solutions for since its inception.

Wolf Robotics has developed products to allow for flexible manufacturing such as SmartDock, SmartGrid, and tool changing solutions. These tools allow for one robot and positioner to perform different production processes, and on very different parts. In some cases, single robotic systems have produced over three dozen different parts, or more.

Now, Wolf Robotics has taken high mix, low volume production to the next level, with the introduction of Flexible Manufacturing Systems, or FMS. FMS finally makes one piece production possible, thereby decreasing inventory and work in progress costs.

By incorporating WolfPack modular welding systems, and its line of flexible manufacturing products, Wolf Robotics has developed robotic solutions that reduce waste and increase production throughput.

In the past, robotic welding has typically been associated with producing parts with high volume runs, justifying the cost of the system. But what about facilities that produce a high product mix, and relatively low volume of specific models and parts?

How it works:

Different parts that are ready for processing are staged. A Wolf Robotics SmartCart travels along a track, then picks up the part and transports it to one of several WolfPack modular cells. After identifying the part, the robot automatically identifies the correct production program to run, whether it be welding, cutting, material removal or robotic CMM (coordinate measurement machine). After the production program has finished, the SmartCart removes the part from the cell, and transfers it back to the staging area. A worker then safely unloads the finished part, and may load a different part that is ready for production. This process continues on a defined number of robotic cells simultaneously.

Parts are loaded onto SmartGrid tooling while they are not in production, meaning that production can run continuously, without the need to stop production

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Dependable Wire Feeding

The new MobileFeed 201AVS is a versatile voltage-sensing wire feeder for use with any CV or CC welding power supply. MobileFeed is powered off the arc, so only the welding cable is required for basic operation. This feeder's high duty cycle of 450A at 60% ensures trouble-free operation for high-amperage applications. A quick-change four-roll feed unit provides powerful, dependable wire feeding and

quick, tool-less wire changeover. Small in size and extremely lightweight, it weighs less than 30 lbs. (13.6 kg) and is designed to fit through a 16" manhole.

Aluminum Welding Perfection

The new Aristo® MIG 4004i Pulse is a lightweight, multi-purpose power source for MIG, pulsed MIG, Stick, or TIG (Live Tig™) welding. The pulse function makes it ideal for advanced, spatter-free welding in aluminum. Inverter-based technology provides high energy efficiency. Seventy percent lighter than comparable units with a footprint that is 80 percent smaller, Aristo MIG 4004i Pulse is easy to transport and easy to use in confined spaces.

Victor Cutting Contest

Booth visitors can gain first-hand experience with the quality, performance, and safety of Victor oxy-fuel torches and regulators during the planned cutting competition at FABTECH. Products include the Victor 400 series torch with its patented ergonomic handle and Victor EDGE™ regulators, which feature SLAM™ (Shock Limitation and Absorption Mechanism) technology built into the adjusting knob for additional strength, safety, and protection of the regulator internals.



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Extending MIG Consumables Life

Tweco, the leader in MIG guns and consumables, has introduced the world's first contact tip to feature shielding gas injection ports that keep the tip cooler. By running cooler, Tweco medium- and heavy-duty Velocity MIG consumables extend parts life by 200 to up to 800 percent. The drop-in design eliminates threads, while the all-copper-to-copper connection improves arc stability and performance.

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The Tweco ArcMaster 401MST (MIG-Stick-TIG-Gouging) and ArcMaster 401S (Stick-TIG-Gouging) power sources improve performance in on-site and portable welding applications. These units respectively weigh 55- and 46-lbs. (about 25 lbs. less than the competition), have a 10- to 400-amp output, use 20 percent less primary power and deliver best-of-class welding performance, especially with cellulose 6010 electrodes.

Brilliant Oil & Gas Solutions

Stoody® Brilliant 308L T-1 CRYO gas shielded flux cored wire can be used to join AISI 304 in extreme cold applications such as construction and maintenance of liquid hydrogen and LNG transfer lines and storage vessels. Initially available in a 0.045" (1.2 mm) diameter wire, CRYO exhibits a spray like arc transfer, easy slag removal, and can be welded within a wide range of parameters. ■

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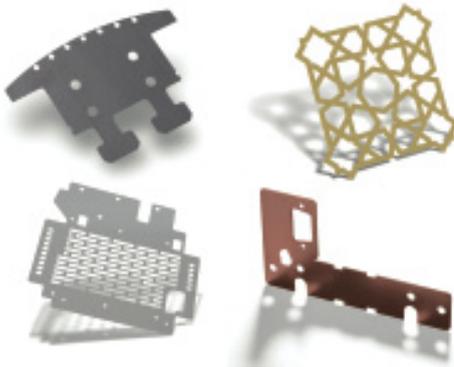
With the BySprint Fiber laser's high cutting speeds process reliability becomes more important than ever. Bystronic has equipped the 6 kW version of the BySprint Fiber with Cut Control to monitor the cutting process.

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Bystronic extends the BySprint Fiber portfolio with the addition of a 6 kW Fiber laser source for its 3015 and 4020 BySprint Fiber laser cutting machine formats. BySprint Fiber will be showcased with ByTrans Extended high-speed material and parts loading/unloading automation. This system is setting new standards for speed and productivity across a wide range of materials and thicknesses.



The higher power considerably increases the BySprint Fibers laser's cutting speed in the thin to medium range sheet metal thickness. For example, a 6 kW Fiber laser cuts 1/8th inch stainless steel up to 70% faster than a 4 kW Fiber laser. Its speed advantage is even more pronounced when compared to cutting the same material with a 6 kW CO2 laser source where the 6 kW Fiber laser is three times faster. Depending on the type of material and the sheet thickness, parts output can be increased by up to 400 percent. BySprint Fiber is highly flexible, low maintenance, economical machine to operate (up to 50% less operating costs than CO2 lasers).

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Flexible Manufacturing Systems continued from page 9

for staging of parts. This way the system does not have to be set up for production runs of specific parts. Entire families of parts can be produced as soon as they are needed, decreasing unnecessary inventory.

With FMS, time that was once unproductive can be utilized for manufacturing. For example: an

operator can load 4 different parts at the beginning of a lunch break. While the operator is away the FMS system will weld the individual parts without the need for operator intervention.

FMS systems effectively reduce work in process inventory, transportation, storage, set-up time and

overall processing time. High mix, low volume parts can effectively be automated, all while decreasing waste and improving throughput.” ■

To see a simulation of an FMS system, and learn how Wolf Robotics can optimize your high mix, low volume production, stop by C1250. Or visit us at Airgas booth C1334, or the AWS CRAW competition booth A2825.



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Fabricators & Manufacturers Association, International

NEW CNC CUTTING, WELDING AUTOMATION PRODUCTS AND PROCESSES FROM ESAB

A new compact cutting machine and high-productivity robotic welding cell with new tandem MIG welding process at FABTECH 2014 showcase leading-edge ESAB technology designed to meet today's production requirements.

ESAB's total system supplier approach provides complete solutions for more efficient and productive mechanized cutting and welding automation operations.

SMALL GANTRY, MULTI-PROCESS CUTTING MACHINE

The new SGX is a compact, automated cutting machine for plasma and oxy-fuel cutting, designed with ESAB's renowned technology made affordable for the small fabricator or manufacturer.

This rugged, high-performance machine carries up to three tool stations: up to two oxy-fuel torches and one plasma station that can be equipped with ESAB's m3-IGC Precision Plasma System for high-quality cutting up to 50 mm (2 in.) thick on mild steel, 38 mm (1.5 in.) on aluminum, and 25 mm (1 in.) on stainless steel.

A compact, rugged, easy-to-use design

Performance and accuracy are assured with a heavy steel beam, precision-machined mating surfaces, and linear rail. This rugged design ensures smooth motion, accuracy and long-term machine durability. SGX enables higher productivity with rapid cut-to-cut cycle times through the integration of dual-side, high-speed AC drives and a fast torch lifter.

SGX is engineered to meet your needs:

- The machine's compact design minimizes floor space requirements. One-meter rail increments keep the footprint small to maximize production space.
- Simple, automated operation makes the SGX easy to operate. A built-in process database in ESAB's Vision® T5 CNC fully integrates ESAB plasma and oxy-fuel process controls into an easy-to-use touch-screen interface.
- An oxy-fuel gas control automatically switches between low preheat and high preheat pressure. Ease-on cutting oxygen handles piercing of thicker materials.
- Gas controls are conveniently located at the side of the machine, where the operator has easy access and can see the torches while making adjustments.

Options to optimize production

SGX can be configured with a wide range of plasma options, from simple air-plasma systems up to fully automatic 360 Amp multi-gas plasma systems. The machine can be equipped with ESAB's m3 Plasma® for cutting up to 50 mm (2 in.) in mild steel. The m3 Plasma system achieves superior cutting results over a wide range of material types and thicknesses, and produces a high-quality cut face with low dross, requiring little secondary clean up. It features an automatic gas control integrated with the process database on the CNC for fast and easy process setup without the guesswork.

SGX is available in sizes to cover plates up to 2.5 m (8 ft.) wide, and up to two 6 m (20 ft.) long plates end-to-end. ESAB's newest cutting machine is offered with a choice of downdraft tables or water tables for dry or under-water plasma cutting.

HIGH PRODUCTIVITY PRE-ENGINEERED ROBOTIC WELDING CELL

The latest robotic welding solutions from ESAB include the Swift Arc SL side-load robotic welding cell with new tandem Swift Arc Transfer (SAT™). This pre-engineered robotic welding cell offers high flexibility and high throughput in a complete robotic welding system.

Flexible, automated welding solution

ESAB's Swift Arc SL side-load robotic cell with new tandem SAT delivers travel speeds well beyond the limits of normal spray arc welding for high-productivity automated welding. Swift Arc SL is designed for robotic welding of large parts at high production rates. Dual trunions manipulate parts from two sides, allowing welded parts to be unloaded and new parts to be loaded during the welding process for continuous "arc on" time.

Tandem SAT increases throughput

Enhancing the speed and productivity of the robotic cell is a new tandem SAT process that uses twin welding wires running simultaneously through the cell's robotic torch to deliver exceptionally high deposition rates. This high-productivity MIG welding process produces flat welds with good penetration and without undercut. Its low heat input results in less deformation. Less part deformation and limited spatter minimizes post-weld labor helping lower production costs.

Continuous production through superior wire feeding

The SAT process uses ESAB's OK AristoRod™ non-copper coated wires to reduce contamination of the feed system with copper particles. This results in dependable feeding properties and a consistently stable arc at high welding currents and wire feed speeds.

The Swift Arc SL is part of ESAB's Swift Arc series of pre-engineered, robotic welding cells available in four models: Swift Arc AL (angle-load), Swift Arc FL (front-load), Swift Arc SL (side-load) and Swift Arc ML (mobile learning) robot cells. Each

pre-engineered cell is a robust welding system that because of its modular configuration can be delivered and installed quickly. The robotic system comes ready-to-weld. Just hook up the input power gas and wire to start welding.

A complete work cell

ESAB's total systems approach provides a complete work cell that includes power source, technical support, close integration with robotics partner KUKA, and a knowledgeable applications team.

ESAB partners with KUKA to bring to market the latest in robotic welding technology. This partnership delivers high performance solutions with more standardized features for steel, stainless steel, aluminum or other non-ferrous GMAW applications. These robotic packages are easy to use and easily programmed for enhanced productivity and quality.

See these new products and processes in action at FABTECH booths C2444, C2454, and C2466 or visit www.esabna.com for more information.



INTRODUCING THE SGX: A compact CNC cutting machine that's heavy on features but light on your wallet.

- **Compact design:** The SGX requires minimal floor space. One-meter rail increments keep the footprint small and maximize production space.
- **Rugged:** Performance and accuracy are assured with a heavy steel beam, welded and machined construction, and linear rail.
- **Ease of use:** ESAB's Vision® T5 features an easy-to-use touchscreen and built-in process database for simple plasma and oxy-fuel setup.
- **Precision:** As an option, the SGX can come equipped with m3 Plasma® technology for high-quality cutting up to 50 mm (2 in.) thick on mild steel, 38 mm (1.5 in.) on aluminum, and 25 mm (1 in.) on stainless steel.

To learn more, go to esab-cutting.com

ESAB Cutting Systems / esab-cutting.com / 888.372.2288



SEE US AT
FABTECH 2014
AT BOOTHS
C2444, C2454
AND C2466.

POWER



There's a new team in town. The joining of ESAB and Victor brings together five heavy hitters. Now all the welding and cutting solutions you need are available from one company – ESAB.

Here's what you can look forward to in our booth at FABTECH.



Achieve aluminum welding perfection with the new Aristo[®] MIG 4004i Pulse and AlcoTec[®] NT wire.

- Developed with the experts at AlcoTec
- 50 pre-programmed synergic lines specifically designed for aluminum
- Complete control with the ability to customize your own lines



Enlist the WARRIOR[™] Multi Voltage unit with the new Mobile Feed and WARRIOR Dual Feed.

- Versatile unit with 230V 3-phase or 460V 3-phase power
- Mobile Feed extends reach moves wire feeding farther away from the power source
- Dual Feed increases productivity through a dual-feed system for multiple processes



LINEUP.



Get blown away by SGX – the latest small gantry cutting machine.

- Heavy steel beam, welded and machined construction, and linear rail ensure stability and accuracy
- Fully integrated Vision® T5 CNC has an easy-to-use touchscreen and built-in process database for simple plasma and oxy-fuel setup
- Small footprint requires minimal floor space
- Dual-side, high-speed AC drives and torch lifter deliver faster positioning for higher productivity for quicker cut-to-cut cycle times



The Tweco Spray Master™ meets its match with new, extended-life Velocity™ consumables.

- Velocity tip lasts longer and plays the dual role of tip and diffuser, allowing gas to flow through the tip and cool it by 30 percent
- Superior arc performance thanks to fewer electrical connections, better electrical contact, and a cooler tip
- Higher productivity with less downtime with fewer tip changes, less splatter, and less cleanup



Get ahead of the curve with the Swift Arc Side Load robotic welding cell with innovative, high-speed Tandem Swift Arc Transfer (SAT™).

- A cost-effective option for robotic welding of large heavy parts
- Tandem SAT translates into extreme deposition rates and great penetration in a single pass
- Tandem arc torch has an innovative design and top-notch cleaning system



Innovative Victor EDGE™ Series regulators offer unmatched safety and advanced performance.

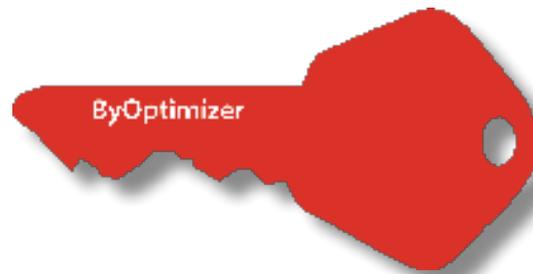
- Protected by patented industry-leading SLAM technology, this is the only regulator that is built to withstand a fall and direct impact
- Patented high-contrast gauge face offers the greatest amount of contrast available to allow users to see needle positioning from a distance
- High-strength alloy bonnet offers three times the yield strength as brass for even greater safety assurance

See us at FABTECH 2014 at booths **C2444, C2454, and C2466.**

Bystronic Introduces New Products to Their Laser, Bending and Software Produce Lines

continued from page 11

clamping systems, the Xpert and Xact press brakes offer unmatched efficiencies and productivity capabilities. The powerful yet easy to operate, ByVision Bending control uses a full 22 inch HD touch screen to display realistic 3D part animations and software driven menu selections. With its comprehensive database of material bend angles and bend allowances, ByVision Bending control can make a bending professional of every user from the very



first experience. The servo-hydraulic Xpert press brake with dynamic press brake technology is the only press brake on the market that introduces no angle errors itself with a ram positioning accuracy of .00015-inch. The high-speed, servo-electric Xcite 80 E press brake compliments the most demanding of parts volumes generated by today's high-speed Fiber laser cutting machines.

ByOptimizer, a new Cloud based sheet optimization service with patented Cluster Technology makes its North American debut during the show. This revolutionary service offers users unprecedented access to large scale computing power to quickly calculate highly efficient material optimization routines and reduced cut times, generating less material waste and increased capacity.

New Press Brake Tooling

Also being introduced is Bystronic's new Bystronic XPT and RF-A tooling series. XPT tooling is compatible with existing Wila® NSCL II type hydraulic clamping and tooling systems, offering customers the flexibility to expand upon existing tooling systems while taking advantage of the expert applications and superior press brake support from Bystronic. The Bystronic RF-A tooling is a revolutionary new tooling that maintains high quality tooling features, with the added benefit of increased open height and 100% compatibility with the Bystronic bending database at the machine control. Features include self-seating and segmented front-loading tooling technology for faster tool setups, precision ground and hardened surfaces for long tool life, and the RF-A upper and lower hydraulic clamping systems. Bystronic offers RF-A as an option on all new Bystronic press brakes sold in North America. ■

Stop by the Booth (#B2225) to learn more about The Bystronic Experience: Power, Performance and Profit!



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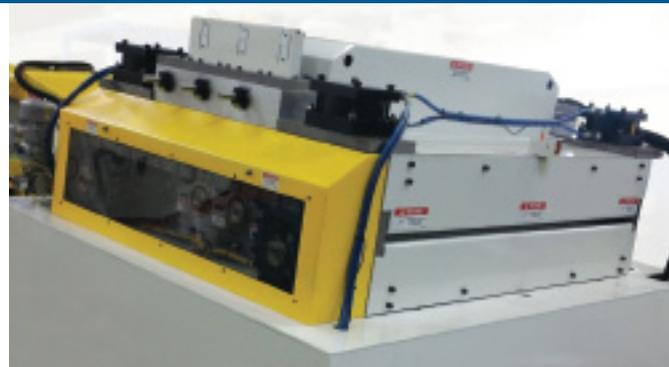


Our new HD Series Power Straighteners – designed specifically for processing AHSS

At COE Press Equipment, we believe that there is always a better way. So, we've recently applied our engineering knowledge and application experience to design a series of straighteners specifically aimed at overcoming the challenges of processing Advanced High Strength Steels (AHSS).

HD Series Processing Capabilities

Thickness from .010" – .620"
Widths up to 78" Wide
Yield Strengths up to 1000Mpa



Visit booth #B1624 to see the technology behind our new HD Series Straightener.

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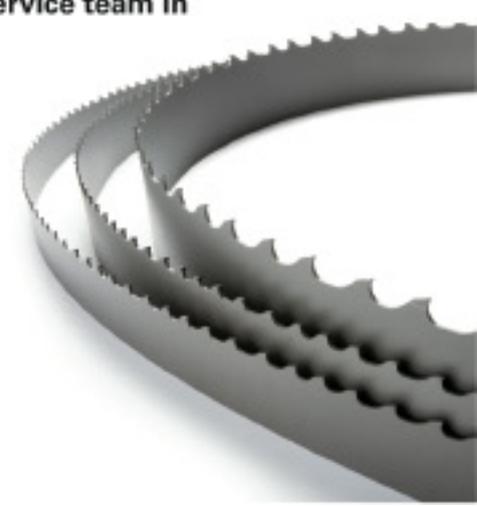
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IT CUTS THROUGH EVERYTHING.
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The new **MAX CT** carbide band saw blade delivers longer life and faster cutting* in difficult to cut materials like stainless steel, titanium, and nickel alloys. And, like all LENOX saw blades, it's backed by the largest sales and service team in North America. So your total cost of operations is cut, guaranteed.

*vs. prior LENOX model

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EDUCATION PROGRAM

On-site registration for paid educational events is available in Hall A/B registration lobby (forth level) and Hall C lobby.

WEDNESDAY, NOVEMBER 12		SCHEDULE-AT-A-GLANCE	
TECHNOLOGY	8:00 a.m. – 10:00 a.m.	10:30 a.m. – 12:30 p.m.	1:30 p.m. – 3:30 p.m.
FINISHING	C40: NEW! Safety and Regulations for Powder Coating B Room B201	C50: NEW! Trends in Powder Coating Materials I Room B201	C60: NEW! Troubleshooting Your Powder Coating Operation I Room B201
	C41: NEW! Advances in Pre-treatment Technology I Room B202	C51: NEW! Successful Team Building in the Finishing Industry I Room B202	C61: NEW! The Evolution of CARC Coatings I Room B202
	C42: Efficient Curing with Infrared for Industrial Finishing B Room B203	C52: NEW! Conceptos Avanzados de Pintura en Polvo en Español A Room B203	C62: NEW! It's All About the Details I Room B203
STAMPING	S40: NEW! Die Protection and Sensor Basics B Room B209	S50: NEW! Advancements and Best Practices for Die Protection and In-Die Sensing I Room B209	S60: Monitor and Adjust In-Die Processes A Room B209
	S41: NEW! Introduction to Sheet Metal Formability Analysis, Engineering and Simulation B Room B203	S51: NEW! How Lightweighting Materials and Their Properties Influence Die Design, Press Selection and Maintenance Routines I Room B210	S61: NEW! Springback: Recognizing, Predicting and Responding to Variation in Sheet Metal Stamped Parts I Room B210
LASERS & CUTTING	F40: NEW! Cutting: Built-In and Full Process Integration I Room B214	F50: NEW! Understanding Cutting Technologies and Standards B Room B214	F60: NEW! The Multiple Uses of Laser Metal Deposition I Room B214
LEAN	F41: Lean Principle: Standardized Work for Shop Floors and Leaders I Room B203	F51: NEW! Lean Supply Chain and Customer Management A Room B203	F61: Lean Tools: 5S and Visual Workplace I Room B203
MANAGEMENT	F42: NEW! Lean Management: Techniques and Principles I Room B207	F52: NEW! Marketing Tools for Creating A Competitive Advantage A Room B207	F62: NEW! Innovative Leadership Strategies I Room B207
WORKFORCE	F43: Workforce: Managing and Developing the Next Generation I Room B213	F53: Workforce: Building a Competency-Based Training and Development Program Workshop A Room B213	F63: Workforce: Identifying and Recruiting Employees to Maximize Success I Room B213
JOB SHOP SOLUTIONS	F44: NEW! Tracking Parts and Materials Through the Job Shop A Room B208	F55: NEW! Solutions for Joining Sheet Metal B Room B208	F64: NEW! Safety in the Job Shop B Room B208
FORMING & FABRICATING	F45: Press Brakes for Engineers I Room B212		
TUBE & PIPE	F46: Tube and Pipe Mill: Back to the Basics I Room B211	F57: Advancements in Welded Tube Production I Room B211	
AUTOMATION			F66: Automated Deburring: A Surprising Cost and Time Savings with Tech Tour B Room B211
WELDING			
SEMINARS	W17: ASME Section IX, B31.1 & B31.3 Code Clinic - Day 2 • Room C301 8:00 a.m. – 5:00 p.m. W18: Metallurgy Applied to Everyday Welding • Room C207 8:30 a.m. – 4:30 p.m. W19: Welding of Stainless Steel (Basics) • Room C208 8:30 a.m. – 4:30 p.m.		
CONFERENCES	W24: So You're the New Welding Engineer - Day 2 • Room C302 8:00 a.m. – 5:00 p.m. W26: Thermal Spray Technology: High-Performance Surfaces • Room C201 8:00 a.m. – 4:45 p.m.		
RWMA SCHOOL	W28: RWMA Resistance Welding School - Day 1 • Room C110 7:45 a.m. – 5:30 p.m.		
PROFESSIONAL PROGRAM	W31: Session 9: Keynote Presentations • Room C210 8:00 a.m. – 10:00 a.m. Session 10: Advances in Nondestructive Testing • Room C210 10:00 a.m. – 12:00 p.m. Session 11: Progress in Filler Metals • Room C211 10:00 a.m. – 12:00 p.m. Session 12: Updates on Industrial Technology - 1 • Room C210 2:00 p.m. – 6:00 p.m. Session 13: Developments in Friction Stir Welding - 1 • Room C211 2:00 p.m. – 6:00 p.m.		
EDUCATIONAL SESSIONS	W36: AWS Educational Sessions • Room C213 8:00 a.m. – 5:00 p.m.		
SPECIAL PROGRAMS	AWS U.S. Invitational Weld Trials • Booth A3338 8:00 a.m. – 5:00 p.m. Thermal Spray Wire Arc Demonstration (Hourly) - Day 2 • Booth A2927 8:00 a.m. – 4:45 p.m. Robotic Arc Welding Contest • Booth A2825 9:00 a.m. – 2:00 p.m. The Road to ATC Status • Room C212 1:00 p.m. – 2:00 p.m. Robotic Arc Welding Contest - Awards • Booth A2825 4:00 p.m. – 4:30 p.m.		

EDUCATION PROGRAM HEADQUARTERS: AWS, Room C206 • FABTECH (FMA, SME, PMA, CCAI), Room B206

Don't Miss the Live Thermal Spray Demonstrations in Hall A

The International Thermal Spray Association, a standing committee of the American Welding Society is excited to announce a live demonstration of a thermal spray process during the FABTECH Show. "After seven years of hosting a Thermal Spray Pavilion on the welding show floor and five years of presenting the "What is Thermal Spray" presentation, we are thrilled to expand upon our efforts to show everyone what thermal spray looks like and educate on what can be done with the process. We were always excited to tell our story, but being able to let people see and feel the process takes it to another level!" stated Bill Mosier, ITSA Chairman and President of Polymet Corporation in Cincinnati, Ohio.

TSA will be thermal spraying business cards every hour on the hour during the exposition at Hall A, booth A2927 so that everyone can leave with an actual coating example. Please come by the demonstration area to experience thermal spray. ■
See our advertisement on page 20.

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All Aboard for FABTECH ...Again

continued from page 4

Considering all the changes at Metcam during the past four years, employees will walk the show with a fresh perspective this time around. After the event, each team will give oral presentations. Today Metcam has kaizen teams, and those team members will use information from those FABTECH presentations to prepare for future kaizen events.

Managers also plan to recognize staff who give the best recommendations from their FABTECH experience.

The Fabricator already has done eight kaizen events this year, and Ward said he hopes the frequency of kaizens continue. Ultimately, having more than 110 employees walk the show floor is just another part of the company's overall improvement efforts. ■



First Look at 2015 New Products!

Visit us at Booth # C-1744
for information and product demos

New Products from PFERD!



PFERD has developed more than 300 new and innovative products since the release of TOOL MANUAL 21. These products are all described in a new, 40-page full color brochure. Get your free copy at the PFERD booth today! Product demonstrations are running in the booth!

- POLIFAN® CURVE 6" and 7"
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- Coated Abrasive Discs
- NEW Non-Woven Discs
- NEW Polishing Discs



TRUST BLUE

Mazak Optonics Corporation: Leading Edge Laser-Cutting Technology

Mazak Optonics Corporation is a major supplier of laser-cutting and automation systems, offering over 50 different laser-cutting models and leading the industry in the implementation of emerging laser technologies. The company's 50,000 sq. ft. North American Headquarters is located in Elgin, Illinois, and feature a 30,000 sq. ft. laser technology center housing up to 18 machines for demonstrations and training.

Visit the Mazak Optonics booth B3525 to view the new OPTIPLEX 3015 Fiber laser-cutting system with an Intelligent Multi-Function Torch and Nozzle, an efficient and customizable Tekmag Compact Automation System, and the world premiere of the brand new OPTIPLEX NEXUS 3015 CO2 laser-cutting system.

OPTIPLEX 3015 Fiber with Intelligent Multi-Function Torch and Nozzle

The brand new Intelligent Multi-Function Torch and Nozzle Changer features breakthrough intelligent functions to automate and optimize the OPTIPLEX Fiber laser process. This new technology incorporates a Mazak-exclusive cutting head which reduces operator dependency and improves cut quality and productivity, especially for challenging varied workpiece materials. The intelligent functions include beam diameter control, nozzle changing, focus calibration, auto focus control, pierce sensing, plasma detection and burn detection.

Compared to conventional laser processing machines, the OPTIPLEX Fiber significantly increases

the productivity of thin to thick worksheet cutting with impressive accuracy. It is also designed to process reflective materials at greater speeds than its CO2 counterpart and can significantly reduce operating costs for applicable material types and thicknesses.

The OPTIPLEX Fiber uses the new Mazak Preview 3 CNC Control which features a user-friendly 15" touch-screen control and automatically determines the required processing conditions for the material, prior to cutting.

The OPTIPLEX 3015 Fiber also adopts a "building block" approach for laser capacity growth, meaning it easily integrates into Mazak automation.

Mazak Advanced Automation Solutions

As a leader in laser-cutting system automation, Mazak offers a broad collection of automation and storage solutions ranging from sheet load/unload systems to automated storage/retrieval systems. Each product operates with Mazak Line Controller software which offers a significant increase in efficiency by minimizing machine downtimes. Mazak will be featuring a Compact Vertical system which is able to automatically and quickly move large volumes of material while occupying minimal space.

World Premiere OPTIPLEX NEXUS Laser-Cutting System

The OPTIPLEX NEXUS was developed to fulfill the need for a laser that provides significant performance features at an economical initial investment. It is



available in single fixed table, manual table, or automated two-pallet configurations which are modular and can be upgraded in the future. The NEXUS has been designed with the flexibility to integrate with Mazak's large range of material automation solutions including load/unload and flexible manufacturing systems. It also features Mazak's leading-edge Preview 3 control, offering integrated technology and a user-friendly 15" touchscreen.

Learn More

For more information on Mazak Optonics Corporation's products and solutions, stop by booth # B3525. ■

SEE THERMAL SPRAY LIVE DEMONSTRATION FIRST TIME EVER AT



What Can Thermal Spray Do For You?

• THERMAL SPRAY CAN:

- ▶ Resist Abrasion, Adhesion, and Fretting
- ▶ Improve Temperature Resistance
- ▶ Improve Corrosion Resistance
- ▶ Improve Electrical Conductivity and/or Resistivity
- ▶ Maintain Mechanical Properties of the Substrate
- ▶ Rebuild Worn or Mis-Matched Parts

• BENEFITS:

- ▶ Better Performance
- ▶ Longer Component Life
- ▶ Decreased Maintenance
- ▶ Inventory Reduction
- ▶ Reduced Replacement Costs
- ▶ Less Downtime – More Production

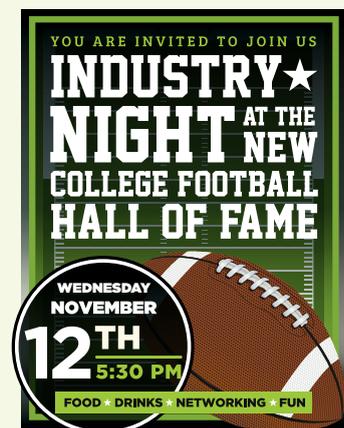
• TYPICAL APPLICATIONS:

- ▶ Hard Chrome Replacement
- ▶ Roll Surfacing
- ▶ Cutting Edges
- ▶ Wear Surfaces
- ▶ Corrosion Resistance
- ▶ Localized Coating and Dimensional Restoration



Demonstrations every hour on the hour. Industry representatives will be available to answer questions. Attendees will receive a 36-page "What Is Thermal Spray?" publication which highlights processes and industries served.

FABTECH Expo November 11-13, 2014 Atlanta, GA / Hall-A Demo Area



FABTECH Industry Night

5:30 – 7:30 p.m.

Location: College Football Hall of Fame

Join your industry colleagues for a night you won't soon forget! Enjoy food and drinks while connecting with old friends and new peers at the brand new College Football Hall of Fame in Atlanta, within walking distance to the Georgia World Congress Center.

Advance ticket purchase required. On-site tickets are \$75 and includes admission to the College Football Hall of Fame, customized fan experience to your favorite college team, cocktails and hors d'oeuvres. *(Limited availability. Tickets can be purchased at any of the registration locations: Hall A/B registration lobby (fourth level) and Hall C lobby. Find details at fabtechexpo.com/industryntight.*

Presenting Sponsor:



Are You Spotting the Risks in Your Manufacturing Process?

Stop by the Travelers booth, # B3508 to find out how you can get ahead of your risks.

From sourcing raw materials to manufacturing finished goods to delivering products to customers to satisfying warranty commitments, successful manufacturers now look at their supply chain holistically. At every step of this new supply chain paradigm, there are opportunities to improve, efficiencies to capture, and risks to manage.

There are multiple aspects of a supply chain that can break down and disrupt operations, especially when working with international suppliers. Consider these examples:

- Will it get to you when you need it? Keeping a manufacturing plant operating at full capacity requires a dependable flow of materials. A plant can be idled unexpectedly when a tsunami in Japan puts suppliers out of business, or volcanic ash high above Europe grounds the air transport scheduled to deliver materials to a manufacturer.

- Will it be what you ordered? Manufacturers issue specifications for both the quality and functionality of materials they expect to get from suppliers. But counterfeit components are a growing concern, as demonstrated by the seizure of 64,000 fake automobile parts in Dubai last year. The parts, which carried the brand names of major automotive companies but were only shoddy counterfeits, were declared a major threat to safety and destroyed. In addition to counterfeits, contamination of raw materials can be an issue, through either the deliberate substitution of cheaper ingredients or the lack of proper handling and quality control by suppliers. Getting the wrong materials, especially if the problem is not caught before the manufacturing process, can severely impact the quality of a company's finished goods.

- Will it affect your reputation? The source of supplies can come back to haunt a company, as the Bangladesh factory collapse did for clothing retailers, or as alleged

mistreatment of Chinese factory workers did for a technology company. In today's hyper-connected world, the integrity of a supplier has implications for the manufacturer because customers often react to scandals by shunning the associated products.

These supply chain risks are well-recognized, but many others lurk within a manufacturing operation. The failure of both equipment and human assets can put an operation at risk.



continued on page 22

TIRED OF RACKING YOUR BRAIN?
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You should. Custom designed and engineered paint racks and hooks from PPC Magic Rack® not only ensure defect-free finishes; they also make optimum use of rack space for maximum parts density and improved productivity.

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- Unique patented Magic Rack technology protects electrical connecting points from paint build-up to reduce maintenance and replacement costs.
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FINISHING Featured Products on the Show Floor

CCAI's FINISHING Pavilion features a wide array of products and services for finishers. Here are some highlights!

Finishing Brands: Booth B625

From automated systems, spray guns, tanks, pumps and complete fluid handling systems, to 2K solutions and curing equipment for traditional, electrostatic and specialized operations, Finishing Brands has equipment and staff in their booth to answer product and finishing operation questions, including a number of new product innovations.

Pneu-Mech Systems Mfg. LLC: Booth B700

Pneu-Mech Systems offers custom engineered drying and curing solutions that are designed to work with the customer's production, finishing and footprint requirements. A variety of ovens including infrared (IR), convection, high velocity, electric and batch are featured.

Fostoria Process Equipment, a Division of TPI: Booth B725

The Fostoria Process Equipment Division of TPI will showcase its complete line of modular paint and powder coating application spray booths, modular batch curing ovens, wash systems, and infrared boost and gel systems. Most equipment can be ready to ship within 4 weeks and assembled on-site.

KMI Systems Inc.: Booth B803

KMI custom designs various types of finishing systems. From e-coat to powder coating to paint, these systems must be reliable, environmentally friendly, require low maintenance and low operating cost and produce high quality finishes.

Exel North America: Booth B347

Exel North America will showcase a variety of products including the new NANOGUN MV designed for spraying both 1K and 2K solvent and waterborne materials. It delivers high-efficiency paint coating technology; increased paint savings and reduced VOCs; high level of paint coating uniformity and more,

Mighty Hook: Booth B714

Mighty Hook is showcasing its new Snap On Load Bars (patent pending) which increases line density on existing conveyors with minimal labor and cost. They are made of .250" steel, and incorporate stainless steel retaining clips for durability. They are available in four standard sizes that fit most trolley spacing for I-Beams or enclosed track conveyors.

Magic Rack: Booth B615

Custom made Heavy-Duty large parts finishing racks offer 600 pound capacity with removable dolly, drip pan, handle, crossbars and hooks for off-line loading and unloading, transporting, washing, painting, and curing. All are made in the USA and are customized for maximum line density and designed for inclines/declines with maximum control.

Midwest Finishing Systems: Booth B425

Learn about Midwest Finishing Systems Coat-N-Cure®, an entry-level system designed with a manual coating booth, energy efficient convection cure oven, and a complete conveyor system. This allows users to establish themselves in powder coating quickly and cost effectively.

Kolene Corporation: Booth B632

Kolene Corporation, celebrating 75 years of solving industry's toughest cleaning problems, will present Rack Stripping — in-line/on-line for greater efficiency, quality and cost savings. The Kontinuous™ paint stripping systems deliver 100% stripped racks every pass, at normal line speeds.

TTX: Booth B400

TTX® Cabinet Washers feature small footprint with all the attributes of a traditional pretreatment system.



Nordson Diaphragm Pumps

Nordson: Booth B715

Nordson Corp. introduces its complete line of diaphragm pumps for liquid painting applications. ■

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Are You Spotting the Risks in Your Manufacturing Process?

continued from page 21

While in most cases a broken machine can be repaired or a different worker can be hired, the real risk comes from that single point of failure that can make it difficult for a company to meet their commitments to customers. These are examples of the bottlenecks that must be identified and addressed for effective risk management.

Travelers is a national insurance carrier with more than 100 years of experience insuring manufacturers. Our IndustryEdge® line of products and services include tailored coverage's — including global exposures, risk management resources and responsive claim handling.

Coverage for all claims or losses depends on actual policy or bond provisions. Availability of coverage can depend on our underwriting qualifications and state regulations.

Stop by Booth B3508 and take a brief interactive supply chain pressure test to uncover and avert potential risks in your supply chain before they emerge. ■

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JUNE 12TH, 12:37 P.M.

A LUNCH INTERRUPTED AND A COMMITMENT KEPT

IN AN INSTANT, DAN PARK REALIZED THE VALUE OF HIS CNA INSURANCE POLICY

Dan picked up the phone and then dropped his fork. The supplier he was counting on for the materials he needed to meet a client's deadline was not able to deliver on time due to a fire in his plant. That's when Dan remembered he had dependent property coverage as part of his policy with CNA. After a quick review of his supply chain plan, specially built for him with his independent agent and CNA experts, Dan was able to call a new source for the materials, and CNA even picked up the cost to expedite shipment, allowing Dan to meet his client obligations without leaving his chair. Enjoy your lunch, Dan.

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Using Metrology for a Competitive Advantage

Manufacturing is one of the most challenging industries in the world of business. Foremost, it is highly competitive and attention to detail is crucial. Secondly, structural costs and regulatory compliance increase costs of doing business, leaving manufacturing companies continually looking for opportunities to reduce costs, improve productivity and increase profitability.

When it comes to major investments, companies have primarily focused on the manufacturing side of the business as it adds value to the product. As more competitors improve their manufacturing technologies, the opportunity for competitive advantages decreases. The search continues for yet another competitive advantage. As other areas of the business are analyzed, non-value-add areas are reduced or eliminated. When you have seemingly looked at every aspect of the business for a winning edge, what else can be considered?

Take a look at measurement technology. The metrology marketplace has dramatically changed over the last decade. There are far more products and emerging technologies to consider, such as laser trackers, portable arms, noncontact scanning systems, ultra-high-accuracy bridge CMMs, shop-floor CMMs, multisensor and optical measurement systems. User interfaces have improved greatly, so shop-floor personnel can be trained with a short learning curve. As an early adopter, you will learn how to apply and leverage groundbreaking advancements, making headway against your competitor.

Frankly, it does not matter whether you consider quality assurance as a value-add or a non-value-add component of manufacturing. Verification is an es-



sential element of production. Using the right solution for dimensional control, the user can perform inspections faster, more accurately and more efficiently, allowing the operation to move on to the next process.

Historically, measurement technology has been overlooked as a competitive advantage. In order for a cultural shift to occur, management buy-in is a necessity. Why, then, is management overlooking a hotbed of profitability? Given the complexity of the business, management is hard pressed to focus on every aspect of production.

Additionally, compared to the company as a whole, few people may know how to use metrology so it is not at the forefront of management's mind. Times have changed, and today metrology tools are not only used for quality and inspection purposes, they are also being used during the design and manufacturing process.

To maximize the benefits of new measurement technologies, you have to get management's attention, and fi-

nancially prove the benefits. Will changing the process improve performance? Consider the range and size of parts being measured including the size, quantity and tolerances. There are also ROI calculators, white papers and videos to support your journey.

Measurement technology is a competitive advantage and it can be used throughout the product lifecycle.

A natural place to start is with the current technology. Is the current process productive? Are there bottlenecks? Is old technology getting in the way? For example, companies may have been forced to use a coordinate measuring machine (CMM) to meet a customer's requirements. The smallest investment possible may have been made, likely a manual CMM. Today the number of parts measured may have increased and manual measurement may present a bottleneck. Could a newer automated CMM do the job more efficiently? Is data being gathered and utilized effectively?

Measurement technology is a competitive advantage and it can be used throughout the product lifecycle. The data collected during verification can be used to improve manufacturing and verification throughput. Inspection data can also be utilized to lower design cost, eliminate scrap and rework, and reduce material cost. All of these factors will improve profitability.

It is critical that you close the loop. Unless the knowledge gained from the verification process is incorporated into all of your business processes, your investment will not be fully maximized. Take what you have learned, and integrate it, implement it and utilize it. Verification intelligence must be disseminated throughout the company, so everyone knows how to capitalize on the competitive advantage. ■

*Article by Jeff Freeman,
Director,
North American Sales Operations
Hexagon Metrology North
Kingstown, RI*

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Steelers Champion and U.S. Vet Rocky Bleier Shares Secrets of Success continued from page 1

learn as quickly anywhere else. Being thrown together with people from such different backgrounds was an eye-opener for him. The Army showed him a lot about leadership that he's carried with him in business after retiring from football. As an acting platoon leader in basic training, he let a bunch of guys disobey orders by going into town to get ice cream, but then didn't stick up for them after they got caught. His platoon sergeant made sure it would be a lesson he'd remember.

Bleier also realized that sometimes he had to take on more responsibility than he wanted to, and did things he didn't like in order to get the job done; that he couldn't shirk his duty when it fell to him to take the lead; and that if he had the training and the inner character, he'd always react properly when a crisis arose.

There were some little things he's carried with him as well. The attention to detail required in the military carried with him the rest of his life, to where he still makes his bed every day, square corners and taut sheets worthy of bouncing a quarter off of.

Like a lot of Vietnam veterans, he didn't go to military reunions. With short tours of duty and a lot of casualties, he never got to know the people he served with. He knew nicknames, not real names. With the public so hostile to the war, returning vets felt used and abused, and repressed their feelings.

Ironically, that ended up giving him an important role to play. Without intending to do so, he became the guy who came back from Vietnam and won the acclaim most other vets never got — albeit as a football player. Veterans still catch him on the street and say, "You meant so much to me when you were playing because you're our guy."

Bleier continues to work with veterans' groups. During the 31 years since he left football, he's been a spokesman for the National Veteran-Owned Business Association, has been active in the National Veteran Wheelchair Games, and has done a lot of public speaking.

Without intending to do so, he became the guy who came back from Vietnam and won the acclaim most other vets never got — albeit as a football player.

At 65, he has a lot to be thankful for. He's president of Rocky Bleier Inc., and owns a construction company in Pittsburgh along with a couple of other businesses. Except for an occasional limp, he's still strong and healthy. And he never forgets his days in uniform — the black and gold of the Steelers, or the Army's greens and camouflage fatigues. Come see Rocky talk this morning about how his



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Attendees Explore Acres of Opportunity at FABTECH 2014

Attendees on hand for Tuesday's opening of FABTECH 2014 were in discovery mode. As they flooded into the expansive exhibit halls, they hoped to learn something new whether they were industry neophytes or veterans hoping to stay on the cutting edge.

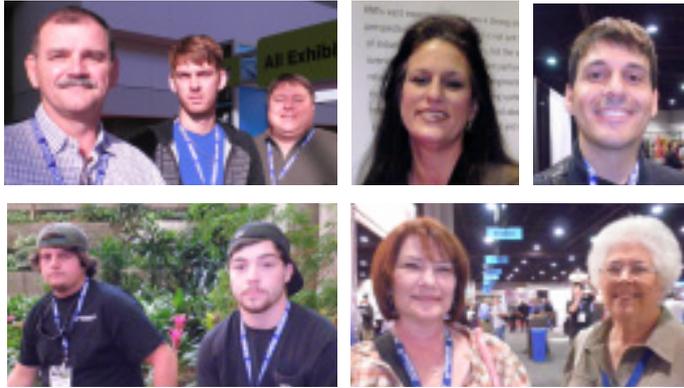
Jeff Johnson, president of J & A Manufacturing of Garland, Texas, was here with Production Engineer Robbie Couture and General Manager Jody Hess (pictured top left). The group had three goals for the show:

- They wanted to see the latest equipment,
- They wanted to update themselves on new fabrication processes, and
- They wanted to attend the show's seminars and educational programs.

Their company is an 85-employee "job shop," that primarily fabricates cabinets and frames for the telecom industry. "The machines have gotten faster and more accurate," Johnson said.

Susan Wright (top center), sales representative of SPEVCO, Inc. of Pfafftown, N.C., near Winston-Salem, was excited about networking opportunities at Fabtech. Her company manufactures and sells specialty vehicles that travel across the country to offer product tours.

For example, the Dallas Cowboys used one of their vehicles to create a traveling "Dallas Cowboy Hall of Fame." According to Wright, the vehicles are expandable up to 53 feet and can provide a "mobile museum" or "mobile marketing experience."



Each vehicle is specially customized to the needs of the client. "Snap-on Tools created a 'masters of metal' tour to showcase their products," she said. "Nascar also has used our expandable mobile vehicles to promote their corporate sponsors."

Joshua Bishop-Moser (top right) is president of a new start-up company called Solhedron, headquartered in Ann Arbor, Mich. His mission at FABTECH is "to learn what fabrication tools and techniques are available to help me."

A first time attendee, Bishop-Moser has founded a company that manufactures solar concentrators. His target market is utilities and other large-scale consumers of solar energy. His product enables them to use less photovoltaic material and thereby consume solar power more efficiently. Bishop-Moser has a doctorate in mechanical engineering from the University of Michigan. The entrepreneur graduated in May and started his company in June.

Welding students Anthony Economes and Tyler Criss of Mount Olive, Ala., (bottom left) could have taken

a holiday from classes on Veterans Day. Instead, they drove here for the day to learn whatever they could about new opportunities, new products, and new technologies.

Economes and Criss were drawn to welding because they like "building things" and "working with their hands." Both are first-year students at Wallace State Community College in Hanceville, Ala. They took the initiative to come for the day because "we just want to get our foot in the door," they said.

Opportunity also was on the minds of Brenda Amos and Eleanor Ezell (bottom right) of Wesco Gas & Welding Supply in Prichard, Ala. "We are here to see what's new in products and techniques that can help our company," Amos said. "We are long-time members of AWS, and we are on our way to the welding exhibits." ■

Vets continued from page 1

athlete, then employers have to actively pursue these skilled workers, just as a coach would, and not rely on the current passive system." And as sports teams win with the best athletes, employers can see the merits of hiring the best through growth in earnings and productivity.

How can employers find skilled U.S. veterans to interview, especially when smaller employers have human resources professionals who are spread thin as it is? "We connect them with the places where they can find veterans," Barto said. He points to

- local military forts and bases,
- national reserve offices,
- National Guard armories, and
- Veterans associations.

All of those facilities have employment outreach coordinators, he said. Just knowing they're there can be the biggest obstacle.

Barto said that only 1 in 4 Americans between the ages of 17-21 can qualify to get into the armed forces, so employers know that not only are they getting competent employees with U.S. veterans, but employees that have just received highly skilled training on state-of-the-art equipment. ■

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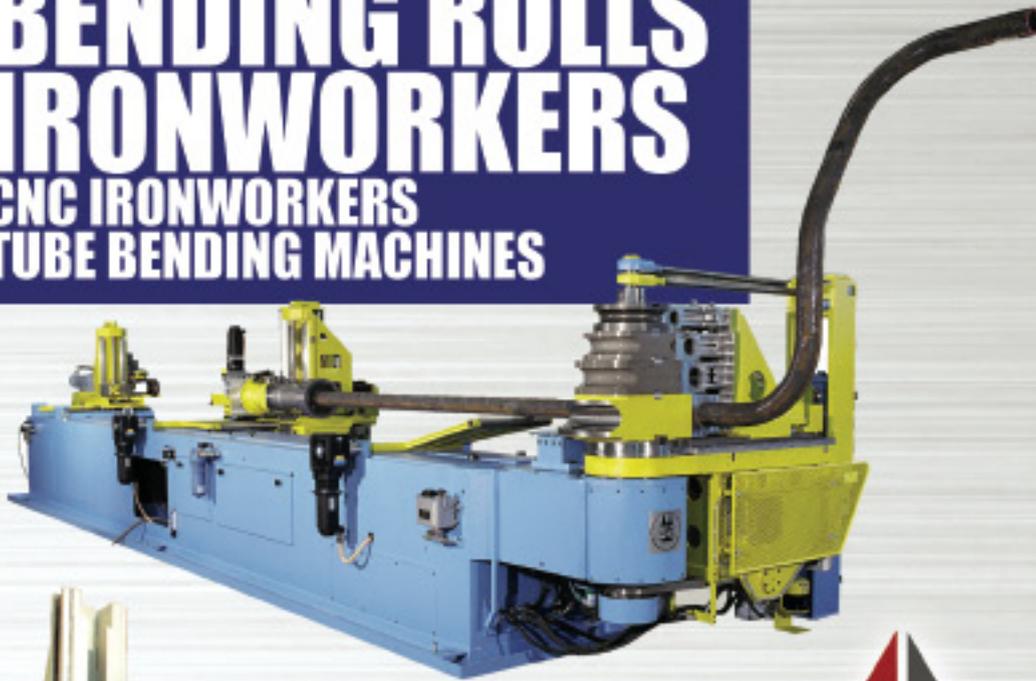
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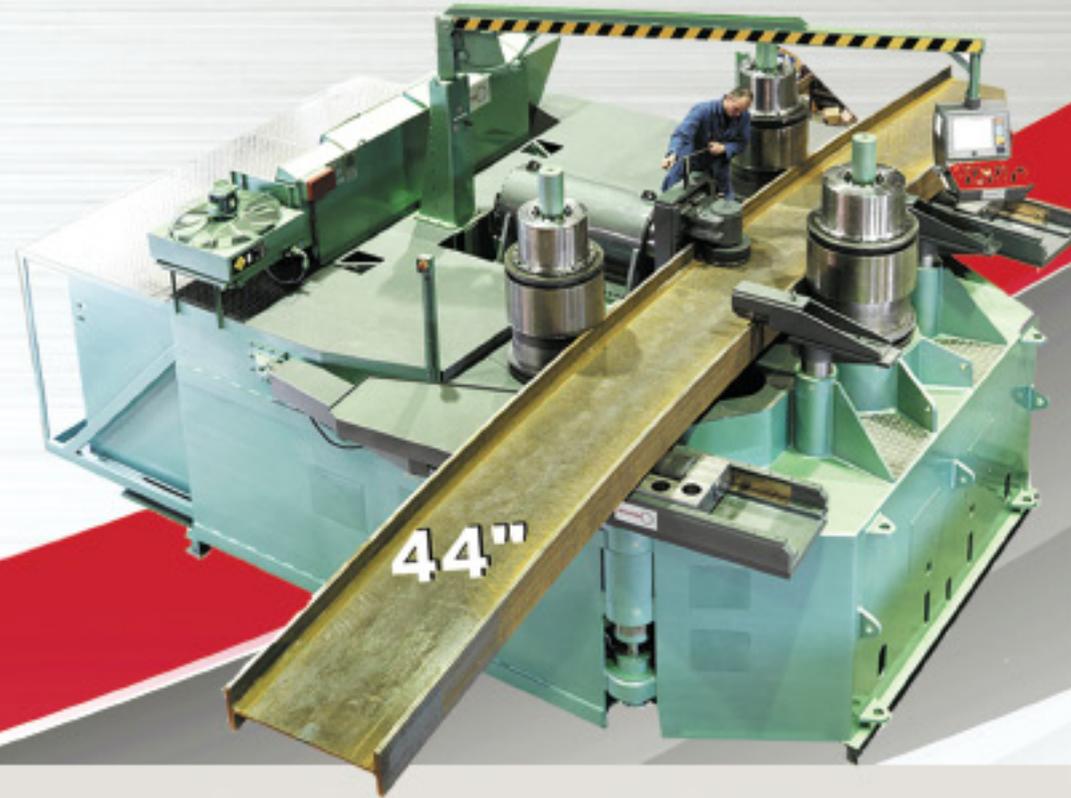
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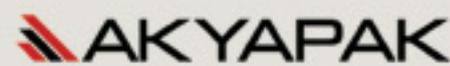


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