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Looking Back, Looking Ahead

■ By Karen Knapstein

e've got a fun little feature in this edition. Twenty years ago, the associate editor of Metal Roofing Magazine went and visited Dan Perkins Construction in Escanaba, Michigan. He shadowed Dan for the entire day and logged the roofer/rollformer's hour-by-hour activities. I think you'll find it amusing. I'd appreciate it if you'd drop me a line and let me know if you'd like to see more articles like this in future editions.

One thing I must point out: In many of the photos, the guys working on the roof are not wearing safety gear. At Shield Wall Media we always recommend that safety equipment be worn and all safety regulations be followed. We won't publish contemporary photos of people not using proper safety measures.

Looking ahead, you'll find a special flip section of Metal Builder in the next edition. Metal Builder is a new magazine we're in the process of launching; it will have information about cold-formed steel and building with structural steel. There's a bit of info (catered to rollformers) about structural steel in this edition, too.

The Construction Rollforming Show is coming up quick; it's slated to be held

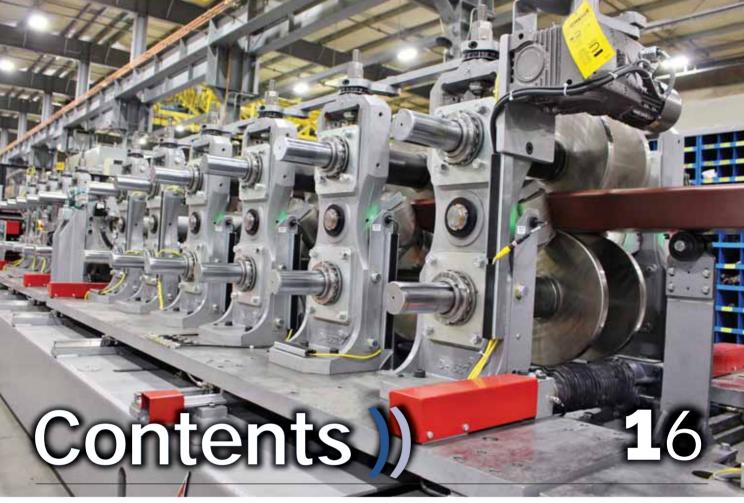
September 18-19 at DeVos Place in Grand Rapids, Michigan. That makes the next edition of this magazine the rollforming show preview edition. We'll give you a rundown of many of the show features, a map of the expo and list of exhibitors, new products you'll find, fun things to do in Grand Rapids, and more!

We're still developing the educational schedule for that event, so if there's a topic you'd really like addressed, reach out at your earliest convenience and let us know. We'll see what we can do!

Until next time— be well.

— Karen Knapstein





ASC Machine Tools TKR-X Purlin Rollformer. PHOTO COURTESY OF ASC MACHINE TOOLS

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Panel roll former. Photo courtesy of Metal Rollforming Systems.

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> Gary Reichert. Publisher, Shield Wall Media

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SSUe: • Metal Builder

Next • Construction Rollforming Show: What to expect





ach week, Majestic Steel USA [majesticsteel.com], a steel service center that distributes prime, flat-rolled galvanized steel sheets and coils to industries across the United States, compiles the Core Report. The Report is "an in-depth look at key indicators and trends driving the steel market. Market volatility demands your attention about what's driving prices, when and why." Data sources are listed in each section.

Majestic Steel has granted Rollforming Magazine permission to publish information excerpted from the Report for its readers. The information included here is from the Core Report for the week ending April 26, 2024.

DOMESTIC STEEL PRODUCTION

According to the American Iron & Steel Institute, Weekly Domestic Steel Production report dated April 23, 2024, domestic raw steel production decreased for the second consecutive week as mill maintenance outages got underway.

U.S. mills produced an estimated 1,716k tons at a 77.3% utilization rate; this is down from 1,726k tons and a 77.7% rate previously.

This is the lowest weekly tonnage output since mid-March.

Production increased in three of the five regions but was offset by a large drop in the Southern region. Production

from the Southern region slipped from 734K tons to 724k tons.

Year-to-date production of domestic steel is now up 3.3% compared to the same timeframe from last year.

GLOBAL STEEL PRODUCTION

According to the WorldSteel, Global Steel Production report for March 2024, global steel production continued to trend higher in March, and is now up for the third consecutive month.

Global steel production came in at a 5.200 million mt/day rate in March, up 0.9% from February but was 4.3% below the 5.432 million mt/day rate in March 2023.

The boost in production in March came from China, which saw daily production increase 1.7% from February to 2.847 million mt/day.

Production on a year-over-year basis declined however, sliding 7.8% from March 2023.

Production from the rest of the world was flat, holding at a 2.352 million mt/day rate in March.

North American production came in at a 305k mt/day rate in March, up 0.6% from February but down 1.4% from March 2023.

This was the third consecutive month with a year-over-year decline.

SPOT IRON ORE

The Platts, Spot Iron Ore report ending April 26, 2024, indicates an

increase for the third consecutive week. Spot iron ore pricing ended the week at \$111/mt, up from \$110.35/mt the week before. This is the highest price for iron ore since early March.

The report also says, "The iron ore market is bracing for an uncertain second quarter, with demand relying heavily on the property sector which has struggled of late."

CARBON STEEL IMPORTS

According to the U.S. Census Bureau, Carbon Steel Imports report for March 2024: Preliminary March carbon steel imports continued to climb, on a per day basis, and are now at their highest level since June 2023. Total carbon steel imports totaled 1.975 million tons in March, which is up 6.9% from February and up 1.1% from 1.954 million tons in March 2023.

Carbon flat rolled imports increased as well, climbing to 663,778 tons (21.4k tons/day) in March. This is up 14.2% from February and up 46.5% from March 2023.

Within flat rolled, all three products increased from February, with hot rolled up 34%, cold rolled up 13.2%, and coated up 19.4%.

The full library of Core Reports from Majestic Steel USA can be accessed at https://www.majesticsteel.com/majestic-insights/core-report/. RF

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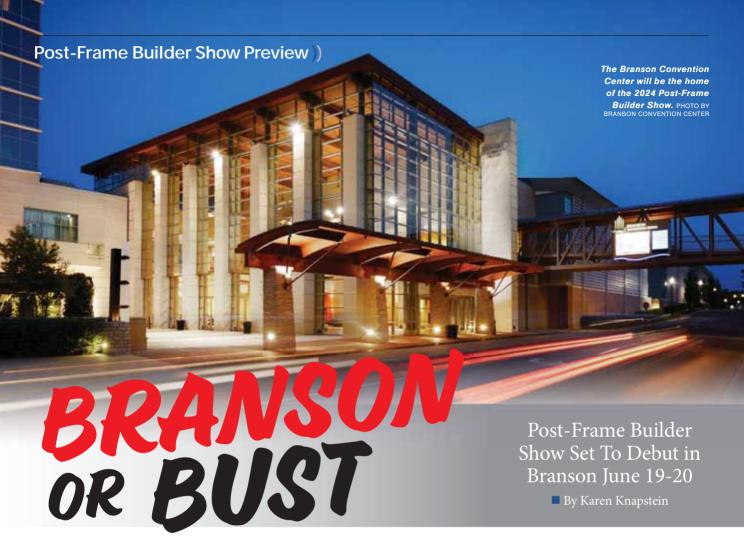
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f your company offers or builds post-frame structures, or you are considering expanding into post-frame buildings, you need to plan to attend the Post-Frame Builder Show in Branson, Missouri, June 19-20.

Produced by Shield Wall Media, the Post-Frame Builder Show offers educational sessions, a robust expo hall filled with post-frame material and service providers, and opportunities to meet one-on-one with construction industry insiders. This family-friendly event is the company's third construction-focused trade show as it joins the Construction Rollforming Show and the Garage, Shed & Carport Builder Show.

The Post-Frame Builder Show, like the other Shield Wall Media shows, is strictly a business-to-business event. Exhibitors can expect attendees to be decision makers for their companies and attendees can

expect that exhibitors are dedicated to spending the time needed to help them make their buying decisions. While all industry professionals are welcome, Shield Wall events focus on connecting those that ultimately make business happen on the show floor.

"Many shows try to be everything for everyone and see the number of bodies on the expo floor as success," said Shield Wall Media Publisher and CEO Gary





ABOVE AND BEYOND STEEL COIL





Post-Frame Builder Show Preview))

Reichert. "We know our audience and we know what we want to deliver. Our goal is a qualified audience so we can connect exhibitors and the decision-makers who want to do business with them."

WHAT YOU'LL FIND

Shield Wall Media's trade shows span two days, which is shorter than a typical trade show. "We keep it simple and business-oriented," Reichert said. "If you are looking for a supplier, it doesn't take three days. Our exhibit hours are Wednesday and Thursday so you can get in, do business, and still spend your weekend with your family."

Post-Frame Builder Show attendees can expect to find equipment manufacturers, component suppliers, and technology innovators. Some of them — such as Boss Hammer Co. — will be holding demonstrations in their booths. The scope of exhibitors is limited to only those relevant to the post-frame building industry. Don't expect to find cutlery retailers, timeshare peddlers, or booths selling floor polishers. But while you're there, be sure to stop by the Frame Building News booth to sign up for or renew all your free subscriptions to Shield Wall Media's magazines.

FAMILIES WELCOME

Shield Wall Media is pleased to be a family-focused company. Like all our shows, the Post Frame Builder Show welcomes families and has dedicated areas for attendees with children to take time to rest, regroup and maybe build a block tower or have a snack.

EDUCATIONAL SESSIONS

The Post-Frame Builder Show educational programming emphasizes topics you, as a decision-maker, want to see. Programming focuses on how you can make your business more successful by providing you with the assets you can use to do that. Those assets include connecting attendees with product and service providers, offering insights on best business practices and building efficiencies,



how to reduce costs and increase profit margins. Specific topics include, but are not limited to:

Condensation is a concern for all metal buildings in which the environment is not controlled. To explain why and what can be done about it, Dripstop's Orion Ewell will lead a session on condensation control. In the business building track, Joel M. Oney, owner of J Money, has spent 25 years in the banking sector. He will lead a session on financing and payment options. Industry veteran Randy Chaffee, Source One Marketing, will be sharing some of the knowledge gained throughout his successful, decadeslong career in relationship building and sales. (He will also be doing live podcasts throughout the show). Blunier Builders' Eric Miner will share key insights about developing leadership that works in the post-frame industry. Shield Wall Media will teach attendees about free editorial opportunities and earned media in its presentation "How To Get Free Press Coverage." Also on the docket are foundation solutions for different soil compositions and diversifying a product line. (Please note: Topics and presenters are subject to change.)

NEAREST HOTEL

We are happy to partner with Hilton as the host hotel for our show. Hilton Branson Convention Center has sold out and we have opened rooms at the Hilton Promenade at Branson Landing. Visit https://bit.ly/HotelPFBS24 to reserve a room. If reserving by phone (417-336-5400), mention the Post-Frame Builder Show and **Code 94F** to get the special show rate.

ADMISSION

General admission is \$50. If you have relationships with exhibitors, contact them — they have free guest passes and will gladly provide you with free admission. These passes are all-access (including educational programming) and are good for all attendees: manufacturers, contractors, support staff, or anyone else.

Shield Wall Media keeps its shows simple and business-oriented. If you are looking for a supplier, it doesn't take three days. Exhibit hall hours are Wednesday and Thursday so you can get in, do business, and still spend the weekend with your family whether that means heading home to them or bringing them along to this popular family vacation destination.

If you're looking for new products, business opportunities, or different sources for products you already use, you can't afford to miss the Post-Frame Builder Show June 19-20 at the Branson Convention Center in Branson, Missouri. If you have any questions about any of our shows or would like to exhibit, contact Shield Wall Media Director of Events Missy Beyer at 920-216-3007 or missy@shieldwallmedia. com. RF



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Small Companies Partner for Big Success

Little Harveys Has Found Its Niche

■ By Linda Schmid

In 1994, the Schlabaugh brothers, Gabriel, Michael, Shannon, and Jesse banded together to build sheds, and Little Harveys came into being. The sheds they built were sided with treated wood, a common building material and a beautiful aesthetic, but people were beginning to look for more maintenance-free options. The company decided to move to wood-siding look-alikes that were more durable and required less maintenance; they developed and made their own wood-printed metal panels for their sheds.

PRODUCT OFFERINGS

They developed four colors to begin with, and their panels were well-received by customers. Eventually, though, they found that they had extras sitting on the shelves, and they decided to begin selling some of it to other builders. It was challenging at the beginning; they had no idea what the demand would be and there was quite a lead time as they are dealing directly with the mill.

It turned out that Little Harveys' printed steel was very well-received by contractors and the coil-selling business

became very successful.

Since then, they have developed more panel options. Along with the wood prints, a customer can choose from a variety of stacked stone colors, which are often used for accents, wainscots, and patios. A variegated solid color line is also available.

Customers can also choose their print pattern in traditional roll print or digital. Each has its own benefits. The roll print, in which the grains are ingrained with a print drum, has better chalk and fade resistance. Digital printing creates a



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Stackstone Rotate **Shadow**



Stackstone Rotate Smoke



Business Profile))

better aesthetic with less repetition in the pattern.

THE COMPETITIVE DIFFERENCE

The company found that its niche was slitting the coil and providing exactly what the customer needs, job by job. Its customers are primarily contractors who do roofing and siding in standing seam, board and batten, and perhaps some standard ag panel, too. Companies across the U.S.A. work with Little Harveys, and they are quoting jobs in Alaska and Canada, so they are expanding.

Jesse Schlabach, Sales, said, "There are a lot of big guys out there selling steel. Little Harveys is a small guy that caters to small guys out there with a portable roll-forming machine that they run on the jobsite. We slit and recoil exactly what they need for the job, so they don't have to stock it. If they need 6,000 feet for the job, we will slit it and get it to them, typically in one week."

COMPANY CULTURE

Little Harveys is a cluster of companies: Luxe Guard Flooring, shed building, local roll forming, and the coil division. Six full-time guys work in the coil business; it's small and they like it that way. They



Thanks to the Kynar 500 coating, this metal-skinned run-in looks like cherry wood. PHOTO COURTESY OF LITTLE HARVEYS.

have no impersonal phone system; they answer the phone themselves. They talk to their customers, and if they need 4,000 feet of coil Little Harveys' team will get it to them, regardless of whether they are working with a regular customer or a new one. They are happy to be the service that a contractor turns to in a pinch.

3 KEYS TO SUCCESS

Schlabach said these three items will get any company headed in the right direction:

- 1. Figure out what makes you stand out from the competition and maintain it.
 - 2. Provide exceptional service. Always.
- 3. Treat everyone as you would like to be treated. Your customer ordered

something, then decided they didn't like it? It doesn't matter whose fault it is; get them what will make them happy.

LOOKING BACK

Retrospection provides many business lessons. One that Schlabach said he learned is that if you provide superior service and/or provide added value to your products, it doesn't matter if another company copies your product. Get over the fear, introduce your product, and do what it takes to keep your customers satisfied.

GAZING AHEAD

"The current metal industry is doing well," Schlabach said. "The trend is to move to more durable and sustainable products, so metal roofing is doing great. And in some states homeowners even get insurance breaks for having metal roofing."

With the market doing so well, Schlabach sees good things ahead for Little Harveys and its customers. In fact, they are going to introduce a couple new products later this year. One is a new window system that will cut down on potential leakage. The other is a PVC panel printed to match the exterior siding panels. The future is looking great! RF



In addition to a standing-seam metal roof, this building features metal board and batten siding that looks like wood and steel wainscot that looks like stacked stone. PHOTO COURTESY OF LITTLE HARVEYS.

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Forming Structural Steel

Equipment, Automation Keys To Forming Quality Structural Components

■ By Karen Knapstein

oll-formed structural steel components are designed to provide structural support and stability in building construction. Also known as cold-formed steel (CFS) or light gauge steel (LGS), the use of steel for structural framing is increasing, creating opportunities for metal-forming shops.

GROWING POPULARITY

CFS framing offers excellent resistance to fire, mold, termites, and other environmental hazards, enhancing the resilience and durability of the constructed buildings.

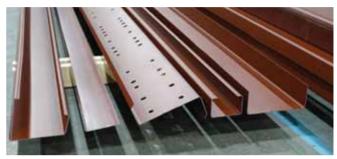
Also among the reasons why it's becoming more widely used: Builders are discovering standardized components make fabrication easier and quicker. CFS framing systems can be prefabricated off-site or assembled on-site, resulting in faster construction times compared to traditional methods. And the lightweight nature of CFS makes for easier handling and installation. It can also be easily customized to accommodate many architectural styles, building configurations, and design requirements.

To reap the benefits of supplying structural components to the construction industry, manufacturers must produce components to tight tolerances and precise specs, with consistent dimensions and quality. The roll forming machines

that are used for forming the channels, angles, purlins, and other structural components must be capable of producing consistent and precise shapes and dimensions.

Equipment manufacturers are well versed in what metal forming shops need to make these components.

Howick Ltd, a New Zealand-based company with a presence in the United States that manufactures steel framing machines for construction applications, advises that component makers first learn about what machines can and cannot do. "When designing structural components for a structure you need to understand first what the roll forming machine can offer in automation of digital fabrication regarding profile size or sizes, and gauges of steel it can produce," advises Thomas Reed, Regional Manager at Howick. "This is very important if you can be on the front end of a design effort to work within those parameters. This is different from simply designing to typical Stud and Track that can be purchased in a variety of profiles and gauges in the



In order to produce a wide range of purlin shapes, component manufacturers need a versatile purlin roll forming line.

retail market. The automated roll forming machines such as Howick offer the ability to allow the machine to produce all the components to panelize for walls, open web floor trusses, and roof trusses inline or in the strong axis."

CFS framing systems are engineered to meet or exceed building code requirements for structural integrity, fire resistance, and other considerations. Reed explains, "It is important to have design and engineering services that can do dynamic engineering for a structure. The objective is to optimize the structural design to optimize weight of steel in a structure, and still meeting all the necessary structural design requirements."

CFS has a high strength-toweight ratio, making it suitable for constructing lightweight yet durable structures. If formed properly from the right materials, framing members can withstand significant loads and are resistant to buckling and deformation.

Purlins are used in structures that

have a variety of framing systems. "Purlins are used on low-rise and high-rise structures to span long distances, because they are incredibly strong and durable and are able to support heavy loads," explains ASC Machine Tools' Thomas Schwarzer. "The most common purlin shapes are C and Z profiles produced in different sizes and gauges. Purlins are typically made out of galvanized or red oxide painted steel and offer a wide range of benefits over other structural systems." A galvanized finish is usually more expensive and offers the best protection from rust. "The red oxide finish is cheaper and offers some protection but when exposed to weather the purlin could eventually start to rust." The advantage of red oxide is that it can be painted after

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Product Feature))

the install to add a custom touch to the steel building.

In order to produce a wide range of purlin shapes, component manufacturers need a versatile purlin roll forming line. And to make the most of employee time and maximize production/ output, it's important that the equipment has features that support efficient changeover.

Schwarzer gives an example of a versatile roll forming line: "The TKR-X Purlin Rollforming Line is unmatched when it comes to versatility and efficiency in purlin production. It was designed to meet the diverse needs of manufacturers and produces a comprehensive range of purlin shapes including C and Z purlins, channels, eave struts, and angles, with web widths ranging from 3" to a maximum of 16" or 24".

The heart of this particular line lies in its punching unit, which is engineered for optimal performance and flexibility. "Combining C-Frames and 4-Post die sets, our punching unit guarantees the highest levels of precision, enabling seamless production and consistent quality across all profiles," he says.

ASC Machine Tools has two options for profile changeovers: fully automated or manual. The fully automated changeover system can complete transitions between profiles in less than 2 minutes, ensuring minimal downtime and maximum productivity. The manual changeover option provides flexibility tailored to the owner's needs, with transition times ranging from 5 to 30 minutes depending on profile shapes and material thickness.

Automation can be an important factor in ensuring consistency in dimensions and quality. Even if production is automated, operators must do their part to assure components turn out as they should. Proper maintenance and alignment of tooling are important for achieving accurate and consistent profiles. Rollformers should regularly inspect and maintain tooling to prevent wear and ensure the machine's best performance. Adjusting the roller pressure, gap, line speed, and material feed rate are also important in maintaining the desired shape and dimensions while minimizing material defects.

CONCLUSION

As the construction industry continues to prioritize efficiency, performance, and sustainability, the use of CFS is expected to further grow in the coming years. By implementing best practices and making well-informed choices about equipment, rollformers can optimize their processes, maintain necessary product quality, and maximize profitability when producing structural components. RF







Metal Under Stress

What happens to steel when it is roll formed?

■ By Courtney Glover



hen coil steel undergoes roll forming, changes occur within the steel's characteristics. These changes may be intentional, or problematic, needing to be resolved. Examples include, but are not limited to, material deformation, strain hardening, bowing, camber, and twisting.

Roll forming leads to changes in the shape and dimensions of steel called deformation. The material is stretched and compressed as it pushes through the rollers, altering its overall geometry. Roll forming induces two major types of deformation: transverse bending and lateral deformation. The process also may result in some unwanted longitudinal deformation. Roll forming bends the steel strip multiple times, using sets of rollers. This process will cause plastic

deformation within the product. Plastic deformation refers to a change that is not reversible. Roll forming leads to changes in the shape and dimensions of steel called deformation. The material is stretched and compressed as it pushes through the rollers, altering its overall geometry.

Longitudinal and lateral deformations are caused by the roll forming process influencing the orientation of grains within the steel. Grain elongation and alignment may occur along the direction of rolling, affecting the mechanical properties of the material. This can lead to unwanted anisotropic properties, increasing the risk of advanced damage in materials.

Repeated bending and shaping during roll forming results in strain hardening in the steel. What this means is the material becomes harder and stronger due to the deformation that it undergoes. The problematic effect is that this can also result in reduced ductility, causing the steel to become more prone to cracking if it is bent too far.

Residual stress may be introduced in the steel due to uneven deformation and cooling. Though, as Jamie Wolenberg, Senior Manager at the Bradbury Company, points out, this is unusual and unlikely. He states that this would only occur in very aggressive, high-speed applications. This stress may impact the structural integrity and stability of the components. This can be avoided by utilizing proper control of the roll forming process parameters, such as roller pressure and cooling rates.

Another change that occurs during the roll-forming process is the surface finish of the steel. The steel may experience variations in surface roughness or texture due to the roller design and/or surface conditions of the rollers. To help combat this, additional surface treatments such as coating or painting may be used after roll forming. Wolenberg suggests the use of lubrication as another very common way to avoid these issues, particularly on non-aesthetic parts. This will improve the appearance of the steel and will help corrosion resistance.

Dimensional accuracy is found with precise control over the dimensions and tolerances of the formed components. The final product can be negatively impacted by factors such as material properties, roller wear, and process variations. Quality control measures

are imperative to ensure that formed components meet the specified dimensional requirements.

BENDING STEEL

When bending steel, there may be severe undesirable consequences to bending too quickly. Rapid bending can cause stresses in the steel. This happens mostly at sharp corners or areas with high curvature. If the steel is bent too quickly, the steel may not have proper time to deform, causing cracks. These cracks can multiply throughout the material, compromising its structural integrity.

Additionally, when bending steel too aggressively, it may not have enough time to conform to the chosen shape. When this occurs, the material may partially or fully return to its original shape after the bending force is removed. This is known as springback, which can lead to dimensional



inaccuracies and inconsistencies in the formed components. Distortion may also occur, especially if the materials are thin or uneven. Deformation of the coil steel can cause unexpected shapes and variations in dimensions. The design of forming dies and tooling can influence springback in coil steel.

BRADBURY GROUP





BRADBURY EQUIPMENT DRIVES GROWTH.

Closer Look))



A machine needs enough stands of dies to minimize the risk of springback.

Optimizing die profiles and surface finishes can help control the deformation and reduce springback. Choosing coil steel with correct mechanical properties and characteristics can also help mitigate springback effects. Materials with higher ductility and lower yield strength are generally less prone to springback.

Rapid deformation may also cause material hardening, surface damage, and/ or equipment wear. Increasing the rate of strain hardening in the steel makes it harder and more brittle. Cole Wolford of 3GM Steel explains that this will cause the material to be more likely to crack. This surface damage includes scratches, abrasions, or surface defects. These defects will cause the need for additional finishing or refinishing processes.

Nathan Libbey of Best Buy Metals comments that there are two types of items fabricated from coil steel: panels and trim. If you are looking to roll form either option, bending the material too much or too quickly can fracture paint, or further stress the metal. Lastly, equipment wear puts stress on the bending equipment, including rollers, dies, and press brakes. This can reduce

equipment lifespan and increase the need for necessary maintenance.

Wolford also explains that a good way to minimize the risk of cracking steel coatings in roll forming is to use high quality machinery with multiple stands of dies. By doing this, a manufacturer can change the shape of steel in small increments at each stand as the metal goes down the line. Libbey adds that some cheaper systems sacrifice the number of stations to save money. In the end, these systems are too harsh on the product, roughly bending instead of slowly forming. He continues to suggest using the right gauge and softness of metal. A product with tight bends might require a softer metal, especially in heavier gauges.

Libbey also suggests considering the brakes. For hems or other tight bends, consider a bending beam with a teardrop hem option that allows for a radius instead of a hard brake. Always consider speed when forming harder metal.

To avoid issues caused by distorting steel too quickly, it is essential to control the bending process parameters. These parameters include bending speed, bending force, and rolling die material. Appropriate selection of bending equipment and tooling, along with proper planning and execution of the bending operation, can help prevent damage to coil steel and ensure high-quality formed components.

COIL STEEL BENT TOO FAR

Bending coil steel too far can lead to more potential issues. These issues include cracking, springback, distortion, material fatigue, and surface damage.

Wolford explains that if the coatings of steel are compromised while roll forming or bending the steel on a brake, the finished product can be at risk to show tension, bend staining in the future, or even create adhesion issues for the steel coatings. He continues to say, if the trims or components are bent too far, some bends can be fixed. Libbey says, in some cases slitting or shearing off the affected section and re-bending or reusing for another project is an option. However, at times, it will result in that component being scrapped and recycled.

Repeated excessive bending can induce fatigue in the steel, leading to microcracks and eventual failure under cyclical loading conditions. This is known as material fatigue and is particularly critical when formed components are subjected to dynamic or cyclic loading. Libbey says, while the Galvalume under the paint does allow for some corrosive protection, over bending steel can degrade the integrity of the substrate, paint, and overall roof or wall system.

To avoid these issues caused by bending steel too far, it is essential to be aware of the bending process parameters, including bending radius, bending angle, and material properties. Adhering to recommended bending limits and guidelines, along with proper selection of bending equipment, can help prevent damage to coil steel and ensure the production of high-quality formed components. Conducting thorough testing and bending processes can help identify potential issues and ensure the reliability and durability of formed components.

DEFECTS DURING COIL STRAIGHTENING

During coil straightening, the rollers gradually remove the stresses horizontally and vertically from the strip. There are three main types of defects in steel while straightening. These defects are bowing, cambering, and twisting. Bowing is due to the stress in the steel from when it was rolled in coil, cambering is when the strip of steel goes left or right when uncoiled, and twisting is when the coil rotates around the longitudinal axis like a spiral noodle. A straightening fixture goes after the roll former, trying to fix issues such as these.

The common mistakes leading to these errors are excessive pressure on the inboard or outboard side of tooling and asymmetric profiles. This may lead to the steel twisting, cambering, or bowing. To avoid asymmetric profiles, check the entry table to make sure the material is perpendicular to the rolls and ensure the stand is in good working order. While avoiding excessive pressure, gauge the roll form tooling without the material and check the rolls using a mirror to view between each pass. This will ensure that the rolls are matched properly. Then start the material through the first pass and re-gage the rolls. Set the roll gaps based

on the actual material thickness you are running.

It is clear that roll forming significantly alters the coil's mechanical properties, dimensional accuracy, and surface finish. To achieve the desired outcomes and quality, it is essential to have proper understanding and control of the roll-forming process. RF

Courtney Glover is a freelance writer and photographer based in Milwaukee Wisconsin. When not contributing her talents to various publications, Courtney writes YA fiction under the pen name Courtney Christine.

References:

Cole Wolford, Sales Manager 3GM Steel
Jamie Wolenberg, Senior Manager at the Bradbury Company
Nathan Libbey, Director of IT & Corporate Development at Best Buy Metals
Roll form tooling possible twist causes and remedies. Roll. (2010, August 6). https://www.roll-kraft.com/technical-resources/roll-form-tooling-possible-twist-causes-and-remedies

Wen, B. (2007, April 10). Roll forming high-strength materials. The Fabricators. https://www.thefabricator.com/thefabricator/article/tubepipeproduction/roll-forming-high-strength-materials#Material%20Deformation%20in%20Bending Wuxi LOTOS Roll Forming. (2022, October 22). ▷ common roll forming problem-roll forming guide <. Lotos: Roll Forming Machine. https://lotosforming.com/common-roll-forming-problem/

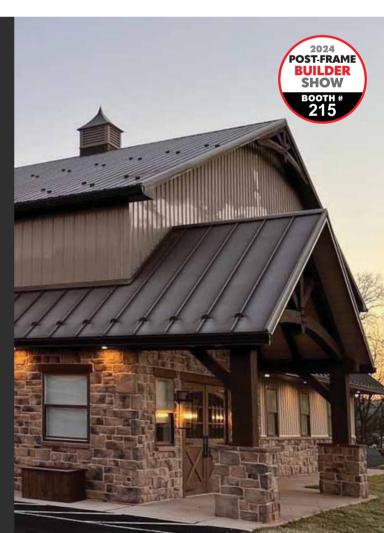


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Power of Positivity

How Company Culture Can Help Build Success

■ By Dolly Penland

o many companies say they have great culture, but they oftentimes confuse their pay or company perks for culture. While these things can foster a positive work cul-

ture, the real thing is much different. Great culture is hard to create if it's not intentionally crafted, and even more difficult to maintain as an organization grows. The key is to define it, and then recognize and reward people for embodying it.

When Bloomfield, Iowa-based Wildcat, which sells metal roofing fasteners, launched three years ago, they were in a unique position of being able to create the business and its culture from the ground up.

"When we started in 2021, it was just Brian Fox, Justin Yoder, and me," said Lane Morrison, Wildcat's Chief Financial Officer. "It was just us three people, taking orders, packing, shipping orders, doing all of that, for the first year and half. As sales started to pick up, we knew we needed more folks to get products out the door quickly."

As the company experienced that rapid growth, they decide to intentionally curate a culture so that the newly hired employees would have a great work experience.

"As a startup, we didn't know if it would take off and be a huge company or if we'd be a medium size company, or what was going to happen," said Morrison. "Whatever the company size ended up becoming, we tried to create a better culture and a vision and mission to take care of our customers."



Bright, standout colors allow for efficiencies in the warehouse. The bright colors also "look like fun."

Their mission is "to provide the highest quality and best performing building components to our customers with their needs and requests centric." In addition, the Wildcat company vision is to "improve the lives of every contact with a caring, helpful, energetic team of Grade A team players."

Their corporate values are to, "Outperform all expectations; Be willing to change; Listen to every idea and advice given, and; Take responsibility for mistakes."

"We have seven staff now," said

Morrison. "I think we're looking at adding five or six more this year. Three sales people and more production people."

Having done each of the different roles themselves, the leadership team strives to

not just say these values are expectation, they strive to actually live those principles, leading by example. The three believe they are setting the tone for the entire company, so they aspire to embody those values and expect the same from their employees.

Wildcat uses bright vivid colors in their logos and packaging to stand out from the competition. But those fun colors also have a practical use. Those standout colors allow for efficiencies in their warehouse.

"That vibe is what we're doing

too; it looks like fun," said Brian Fox, CEO "It's meant to be attractive and simple, that's what we're after with the color and labels. Most of colors that you see up in the warehouse, the colors mean something. Orange is a stainless-steel cap screw. Blue is steel claw. Green is wood claw. It's designed to keep it simple so they don't have to spend a lot of time looking for specific labels and can easily see what kind of color what they are getting, making it easy to pull an order and keep confusion out of the picture."

In addition to clearly writing out the values that are important at the company, they have them posted so that everyone

MISSION

To provide the highest quality and best performing building components to our customers with their needs and requests centric.

VISION

Improve the lives of every contact with a caring, helpful, energetic team of Grade A team players.

VALUES

- Outperform all expectations
 - Be willing to change
- Listen to every idea and advice given
- Take responsibility for mistakes

Business Building)

can easily see them. They also try to show their team how much they appreciate their efforts.

"As a small team, we had to all do each role and wear many hats, being a closeknit team and having a good team vibe was something we have taken seriously," said Morrison. "We try to do different team events, a team lunch every two weeks, team dinner every so often. We still go out the warehouse and pack orders or whatever needs to be done."

While Wildcat is a small company, they do promote work-life balance to prevent burnout. They encourage employees to work regular business hours, take breaks, and provide time off during the holidays.

They try to be open in communicating what's going on at the company, and encourage employees to share ideas and feedback.

"We're aren't trying to be the one-and-

only; we are trying to serve people the best way we know how and have fun doing it," said Fox. "People working here are bettering their lives by being part of the team. We are giving a good quality of life and we expect that quality is part of the brand; we are not selling cheap. It's more expensive but it's good service, good quality, and good people who care about you."

Trust is the foundation of a strong company culture. Be honest, reliable, and trustworthy in all interactions. Trust between team members is equally important, not just the trust shared between a team and their managers.

Hannah Wasson, who works packaging and production in the warehouse, is one of the company's newest hires. She says the company's values resonate with her personal values.

"They gave me a tour, so I came out

and they interviewed me and showed me everything," said Wasson. "They were completely honest with everything that was going on. That it was a new company and they were still figuring things out and, I appreciate their honesty about it. They have a good mission and high values. They want to put customers first and do what's best for the customer, and that's a plus." **RF**

Dolly Penland, President & CEO of Business Results, a PI® Premiere Certified Partner and Master Training Center, Talent Optimization consultancy, and a CATIL® Elite Certified Partner, works with organizations helping them to hire and manage their talent to their highest potential. She specializes in multiple areas including helping businesses grow sales, reduce turnover and develop leaders.

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Flack Global Metals: More Than A Steel Service Center

■ By Linda Schmid

he steel marketplace was a mature industry in 2010, one that hadn't changed much in years, and then along came Jeremy Flack. With a background in banking, Flack brought a new mindset to the traditional steel service center model.

GETTING ESTABLISHED

In the beginning, the company was called Flack Steel, and it was focused on one product: hot rolled steel. They procured steel for a few customers; a great start, but of course, growth requires diversification. Further, they had only a handful of partnerships with steel producers across North America, missing out on other opportunities across America and across the globe.

Senior Vice President of Business Development Brian Williams was one of the first employees. He said the company grew incrementally, starting in two tiny, temporary offices in Cleveland, Ohio, then adding a third, getting larger week by week, month by month. In the fall of 2010, they moved to an historic office building, customized for their new company in downtown Cleveland.

The company continued to grow slowly, methodically through sales. Then in 2013 Jeremy Flack met Ben Bucci, and they found that their mindsets clicked, and their companies complemented each other. GlobeNet, Bucci's company based in Scottsdale, Arizona, was an asset-light service center providing the same type of service as Flack to different customers with a wider product range. The companies merged, instantly doubling the client base, and extending the supplier partnerships across the country and beyond.

That was the first of several mergers, always growing, extending their reach

and their product line, and making the company stronger. Over the next few years, they acquired Consolidated Metal Products and merged with Kenwood Painted Metals, ultimately rebranding the company as Flack Global Metals (FGM).

Fabral Metal Wall and Roof Systems, a manufacturing company, is one of FGM's latest acquisitions and the first company in the Flack Manufacturing Investments (FMI) division, which was established in 2023.

"It's exciting," Williams said. "For fourteen years, we successfully distributed steel. Now, we are using some of that steel to create something solid."

NOT JUST ANOTHER STEEL SERVICE CENTER

Williams has been with the company from the beginning. "In 2010," he said, "when we talked about opening a steel service center, the industry was underwhelmed; there were a lot of steel service centers."

However, the team was confident that the industry would soon see that this steel service center was different. "What differentiates us from the competition," Williams said, "is that we manage the volatility of the steel market for our customers. It's where the physical meets the financial," he added.

"Our customers are good at making a product. We let them focus on that while we focus on what we are good at: managing the price risk," Williams said.

Managing price risk in the steel industry includes various financial strategies involving futures and options contracts. "These activities can smooth out much of steel's price volatility and allow people who rely on steel purchases for their business to sleep peacefully," Williams said.



Fabral Metal Wall and Roof Systems at work.

Business Building)

THE COMPANY TODAY

The company deals in steel and aluminum, though steel is the primary sales generator. They procure steel from all the North American mills, as well as producers in Europe and Asia. Headquartered in Scottsdale, Arizona, they have four offices across the USA, with a physical processing location in Houston, Texas. The company opened an international office for its fourth division, Flack Metal Trading, in Switzerland this year.

Their customers are located across North America and increasingly in Europe. They mainly service the construction industry; the steel is used for rollforming, metal roofing, decking, doors, purlins, HVAC, and more.

Three employees started the business, and now the distribution portion alone employs 80. Altogether the companies under the Flack Global Metals brand have over six hundred employees.

How, in the limited pool that is today's work force, did Flack manage to assemble such a large and successful team, over about a decade and a half? Williams attributes it to the company's culture.

CORE VALUES CREATE CULTURE

Williams said the culture is based on their core values: transparency, relentless learning, affinity for risk, resilience, persistence, and thoughtful disagreement. The majority of these values speak for themselves; most successful people would recognize their worth. However, thoughtful disagreement may seem unusual. Williams explained that when smart, ambitious people work together, there are bound to be differences of opinion. Respectful investigation of differing points of view can glean some of the best ideas.

These values were inherent to the company from the start; the founding members used them to guide the fledgling company and they use them today.

People who are considering joining the company have usually heard of the company's reputation, that they are a company that does what they say they will do. Williams added that ambitious people appreciate FGM's strong history of promoting from within.

KEYS TO BUSINESS SUCCESS

First, you need big ideas, Williams said, and you need to move forward with confidence. Just ignore the naysayers.

Adaptability and optionality also play their part in success. "If you don't adapt to changing times, then life – and customers – may just pass you by," he said.

Optionality, Williams continued, is being prepared to make use of opportunities that come your way. For example, if you are over-leveraged, then you will be unable to take advantage of a great deal.

Finally, focus on how you add value to a transaction. In this case, FGM reduces price volatility, provides inventory management solutions, and more while they distribute steel or aluminum to their customers.

From William's viewpoint, "If we are not adding value to a transaction, then we should not be involved in the transaction."

LOOKING FORWARD TO THE FUTURE

William sees continued growth through mergers and acquisition in the future via FMI, the company's investment arm. FGM is working to drive change within the industry by reinvesting in it and implementing strategies to help member companies excel in the volatile steel market landscape. He believes that organically they are just hitting their stride on the distribution side. RF

I'd absolutely recommend NTM machines to any business owner who's getting into rollforming."

— Mike Lemke Lemke Exteriors in Moorehead, Minnesota

Mike Lemke, owner of Lemke Exteriors, boasts nearly three decades of experience in the metal roofing and gutter industry. With multiple NTM machines under his belt, including a WAV™ Wall Panel Machine, an SSQ II™ MultiPro Roof and Wall Panel Machine, and three Mach II™ Gutter Machines, Mike's business has flourished. Starting from a single machine operation, he now oversees a team of 25 employees and caters to high-end custom homes and commercial condos. Ready to grow your business like Mike? Contact us to learn how you can expand your operations with NTM!









Sensors and gauges provide current indications of equipment condition, and can help to identify small problems before they become expensive repairs. Although roll forming equipment rarely has such sensors, the cost and ease of use mean that they can be incorporated relatively easily.

Keep em Running

5 maintenance strategies to keep manufacturing equipment in top condition

■ By Eric Lundin, T&H Lemont Inc.

quipment maintenance isn't always at the forefront of a manufacturing company's plans, budget, or Monday-morning huddle, but equipment maintenance is more than necessary. Of course, every dollar spent on maintenance has to be justified — maintenance is a cost, after all — but a well-planned, comprehensive maintenance program can pay for itself many times over. Keeping a close eye on the equipment's condition, and taking steps to keep it in good shape, can help every manufacturer get the best return on its equipment investment by stretching the service life of every machine in its shop.

A small company might not have a dedicated maintenance department, so for some roll forming shops, developing a comprehensive maintenance program might sound like a daunting task. However, maintaining industrial equipment doesn't have to be any more complicated than maintaining an automobile. And while this may be hard to believe, automobile maintenance actually consists of five separate but overlapping maintenance strategies.

Anyone who has ever owned an automobile can probably think of two right away: Changing the oil on a regular basis and checking the oil level between oil changes. Every automobile owner

uses at least two more, and some use three more.

THE FIVE COMMONLY USED MAINTENANCE STRATEGIES

The five maintenance strategies don't have a specific order, but they have specific definitions, as follows:

Reactive: Run to failure Corrective: Unscheduled repair Predetermined:

Manufacturer's schedule

Preventive: Modification to the
manufacturer's schedule

Condition-based:

Uses sensors and gauges
Using the automobile analogy, most

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Machine Maintenance))

people would never consider running it to failure. An automobile is simply too expensive and too necessary to neglect, so running to failure sounds extremely foolhardy. In reality, we do it all the time. Headlights are a good example. The slight inconvenience of one burned-out headlight, combined with the ease of replacement, outweighs the need to replace a headlight before it fails. The same goes for turn signal lamps, side markers, and so on.

Next is *corrective maintenance*. An automobile owner might pop the hood to check the oil and notice a frayed belt or an aging radiator hose.

Predetermined is the most familiar. Everyone knows that keeping the engine well-lubricated is a key to an automobile's longevity, so sticking to the manufacturer's maintenance schedule is critical. Of course, the same goes for

everything else that requires any sort of lubricant.

Preventive maintenance takes predetermined maintenance one step further. When a vehicle used in heavyduty service, such as towing or carrying substantial payloads often, it's probably a good idea to change the lubricants more often than the manufacturer's schedule stipulates. The same goes for driving in desert locations or semi-arid areas prone to wind-borne grit and dust. The air filter will become clogged much more quickly than when driving in other conditions, so more frequent replacements will keep the engine breathing easier.

The final strategy — condition-based — relies on the automobile's condition as picked up by sensors and displayed on gauges or meters on the dashboard. Like run to failure, the machine's condition leaves no room for doubt. The other

three, while necessary, are based in part on some guesswork. A fraying fan belt might last many more miles, and it's hard to say if the manufacturer's schedule for oil changes is ideal, or if it's cautious, and the same goes for preventive maintenance. But condition-based maintenance is very specific.

In the case of an automobile, the radiator's temperature gauge is a good example. If the radiator coolant temperature is lower than usual, it might indicate thermostat stuck open, not allowing the engine to get up to its normal operating temperature. Running too hot? The thermostat might be stuck closed, or the radiator coolant level might be too low, or the radiator passages might be clogged, or perhaps something far more expensive is the culprit, such as a leaking head gasket. In any case, the automobile owner knows for certain





Machine Maintenance))

that something is amiss and it needs attention. Now.

MACHINERY APPLICATIONS

Regarding industrial machinery, these strategies are essentially the same.

The basis for maintenance is the predetermined strategy based on the manufacturer's schedule. These activities can be elaborate, intrusive actions, like shutting down the equipment annually and tearing into the machine to inspect the motors, gearboxes, and other drive-system components. Also, the manufacturer's schedule includes frequent, less intrusive tasks. These usually are daily, weekly, and monthly, and involve visual inspections to look for loose hardware, loose chains, worn belts, aging hydraulic hoses, and so on. These inspections can lead to repairs, which would be corrective maintenance.

A preventive strategy could apply to any machine, component, or tooling run close to its maximum intended capacity or maximum production rate, or both. The manufacturer's maintenance schedule is likely intended for average conditions, or varying conditions, so running the machinery full-tilt all the time is probably beyond the manufacturer's expectations for wear and tear, and preventive maintenance is in order.

A reactive maintenance action is likely to come up once in a while, despite sticking to the maintenance schedule. A bearing might go bad prematurely, and while it might not necessarily fail entirely, it needs replacement if it fails to do its job.

Last is condition-based maintenance, which relies on the use of sensors and gauges. These aren't as common in roll forming as they are in something like a chemical processing plant or a refinery, but putting more reliance on them could help rollformers spot a small problem before it becomes a big one.

A NEW TAKE ON CONDITION-BASED MAINTENANCE

In a technical article published in *The Tube & Pipe Journal* (and posted to www.thefabricator.com), author Paul Hogendoorn discussed condition-based maintenance. The goal of his article wasn't actually related to maintenance, but it showed how a system monitor could be a substitute for quality control. In doing so, his article demonstrated the power of condition-based maintenance.

Hogendoorn's idea is that monitoring the machine's condition for process consistency is a good proxy for quality consistency. Titled "What Do You Monitor to Ensure Quality? Forget Parts



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 Focus on the Process," the article discusses how this is done, its advantages, and its disadvantages.

The example in the article uses a strain gauge mounted to the frame of a machine or a component. The component, which could be a punching or shearing unit on a roll forming line, generates a force every time it cycles. The workpiece resists that force, and the result is a strain that can be measured directly by a strain gauge.

The Setup. A strain gauge uses a piezoelectric sensor, which generates a tiny amount of voltage when it's under strain. As the punch or blade goes through a cycle, the strain changes in a very repeatable way. The tool enters the workpiece, parts it, and exits, creating a specific strain signature.

The voltage output is weak, so this sort of system requires hardware and

software that work together to amplify and interpret the output.

The Thresholds. The output is based on several factors, including the raw material, lubrication, tooling condition, machine setup, machine condition. As long as all of these are consistent, the strain gauge's output will be consistent. The machine's output — a punched hole or a sheared end — likewise will be consistent.

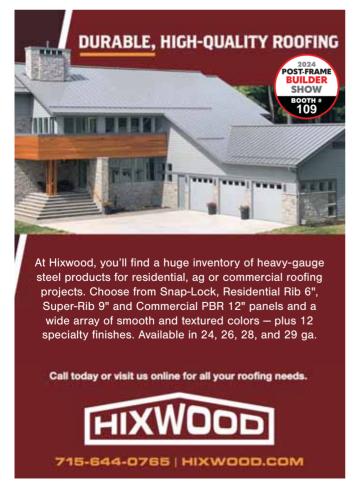
Before starting a production run, the machine is optimized with a thorough inspection, including any necessary adjustments or repairs, and new tooling. By processing several samples of known good material, the strain gauge generates several outputs, which the software averages together to create a representative signature.

An experienced engineer can then set

thresholds, or limits, for the maximum and minimum acceptable amount of strain. Any amount of strain recorded beyond the threshold triggers an audible or visual alarm, or both.

The Frequency. The beauty of this system is a twofold benefit. First, during a production run, the system runs in the background, requiring no attention from the operator. Second, it compares the reference strain signature to every cycle's strain signature to interpret the stability of the process. In other words, it provides 100 percent coverage, monitoring every cycle during every production run, shift after shift, day after day.

The Trigger. A drawback to this system is that it's not diagnostic. A trigger that sets off the alarm tells the operator that something has changed, but it doesn't identify the cause. The blade or punch





Machine Maintenance))

may be chipped, the lubricant reservoir may have run empty, a component somewhere inside the punching or cutting unit may have broken, and so on. This is the tradeoff. The system is comprehensive, catching any change to the process; but it's not diagnostic.

ADVANTAGES AND DISADVANTAGES

On one hand, this system provides a reasonable substitute for a conventional quality control system. As long as the monitoring system doesn't alarm, the operator has confidence that the process is stable and the part quality also is consistent. Also, it's simple to use in that it requires no operator training. On the other hand, a conventional quality control system is time-consuming and labor-intensive, and usually requires operator training.

Both systems require an investment to get started, so this is a toss-up.

A disadvantage to relying on process consistency is that it can't catch every sort of flaw that might occur in the production process. For example, it can miss flaws that are hidden in assemblies.

As far as the equipment maintenance side of the equation, the process monitor keeps costs under control. It reduces or eliminates the likelihood of performing machine maintenance too frequently, which increases downtime and wastes resources. It also reduces the likelihood

of carrying out machine maintenance too late, which can allow a small, inexpensive problem to become a critical and expensive problem.

TODAY'S VERSION OF PROCESS MONITORING

The system Hogendoorn discussed in his article isn't a do-it-yourself project; it requires hardware, a setup, and programming from a company that specializes in the sensor technology and the algorithms needed to compare the reference strain signature to the production strain signatures. However, small manufacturers with tight budgets have other options.

Although Hogendoorn's article, and the system it describes, is just as valid today as it was when it came out a few years back, much has changed. The internet wasn't as fully developed then as it is today. These days nearly everything and anything electronic can be connected by Wi-Fi or Bluetooth, so options abound. In other words, while Hogendoorn's system is extremely capable and versatile, these days a maintenance department might be able to develop a more basic system without relying on experts to set up and program a system.

Sensors that can connect wirelessly are available to measure some of the critical aspects of industrial machinery, such as vibration and temperature, which would help to assess the condition of transmission components such as gearboxes. Sensors are available to measure the voltage, current draw, and torque of electric motors.

Setting up such sensors takes several steps, but it's fairly straightforward. The first step is to set up a gateway that sends the data it gathers to the cloud. The second step is to connect the sensors to the gateway. After everything is up and running, the sensors operate in the background, gathering data and sending it to the cloud continuously.

And the people responsible for maintenance can rest a little easier. RF

Eric Lundin is a Sales Engineer at T&H Lemont. T&H Lemont is a custom manufacturer of machines, components, tooling, and consumables for producing tube, pipe, profile, and panel.





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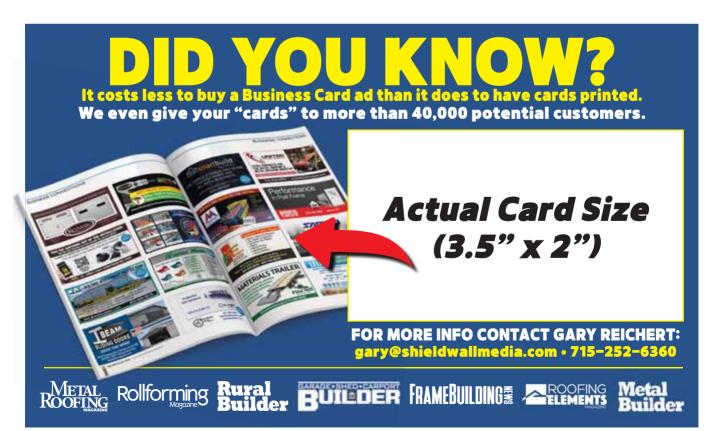




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Metal Roofing Magazine was born as a supplement to Rural Builder magazine in 1999. A few more supplements were published in 2000. In 2001 it was elevated to a stand-alone magazine, and today it is over 20 years old.

"Flashback" articles (articles that were published ages ago) are published in every edition of Metal Roofing. Rollforming is still too "new" to have flashback articles of its own ... but we came across this one and thought you'd find it of interest.

If you'd like to see more articles from "olden days," drop us a line and let us know.

— Karen Knapstein karen@shieldwallmedia.com

A day in the life of a rollformer

Editor's Note: This article was originally published in the October/November 2004 edition of Metal Roofing Magazine. These photos were taken 20 years ago. We recognize that roofers shown are not using appropriate safety equipment. Shield Wall Media encourages everyone to use recommended safety equipment.

n the world of metal roofing contractors roll forming their own panels, there is no such thing as a typi-

Various tasks will be repeated, to be certain: estimates will be given, materials purchased, jobsite problems solved. But every day will bring



its own unique challenges: coil arriving at the last minute, two crews working 30 miles apart both needing the company's one operational roll former, a wrong turn on the highway.



7 a.m.

Walking into the office of Dan Perkins Construction at 302 North Main St., Ishpeming, Mich., a visitor is greeted by a cloud of cigarette smoke. Dan, office manager Larry Clemo, and his foremen have been planning where the company's two crews will be today — a tear-off deep in the woods about 20 minutes away, and a re-roof about an hour away in Skandia.

7:30 a.m.

Dan covers a lot of ground in the early morning sunlight: snow loads (key in his snow belt region), metal roofing details (he's hoping to compile a photographic encyclopedia), oil

canning (referring to an article on the subject in the last issue of Metal Roofing, Perkins says "Oh my god, that picture was just nasty!"), the



recent TAMKO purchase of MetalWorks (Perkins has done a number of sharp jobs using MetalWorks' shingles), and photovoltaics. The last issue is a particular labor of love. A big believer in developing alternative energy sources, Dan has worked extensively with Uni-Solar developing laminate PV systems that nestle in the pans of standing seam metal roofs. He's done about five PV installations nationwide, and after the summer/fall busy seasons pass, Dan plans on resuming development of some of his latest

ROLLFORMINGMAGAZINE.COM 35

Flashback 2004))

8:30 a.m.

Breakfast just around the corner at Aunty Kathy's. Over eggs and several cups of coffee, Dan talks about what a rough year it's been for the steel industry, and how several of his suppliers have faced challenges meeting delivery dates and price points. It's tough being located in one of the northernmost outposts in the country. Ishpeming is a seven-hour drive from Chicago, an eight-hour drive from the Twin Cities, and a five-hour drive from Milwaukee. Perkins' shop isn't on the route for many semi trucks hauling coil cross country.



8:55 a.m.

A new Metalman roll former from Englert sits in the parking lot outside Perkins' office. Dan and several of his guys made the trip down to Chicago late last week to pick up the machine. Dan is in the process of registering and insuring the new machine, but in the meantime the company continues to use its Roll Former Corporation machine.

9 a.m.

Dan fills up his truck at a local gas station, and the bill comes to more than \$50. The summer's high gas prices have hit Perkins' pocketbook hard. Given the Upper Peninsula's sparse population base, crews drive long distances most days, translating into monthly gas bills in the thousands of dollars. Trucks are a necessary evil in Perkins' eyes. From his perspective as a small business owner, the Bush administration's tax relief for large vehicle purchases last year was a terrific incentive to upgrade equipment. As an environmentally conscious American, he loathes the idea of more vehicles guzzling gas at 15 miles or less per gallon hitting the road.



9:15 a.m.

About 15 minutes away from his office, Dan's cell phone rings. It's a delivery guy looking to drop off a large order of RoofTopGuard II underlayment from Drexel Metals, but the office phone went unanswered. Dan tells the driver that Larry is probably just on the other line, but that if he can't get a hold of him he will head back to the shop and help unload. Dan calls his office phone, which goes to the answering machine, so he turns around and heads back.

9:30 a.m.

Dan arrives at the shop, only to find Larry helping the delivery driver unloading the underlayment. Perkins Construction's shop has all the trappings: coil in many different colors, leftover trim, various brakes and other bending machines, metal roofing accessories like fasteners, sealants, and underlayment. The company's office and shop are about a block away from one another, and Dan would like to eventually have both in the same location, to improve earlymorning productivity.

10 a.m.

A short detour takes us past several MetalWorks jobs Dan has done in a subdivision near Negaunee. Dan's cell phone rings again, and it is arguably his most important call of the day. It's his daughter, who while baby-sitting her younger sister has discovered the hard way that the baby has graduated to a larger size diaper. Dan says he will work on getting some larger diapers.





10:15 a.m.

On the way to visit his first crew of the day, Dan stops at a log home to show some details. Log homes are tricky, since they don't settle at a predictable rate, and while Dan would do certain details differently nowadays, overall he is pleased with how the roof looks.





10:30 a.m.

Dan arrives at the White Bear Road jobsite. It's one of Dan's favorite types of jobs, a ranch-style residence with little pitch and few tricky details, save for the potential move of a plumbing stack. The crew has completed tear-off of the existing ag panel roof in about 1-1/2 hours, less than half of what Perkins had estimated, and everyone is pleased at being so far ahead of schedule.

But this presents a potential problem: the new roof will be teal, a color Perkins has never used before, and the coil needed to start on the trim has not yet arrived. It is the first order Dan has placed with Englert, and it is supposed to arrive today. Joel Vickstrom, the foreman and a part owner of the company, says he'll bend the trim tonight, but asks Dan to double-check on the order's status.



11:30 a.m.

Dan heads off to visit his second crew. He places a call to his contact at Englert, and inquires about the status of the teal coil shipment. Much to his relief, the shipment has arrived, and Larry has taken care of it at the shop.



Noon

Things are progressing well on the Skandia job, a black standing seam residential project, but with more pitch, and laborious details like a canopy over the front door and a chimney. The chimney is a standard detail and poses little problem for the guys on the roof, but the canopy is trickier. The ridge runs into the bottom of a window overlooking the canopy, meaning the standing seams will not tuck under the ridge cap.

For the longer runs on the main roof sections, crew foreman Jeremy Lambert runs panels by himself on the Roll Former and hands them up to two workers on the roof, who fasten them and seam them using manual tools. Jeremy eschews the use of a computer and shear that come with the machine — he says he can do it quicker, and make cuts and bends on the next panel that a typical shear can't.





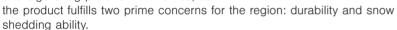
Flashback 2004))

1:30 p.m.

It's off to Escanaba, about an hour away, to pick up two repaired Bostitch roofing nailers the guys find invaluable. The city is not in Perkins' normal coverage area, so the tiny repair shop takes awhile to find.

2:30 p.m.

Lunch at Hereford & Hops in downtown Escanaba, where Dan talks about how he got into metal roofing. Originally from New England, he moved to the UP so his wife could be closer to her mother. After starting as a remodeling contractor, Perkins branched into metal roofing when he saw its potential as a residential product. At first, he installed through-fastened panels. There is no shortage of ag panel on UP homes, as



But several years ago Perkins switched to standing seam and found himself bidding higher-end homes and commercial jobs. Running standing seam panels from jobsite machines has been a learning experience, and Dan has adapted the lessons he learned from Vermont roll former Rodney Rood to fit the demanding UP climate. The standard Dan Perkins Construction recipe for roll formed panels has evolved to this: 24-gauge steel cut from 20-inch sheets into 17-inch pans, with 1-inch major ribs and two minor ribs, ideally installed over a roof deck of foam board insulation and 5/8-inch OSB or plywood. It's all in the name of controlling oil canning. "Oil canning is a huge industry issue, and it's all of our responsibility to do what we can do to control it," Dan says. "The future of our industry is at stake."



3 p.m.

Leaving Escanaba, Dan gets a call from a customer up in Copper Country, an hour or so north of his office. The customer wants to talk about a design idea for his roof, adding a cupola.



3:15 p.m.

Dan gets a call from his lawyer regarding an upcoming case. Typically, Perkins does not go to court to settle disagreements, but this case is different. A customer did not pay him for work performed, and after Dan took her to court, she countersued him for damages and defamation of character. To hear Dan describe it, the case is frivolous and ridiculous, and although settling out of court would have cost him just as much money as winning and paying legal fees, it's a case Dan feels he has to see through to the end, a matter of principle.

But there's been a snag. The trial is scheduled for Thursday, and Dan's key witness, a local man who was also not paid by the plaintiff for odd jobs performed, needs to be served a subpoena — today! Complicating the matter, Dan can not serve the subpoena, it must be done by one of his employees. Dan knows just the guy for the job — John Lehigh, who's working at the White Bear jobsite — and tells the lawyer he'll work on a solution. He must be back in Marquette by 5 p.m. to pick up the subpoena from the law office.

While talking to his lawyer, Dan takes a wrong turn, and drives about 15 minutes in the wrong direction.

4 p.m.

Dan gets a call from his wife, inquiring about his current status. They have company coming over for enchiladas at 5:30 p.m., and Dan is supposed to pick blueberries after supper. Still about an hour from Marquette, making those appointments on time looks iffy at best.

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5:05 p.m.

Arriving at his lawyer's office five minutes after it closes, Dan sprints to the back door and picks up the subpoena from an employee who stayed late.



5:25 p.m.

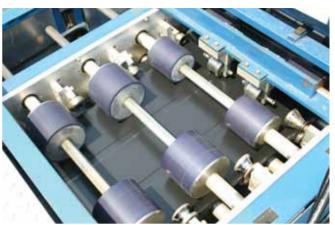
The guys at the White Bear jobsite are wrapping things up for the day, and after giving John subpoena delivery directions, Dan surveys the scene and finds things are going great. About half the roof is properly decked, and the other half shouldn't take long tomorrow morning. Joel says the crew will be ready for steel by noon Wednesday. The challenge: Jeremy's crew, while making steady progress, had not been scheduled to be done with the Roll Former by noon Wednesday. And the paperwork for the new Englert machine is not yet complete. Each potential solution has its drawbacks. Jeremy's crew could measure, cut, and drop all the remaining panels for the Skandia job Wednesday morning, but the roof has so many irregularities that it will not be a quick task, and storing the panels onsite would be difficult. The Englert machine could be rushed into action, but registration and insurance are still pending, and the crew has not yet used the new machine.

5:40 p.m.

Dan calls Englert to inquire about the status of the registration papers, and is told they are in the mail. He asks that the papers be faxed to his office tomorrow morning.

5:50 p.m.

After trading voicemails, Dan talks with Jeremy about finishing with the Roll Former by 11:30 a.m. Wednesday to bring to the White Bear crew. Jeremy says he'll see what he can do.



6 p.m

A full work day in the rear view mirror, Dan drops his companion for the day off outside his office. Enchiladas, blueberries, and diapers await, and tomorrow's challenges roll forming metal panels have not yet been answered. But if Tuesday is any indication, Dan Perkins Construction will take it all in stride. **RF**

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GSCB Show Sets New Standard in Knoxville

■ By Rollforming Magazine Staff

ecords were set for exhibitors and attendance as the industry gathered in Knoxville, Tennessee, on January 24-25 for the third annual Garage, Shed & Carport Builder Show.

Almost 70 manufacturers, suppliers, and companies dedicated to all things regarding the construction of small residential buildings were exhibiting. There were well attended educational sessions, a happy hour with a great mid-Southern meal, and a positive vibe all around.

"I would like to thank the exhibitors and attendees at this year's show for making it the best Garage Shed & Carport Builder Show to date," said Missy Beyer, Shield Wall Media's Director of Events. "We strive to make sure our shows are profitable on both sides of the aisle but also to allow for a fun and family friendly atmosphere to network within the industry. I believe we hit the mark with this year's show. Our next event is the Post-Frame Builder Show in June, hosted in



Branson, Missouri. I hope to see you all there."

The show set a new bar for attendance, beating the previous best by 30%, and as always at a Shield Wall Media show, almost all those attendees were decision-makers and budget-managers.

"This event was impressive, and it was well attended by both contractors and companies. An audience that was interested in what we had to share," said Jason Heifnar, Director Operations, Best Buy Metals. "It was also good to meet members of the event team from Shield Wall as well. Best Buy Metals and American Pole Barns by Best Buy Metals greatly appreciated the opportunities this show provided."

What makes these Shield Wall Media industry events different than most is that they are about relationship-building, and that includes being family-friendly. As a result, you wind up with features like the Rest Stop area where families including children can stay busy during the event, and there's a great Happy Hour event on the show floor the first night of each event, featuring music, great food, and free drinks.

"I would like to give credit to Missy and Kathy Budsberg [SWM Executive Advertising Assistant] for the idea of the Rest Stop," said Gary Reichert, SWM CEO/Publisher. "Having a place for kids and family to relax and hang out is a fantastic idea and frankly something that would not have ever occurred to me. We have a great team.

"Our happy hours always seem to turn out great. Good food, music and beverages help lighten the mood and present the chance to get to know customers and peers on a different level. Our shows are about actually doing business and sometimes I think more happens in the Happy Hour than on the trade show floor."

ATTENDEE REACTIONS

Paul Rankin lives in Minnesota and wants to become a shed builder. He's not sure where he's going to live and what he's going to build, but he's now farther along than he was before the show. "The show was great not only in presenters but the manufacturers, and also the people who were there," he said. "I spoke to manufacturers. It was a good experience all the way."

Alex Walker of Walker Buildings said the show is primarily a networking event for him but he also learned a lot. "I thought it was very educational," Walker said. "We use these shows for networking and as a great tool to meet the right people and make connections." A highlight of products and ideas that he saw on the show floor came from BETCO, which makes rollup self-storage doors. "One of the coolest things that I saw was a bolton motor for the rollup doors that would really be useful for a lot of our customers," said Walker, whose company sells metal buildings nationwide. "They're also the manufacturer that we buy our doors from, so it's supported with the rollup doors that we're already using."

Jeremiah Martin of Sloping Ridge Structures in Tennessee is a builder/manufacturer who builds onsite and ships to the local region. The company uses Central States Metal protected by Central Guard and painted by Valspar, and Piva windows. He said his goal for the show was to "meet new suppliers and connect with existing suppliers. Our walk-through doors are from Midco and I wanted to see them again. And I wanted to meet new suppliers."

Martin said he and his wife "enjoyed it and we felt it was worth the time. It was a long day; it was 15 hours and 10 minutes [including travel]. But we felt it was worth it and walking away from that show, it's getting better each year and the staff works really hard."



Acu-Form wins the award for perseverance. This photo was taken after 90% of the exhibitors had taken down their booths, but Acu-Form still had prospects, so it worked overtime.



Cold Spring Enterprises unveiled its VersaBend tube benders.

EDUCATIONAL SESSIONS

Robbie Ward of Ascential Buildings has retail locations in Virginia and West Virginia. Ascential sells sheds from Pine View Buildings in Statesville, N.C., and metal from several companies. He said his company had a successful show walking the floor and attending the educational sessions.

"The objectives were to find sales training to implement, and to network with other dealers, and looking into marketing," Ward said. "We have a full-time marketer but we've been looking to outsource our website."

Given that sales advice was his goal, it's not surprising that Ward said his highlights were in the educational sales

Trade Show News))



T&H Lemont ran a presentation to help people learn how to clean and maintain their roll formers.



Hershey's Metal Meister demonstrated VarioBend folders.



Jhet Burkhart mans the Bradbury Group booth.



Wall-Lift is a powered hoist system for lifting walls. Each unit can lift 440 pounds. A small but powered demonstration unit was on display.

sessions, including back-to-back sales sessions by L.J. Obenauer and Andrew Boyle of Making Sales Simple. Another goal was learning how to offer financing to customers, so he spoke with RTO National and a couple others on the show floor about improving that area of his business.

Put it all together, and Ward likely found a sales training program at the show, a financing/RTO partner, and a website management company. Not bad for a day and a half of walking a show.

Ward added that the show and this magazine are critical to his business. "It is a closed market and (the show and magazine) help branch it and pull us all together," he said. "So we cling to this stuff."

Corey Stephenson of Ozark Portable Buildings, which has locations centered around Missouri and Illinois, said the education sessions were just that, educational. He mentioned a social media marketing program run by Barbara Garcia of Shed U, which he called the best class he's attended. "She was very specific with the details that she gave, including actual advertising budgets," he said. He said Garcia went into specifics with LinkedIn on how to reach dealers and potential customers.

Added Jonathon Steinsultz of Ozark Portable Buildings, "I learned how to build forms to generate leads, and how to create ads to solve problems for your customers to tailor the solutions they need." Garcia recommended quarterly ad campaigns on

LinkedIn, and then changing to a new ad every quarter.

SHOW FLOOR HIGHLIGHTS

Among the highlights on the show floor were post-frame structures erected by Best Buy Metals and True Metal Supply that centered around metal trusses. Other products that would interest builders and contractors included the Wall-Lift system for more easily lifting walls during construction, and a couple roofing products from Neil's Roofing (a roof ladder, and a PVC vent).

In addition to the show's exhibitor booths and educational sessions, Shed University presented its programming to shed lot owners and salespeople on January 23-24 (the days leading into the GSCB show, in the same conference center).

The next Shield Wall Media show



Chris Davis of Dripstop® explains condensation control.

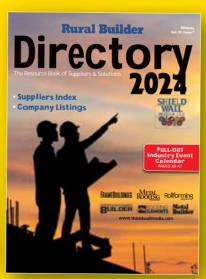
is the Post-Frame Builder Show in Branson, Missouri, June 19-20, followed by the Construction Rollforming Show in Grand Rapids, Michigan, September 18-19. Learn more about the company's shows at shieldwallmedia.com/shows. For exhibitor information, contact Missy Beyer (920) 216-3007 or send her an email at missy@shieldwallmedia.com. RF

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METALCON INTRODUCES 2024 ADVISORY COUNCIL

METALCON, the metal construction industry's only global event dedicated to the application of metal in construction and design, introduces its 2024 advisory council, representing all facets of the industry and devoted to bringing new educational programming, handson skills training, clinics and demos and networking opportunities to Atlanta in October.

"We are delighted to announce the 2024 METALCON Advisory Council, an esteemed group of industry leaders comprised of contractors, architects, manufacturers, metal building, roofing and panel experts, content media specialists and industry associations," says Judy Geller, METALCON's Vice President of Tradeshows.

"It would be impossible to deliver METALCON's broad spectrum of world-class education, meeting the ongoing needs of the industry without these volunteers who are generous with their time, insights and ideas."

New council members for 2024:

- Liam Beal, Structural Design Engineer, Package Steel Systems, Inc.
- Scott Yarbrough, Owner & General Contractor, Ozark Metal Buildings
- Tom Seitz, Executive Director, Metal Composite Materials Alliance, Metal Construction Association

Returning council members:

- Alan Scott, Director of Sustainability, Intertek Group plc
- Chandler Barden, President, CIDAN Machinery Inc.
- Heidi Ellsworth, Partner, RoofersCoffeeShop, President, Metal & Owner HJE Consulting
- Judith Kleine, Architect, Judith Kleine Architect, LLC
- Paul Deffenbaugh, Chief Content Officer, Deep Brook Media
- Rich Pontius, VP of Design, Marker, Inc.
- Steven Gaynor, Principal Consultant, Pivoth Corp.
- Todd Miller, President, Isaiah Industries, Inc.

• Tony Bouquot, General Manager, Metal Building Manufacturers Association & VP at Thomas Associates, Inc.

"These industry leaders bring their knowledge and expertise to create new and diverse programming," says Geller. "We appreciate their time and commitment to ensuring METALCON delivers the comprehensive and relevant education that our attendees have come to rely on each year."

METALCON 2024 takes place from Wednesday, Oct. 30-Friday, Nov. 1 at the Georgia World Congress Center in Atlanta.



CORNERSTONE BUILDING BRANDS® UNVEILS FORTIFY BUILDING SOLUTIONS™

Cornerstone Building Brands, the largest manufacturer of exterior building products in North America by sales, has unveiled its newest brand, Fortify Building Solutions $^{\text{\tiny ML}}$.

The new brand is an integration of three of the company's heavyweights—Heritage Building Systems®, Metal Depots™ and Reed's Metals®—which leverages an expansive plant network and major purchasing power.

"Fortify Building Solutions brings together the value of our Residential Metal Roofing and Metal Buildings solutions, our talented and dedicated employees in local markets and our full-service capabilities to achieve something new—and truly great—for America's building materials industry," says Matt Ackley, President of Shelter Solutions at Cornerstone Building Brands.

This move by Cornerstone Building Brands is a strategic move with a renewed focus on local customers that will bring improved access, service and personalized support.

The Fortify Building Solutions brand will serve customers with one of the largest selections of metal building products and accessories in the industry. The expansive assortment includes metal roofing systems, metal wall panels, components, pole barns, Hypersteel™ coldformed buildings and pre-engineered metal buildings.

DEWALT MARKS 100 YEARS

DEWALT, a Stanley Black & Decker (NYSE: SWK) brand, is celebrating its 100th anniversary of powering the pros. The company has been delivering tools to meet the needs of professional tradespeople around the world since 1924 when Raymond DeWalt's forward-looking vision resulted in the company's founding.

"DEWALT has been committed to professional tradespeople for the past 100 years, and Raymond DeWalt's founding principles of innovation, safety and productivity remain the core ethos of our company today," said Chris Nelson, Chief Operating Officer, Executive Vice President and President, Tools & Outdoor at Stanley Black & Decker. "When we put the DEWALT name on something, it's a commitment that our tools will help get the job done right. This milestone anniversary is also a humbling reminder of both the responsibility and critical role DEWALT plays supporting the trades with solutions, training and resources needed to meet the demands of the future."

DEWALT has championed the trades sector since its founding, and in 2019, the company began offering annual DEWALT Trades Scholarships to support and grow the next generation of trades professionals. It continues to expand its commitment to the future generations of tradespeople. In 2023, the company pledged \$30 million over five years toward its Grow the Trades initiatives to support active and aspiring tradespeople. In addition, it contributed nearly \$7 million last year to programs that support

tradespeople, including trade schools, VOCTEC schools and other training organizations, while also collaborating with industry and non-profit partners on increasing women, diversity and veteran participation in the trades.

Built on Innovation

Raymond DeWalt was a tradesman in Pennsylvania in the early 1920s and became a power tool pioneer when he sought a way to streamline and expedite wood-cutting operations without sacrificing quality or safety. His journey led to the invention of the "Wonder-Worker," an adjustable electric radial arm saw that provided the ability to efficiently execute multiple operations on one affordable piece of equipment, and the creation of DEWALT.

The "Wonder-Worker" set the stage for DEWALT to begin distributing products both nationally and internationally, with the company counting household names like Steinway & Sons and Westinghouse Electric Co. among its satisfied clients. By 1927, Sears, Roebuck boasted that DEWALT's saw contributed to helping manufacture "50 ready-cut houses" each day.

Later in life, DeWalt focused on helping close the skilled trades gap. He became a shop teacher at Mechanicsburg High School in Pennsylvania, educating the next generation of professional tradespeople. DeWalt passed away in 1961, but his trailblazing legacy lives on in the tools and outdoor products that bear his name.

ENGLERT, INC. PARTNERS WITH REPS OF OHIO FOR MIDWESTERN EXPANSION

Englert, Inc., a prominent figure in the metal roofing manufacturing industry, has announced a new representation agreement with Reps of Ohio, experts in building materials representation. This strategic partnership marks Englert's commitment to expanding its presence in the Midwest.

Reps of Ohio, known for its robust portfolio and deep knowledge of the building materials market, align perfectly with Englert's high-quality standards and innovative metal roofing products. Its experience and expertise in local trends and customer needs make them an ideal representative to promote Englert's metal roofing solutions and foster significant growth.

Englert is confident that this collaboration will enhance its market reach, enabling the ability to exceed the current market expectations.

HOME DEPOT TO ACQUIRE SRS DISTRIBUTION

The Home Depot*, the world's largest home improvement retailer, has entered into a definitive agreement to acquire SRS Distribution Inc., a residential specialty trade distribution company across several verticals serving the professional roofer, landscaper and pool contractor.

SRS will accelerate The Home Depot's growth with the residential professional customer. SRS complements The Home Depot's capabilities and will enable the company to better serve complex project purchase occasions with the renovator/remodeler, while also establishing The Home Depot as a leading specialty trade distributor across multiple verticals.

With this acquisition, The Home Depot now believes its total addressable market is approximately \$1 trillion, an increase of approximately \$50 billion.

SRS's 2,500-plus professional sales force and 760-plus branch network across 47 states, together with its 4,000-plus truck fleet and jobsite delivery capabilities, will enable The Home Depot to extend its offering to residential specialty trade pros while better serving renovator/remodelers.

Under the terms of the merger agreement, a subsidiary of The Home Depot will acquire SRS for a total enterprise value (including net debt) of approximately \$18.25 billion. The closing of the acquisition is subject to customary closing conditions, including regulatory approvals, and is expected to be completed by the end of fiscal 2024. The transaction is expected to be funded through cash on hand and debt.

MALCO TOOLS ANNOUNCES BUILDING EXTERIOR TRADE-PRO OF THE YEAR WINNERS

Malco Tools, one of the nation's leading solution developers and manufacturers of a variety of high-quality tools for the building construction trades, has announced the winners of its second annual Building Exterior Trade-Pro of the Year Award program. The contest recognizes five of the top U.S. construction professionals committed to excellent work, supporting their communities and working safely in the field.

The following winners will receive \$1,000 in Malco tools of their choosing:

- BJ Tippman, Owner of ABC Seamless, Fort Wayne, Indiana
- Z.L. Sharp, Carpenter, Park Hills, Missouri
- Jeffrey Tassinari, Shop Manager & Fabricator at Snow and Jones, Middleboro, Massachusetts
- Gary Gahler, Senior Project Manager at McAllen Valley Roofing, McAllen,
- Gary Valencia, Owner of Kasa Builders/Wood Design, Vadito, New Mexico

"Malco is proud to continue to recognize and uplift Building Exterior Trade-Pro of the Year winners for their professional achievements, safety excellence and contributions within their communities," said Rebecca Talbot, vice president of marketing at Malco. "These building professionals represent hard work and an admirable dedication to their trade. We are excited to have the opportunity to continue this program and spotlight this exceptional group of award recipients."

As a strong supporter and advocate of careers in the trades, Malco donates significant quantities of in-kind products and apparel annually to a variety of skilled trade education programs, competitions and events across the country. Malco also hosts the annual HVAC Trade-Pro of the Year award program, which is currently open for nominations until June 28, 2024. RF

New Products))



PROGRESSIVE MATERIALS READY PATCH (RP 300)

Progressive Materials (PM Silicone) has announced the introduction of its latest product Ready Patch (RP 300), a versatile, fibered sealant that's designed to stop leaks instantly — even under water. This new product from Progressive Materials, a leading manufacturer of silicone roof coatings, can be applied on flat or vertical surfaces and stops water penetration instantly. RP 300 will cure out completely in wet or dry locations and will result in a flexible patch over holes, cracks, or splits, as well as around flashings, vents, metal edging, and more.

https://pmsilicone.com



S-5! SOLAR ATTACHMENT SOLUTION

S-5!, an authority on attachments for metal roofs, introduces its newest addition to its balance of systems lineup, the MLPE (Module Level Power Electronics) Mount.

The S-5! MLPE Mount[™] provides a universal, cost-effective method for attaching module level power electronics (MLPE) directly to solar PV module frames. Designed for use with most solar modules, the MLPE Mount secures optimizers and microinverters along the underside of the module frame at desired

locations so wire management is simplified. This provides the versatility needed to better handle module-to-module wire management and electrically bonds the equipment together to easily comply with grounding requirements.

The MLPE Mount is ideal for use with all S-5!'s solar attachments and can be used in rail-based installations or paired with the PVKIT* rail-less solar mounting solution for direct attachment to metal roofs. A unique tab feature makes installation quick and easy, and less likely to rotate during installation, eliminating hassle—one hand can easily position the MLPE device on the frame, while the other hand tightens the bolt to secure it.

The MLPE Mount is designed for solar developers, EPCs, installers and endusers who desire an economical, flexible and easy-to-install MLPE mounting device for PV module frames, without having to rely on attaching to rails.

www.S-5.com



SHERWIN-WILLIAMS COIL COATINGS PRINTED METAL COATINGS

The Coil Coatings division of Sherwin-Williams has released a collection of printed metal coatings colorways, Emulate, for product and design professionals. The collection derives inspiration from mimicking the beauty of nature and aims to bring an enhanced look of natural building materials in wood, stone and metal to enable architects and product manufacturers to complete their vision in a new way.

A collection highlighting new prints and a fresh take on classic looks, Emulate allows for unlimited possibilities by using a solid base coat and layers of ink that can be created with unique patterns and rich multi-layer effects. By utilizing a rotogravure printing process, these coatings are applied with an impression roller for the desired look of nature to the metal substrate.

Emulate mimics the design, pattern and structure of common building materials and is further broken down into categories reimagined through time. The latest offering includes 30 total colorways across specific collections for wood, stone and metal:

- Wood "bringing nature to life," inspired from oak, walnut, burl and barnboard.
- Stone "a vision of strength," chiseled in marble, travertine, concrete and terrazzo
- Metal "modern durability," leaf, weathered, burnished and hammered.

coil.sherwin.com



WESTLAKE ROYAL BUILDING PRODUCTS SWIFTANCHOR™ BASE SHEET

Westlake Royal Building Products™ (Westlake Royal), a Westlake company, has introduced SwiftAnchor, a high-performance and mechanically fastened base or anchor sheet. SwiftAnchor is designed specifically for the optimal adhesion of Westlake Royal TileSeal™ HT and Westlake Royal™ MetalSeal HT underlayments. Incorporating a patented nail gasketing technology, the product offers superior moisture and wind uplift resistance combined with a high grip backing for deck grab and improved walkability.

SwiftAnchor is notably constructed of three layers. The top engineered coating layer is designed for optimal adhesion, walkability, and as a gasketing moisture barrier. The second layer offers strong tear-resistant reinforcement, while the third provides exceptional grip to the

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New Products))

deck along with added gasketing moisture barrier protection. Combined, the three layers provide protection from the elements in all climates, seasons and weather.

The product is offered in rolls each sized 40" x 300' and comprised of approximately 10 squares, or 1,000 square feet. With each roll weighing 45 pounds, the product is easy to load and install on the roof. Clearly identifiable lay lines also simplify installation. SwiftAnchor's patented gasketing technology, along with its UV and thermal stability, enable it to be left uncovered and exposed up to 60 days.

It is certified for ASTM D8257 and meets the stringent performance requirements of Miami-Dade and FBC 2023 when installed with Westlake Royal TileSeal HT or Westlake Royal MetalSeal HT underlayments.

https://westlakeroyalroofing.com/



SHEET METAL SUPPLY PVDF BLACK METAL

Sheet Metal Supply, a leading fabricator and supplier of a variety of metal construction products, is now stocking 16-gauge and 18-gauge galvanized steel for the fabrication of hat channels, Z-channels and U-channels in Polyvinylidene Fluoride (PVDF) Black.

"We've been getting more and more requests for pre-painted components for use as sub-structures under rainscreens and other façades," says Phoebe McCorkindale, Director of Operations at Sheet Metal Supply. "Black sub-girts provide a shadowing aesthetic that is growing in popularity.

www.sheetmetalsupplyltd.com



SHERWIN-WILLIAMS REBAR COATING

Sherwin-Williams Protective & Marine launched Sher-Bar TEC, a transformative new coating technology for the concrete industry. Designed for an array of construction applications and environments, the textured epoxy coating (TEC) redefines standards for rebar coatings, offering increased bond strength, damage tolerance and corrosion resistance for both horizontal and vertical concrete projects. These properties enable improved asset longevity and reduced environmental impacts associated with construction and maintenance.

As a secondary coating, Sher-Bar TEC provides added protection for the industry's leading corrosion protection solution: epoxy-coated rebar (ECR), which is commonly referred to as "green bar." With a smoother surface than uncoated rebar, ECR results in reduced bond strength with concrete, necessitating the use of more rebar in projects. This additional rebar adds costs and weight, as well as on-site rebar grid congestion when pouring concrete. These drawbacks have limited the use of ECR worldwide, leaving structures susceptible to corrosion and decay.

Sher-Bar TEC, with its textured elements, offers significant improvements over both ECR and uncoated rebar, known as "black bar." Tests by independent labs and research universities have documented and demonstrated

Sher-Bar TEC's superior performance in bond strength, durability and corrosion resistance. The research led to the development of the new ASTM A1124/A1124M-23 Standard Specification for Textured Epoxy-Coated Steel Reinforcing Bars, underlining the importance of TEC in the construction industry.

https://industrial.sherwin-williams.com/



PYRAMEX® GL1010W COWHIDE SAFETY CUFF GLOVE:

Pyramex*, a leading provider of personal protective equipment, has announced its newest offering in hand protection: the GL1010W premium cowhide safety cuff glove, which is engineered with premium durability, comfort and safety in mind.

It's crafted from A-grade split shoulder cowhide leather and reinforced with Kevlar* stitching. The glove's design includes heavy-duty knuckle protection and exceptional abrasion resistance, making them ideal for tough jobs that demand long-lasting performance.

Its rubberized safety cuff shields wrists while also allowing for quick and easy removal. The GL1010W gloves are built for flexibility and comfort, with premium leather, a gunn cut and wing thumb design that enhances dexterity, making them great for tasks that require wearing the gloves for extended periods of time.

They are tested to meet ANSI/ISEA 105 standards for cut resistance, abrasion resistance, puncture resistance, and contact heat protection up to 284°F.

www.pyramex.com RF

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If you are looking for more information from companies featured in this issue, fill out this form.

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Inaugural CSI-Annual & Market Report Is On Its Way

s of writing this, the first CSI-Annual & Market Report is sending to the printer. Because of the timing the Annual may be included with this issue.

July 2 will be the fifth Anniversary of our acquiring the "Construction Division" from the previous owner, F+W Media. In that time, we have expanded into multiple related

markets. These include roll forming, sheds and portable buildings, and cold-formed metal. Adding these to the audiences from our legacy magazines, there seemed to be one frustrating point spread across the markets: a lack of actionable data.

We were asked to participate in market surveys by sharing our lists. At that time, the combined subscription list for our magazines was almost 60,000. Performing the due diligence revealed that some of the surveys had contact lists of under 100 people. Not 100 responses, but under 100 people on the list to receive the survey. Our experience told us there had to be a better way.

We experience about a 6% completion rate for the recipients of the survey; naturally, the more the better. Our surveys are

still growing, and we are refining our best practices regarding survey content and generating responses.

This year we received 302 responses to our survey. That's not earth shattering, but enough to generate data with a reasonable confidence level.

Typically, market reports are sold as proprietary and cost recipients several hundred to several thousand dollars. We are providing it to all our subscribers free of charge.

If you see value in data for our markets and use this information in any way, please help us improve for the 2025 CSI Annual. There are a few simple things you can do:

First and foremost, take the survey. The more responses we have the more complete the data. The 2024 Annual is admittedly weaker in some geographic regions and some market segments. More responses solve this concern.

Second, tell people and share this information. The more people who know about this, the more people can benefit from

> the information and take the survey. We are publishing and distributing the report free to subscribers so the information can be shared and help grow our corner of the construction industry.

> Third, suggest topic areas or questions we should add to the survey. My email and phone number are all over our publications and I appreciate feedback.

> Last, but certainly not least, consider sponsoring a section. If you look at the metrics (cost per thousand) this is the most cost-effective product we have to reach our audience.

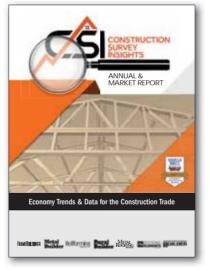
> Collecting, curating, printing, and distributing the data is expensive. I personally want to express sincere gratitude to the sponsors who helped us make this possible

and our advertisers. Without your support, we could not make this type of investment in the industries we all serve.

Thank you for your confidence and support as we continue to grow and support our industries. RF

If you like the CSI columns or find the information useful, help us help you.

Please complete the Shield Wall Media construction industry survey and share it with your colleagues. A larger survey sample generates more reliable data.





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