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Who deserves industry accolades?

As you flip through the pages of Metal Roofing, you should take notice the Metal of Honor logos on some of the ads. Out of 80 contenders on the ballot for the Metal of Honor award, only a few dozen companies were awarded this industry honor in 2023. Only companies that have received enough votes from people in the industry have the right to use this special logo.

The MOH program was created to allow metal roofing professionals an opportunity to cast a ballot to support those who help them most: the companies that provide quality products and great service. It's an excellent way to support those companies that provide roofing companies with the materials and services needed to make your business successful.

Now, for the first time, you can influence the list of companies that appears on the ballot. Here is your chance to nominate your suppliers so they may appear on the ballot. While there are write-in spaces on the ballots, the odds are quite slim that write-in votes will garner enough votes to receive an award. To my knowledge, we've not awarded any

write-in nominees with a Metal of Honor. I can't help but think there are some great companies out there who are not getting the recognition they deserve; getting on the ballot is the first step to getting them that recognition. One might even argue it's the most important step.

Here's your chance to make your mark on the ballot. All we need is the name of the company you are nominating, your name and contact information, and a brief explanation of why you think they deserve a Metal of Honor.* You can send the information to me via email, by postal mail, or use our convenient online form at readmetal-roofing.com/moh-nomination-form.

We'll have the ballots ready and available so people can vote in person at the Construction Rollforming Show September 27-28 in Cincinnati. The ballot will also be published in the October/November and December

editions of Metal Roofing, and online voting will also be available. To get your nominees on the ballot, we must receive them before August 1.

Speaking of the Construction Rollforming Show ... if you have any interest in making your own panels and trims, you can't afford to miss this show. It's exclusively dedicated to forming metal for construction. While September seems like it's a long way off, it will be here before you know it. Registration is now open, and you can save \$25 off admittance by pre-registering. (Registration at the door is \$75.) Learn more about what the show has to offer beginning on page 38.

Karen Knapstein, Managing Editor
karen@shieldwallmedia.com

*Nomination is not a guarantee of inclusion.



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ON THE COVER:

Titanium underlayment covers a roof deck before the installation of through-fastened metal panels. PHOTO COURTESY OF TITANIUM®

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Recycled Content of Metal Panels

By The Metal Construction Association (MCA)

The Metal Construction Association [www.metalconstruction.org] brings together the metal construction industry for the purpose of expanding the use of all metals used in construction. MCA promotes the benefits of metal in construction through technical guidance, product certification, educational and awareness programs, and many other initiatives. This technical bulletin by the MCA was originally published in 2018 and is reprinted here with permission.

Metal roofing and siding panels are made with the highest recycled content from the most recyclable materials on earth, making them a great choice not only for today, but for future generations to use. Your old steel car, soup can or washing machine may become part of your new roof or siding material! The federal government and most states are mandating energy-saving requirements for buildings or giving tax breaks for energy-efficient and energy-saving construction products. Because recycling decreases the amount of energy required to produce metal products, recycled content is also being recognized and rewarded, making recycling an economic as well as an environmental benefit.

California, New York, and Pennsylvania are leading the way in energy-saving initiatives, using the “Leadership in Energy and Environmental Design” (LEED)[®] rating system to certify “green” buildings under the system created and promulgated by the U.S. Green Building Council (USGBC).

Energy savings also come from many other efforts including design considerations such as landscaping that saves water or highly reflective metal roof finishes that reduce air conditioning load to save energy.

Steel Recycling

Steel is the world’s most recycled material. Every year between 60 and 80 million tons of steel are recycled in the U.S.

Two different processes, the basic oxygen furnace (BOF) and the electric arc furnace (EAF), are used to produce steel. Both processes utilize available recycled scrap steel to produce new steel.

Steel construction products contain significant levels of recycled content. Additionally, many steel products recovered from demolition or retrofit projects are suitable for reuse. The LEEDv4 Reference Guide (page 535) allows a default value of 25% post-consumer recycled content for any steel product. However, some steel products (e.g. structural sections and reinforcing bar) may have recycled content levels as high as 100%. These higher values may be used in the LEED credit calculations if company-specific recycled content information is available from the steel

product supplier. As described in the LEEDv4 Reference Guide (page 536), “industry-wide or national average recycled content values may not be used in calculations to support achievement of this credit.”

Care should be taken when making environmental comparisons between steel made by the BOF and EAF process. Both are part of a complementary steel-making system.¹

Aluminum Recycling

Aluminum is also recycled extensively from both pre-consumer and post-consumer sources and provides the most valuable component for most municipal recycling efforts. A survey in mid-2008 indicated that the recycled content of domestically produced, flat-rolled products for the building and construction market was approximately 85%. The survey of producers indicated that on average about 60% of the total product content is from post-consumer sources. In addition, at the end of a long, useful life, aluminum roofing and siding panels can be repeatedly recycled back into similar products

Producing aluminum from recycled material requires only 5% of the energy required to produce aluminum from bauxite ore and every ton of recycled aluminum saves four tons of bauxite. Additionally, using recycled aluminum instead of new materials reduces air pollution generation such as CO₂, SO_x, and NO_x by 95% and water pollution by 97%.²

Copper Recycling

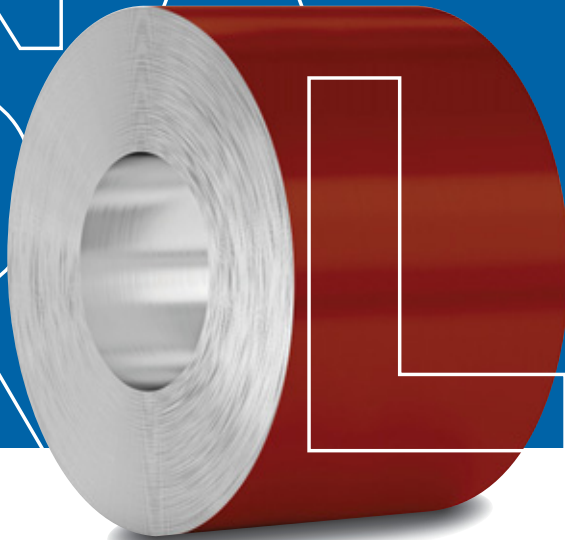
Copper also is routinely recycled with the highest scrap value of any building metal. Copper’s high cost makes it a favored product for collection and sale to nonferrous-scrap recycling companies. The scrap is melted down and reformed into a new, appropriate product. This re-melting takes only about 15% of the total energy consumed in mining, milling, smelting, and refining copper from ore.

The average recycled content of all copper products is 44.6%. Copper wire is the biggest consumer of pure copper and, as a result, copper wire production uses little copper scrap. The remaining copper market, including copper roofing, contains 75% recycled product. Almost 50% of this is post-consumer recycled product.³

Zinc Recycling

Over 30% of zinc used in all applications worldwide comes from recycling. That percentage is expected to increase.^{4,5} In building applications, especially in Europe, more than 90% of old, rolled zinc products are recovered and generally recycled into other types of zinc products.

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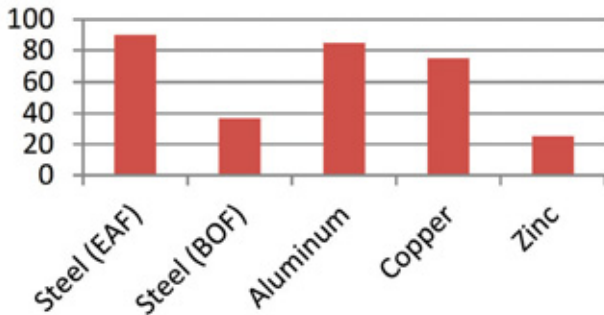
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Recycled Content of Metal Construction Materials (%)



An estimated 13 Mt of refined zinc metal is produced annually. Of this, 12 Mt comes from ores and concentrates while the balance is supplied from old scrap that requires refinement before reuse. The total amount of zinc consumed annually is approximately 16 Mt. The 3 million ton gap is supplied from secondary or recycled sources that do not require further refinement prior to reuse. This category is made up primarily of alloys (brass and die castings) and zinc sheet, which are simply re-melted.⁷

The average recycled content of refined metal zinc in building products is estimated to be 15%.⁶ However, the total recycled content of zinc, including all potential building applications (alloys and rolled zinc), is approximately 25%.

For zinc, the End of Life Recycling Rate is the preferred measure as it quantifies the amounts of zinc actually recovered at the end of product life (“old scrap”) and recycled into new zinc metal. This measurement requires an understanding of historical production and consumption levels, product lifetimes, and collection rates. It is estimated that 60% of available zinc at the end of life is recovered and actually recycled.⁶

Conclusions

The high recycled content and recyclability of metals like steel, aluminum, copper, and zinc allow for metal construction

Insights From a Recycler

By Linda Schmid

In 2022, Kripke Enterprises sold 190,000,000 pounds of recycled metal, so there is a whole lot of recycling going on. According to Alan Sallee Jr., Sr. Vice President of Sales, their facilities collect old aluminum rims, scrap radiators, catalytic converters, old dishwashers, old sheeting from buildings, and more.

Scrap aluminum is sorted into different grades and is resold as recovered secondary ingot (a recycled solid mass of high purity aluminum) or sent to the extruder for extrusion.

The wonderful thing about metal is its recyclability. While extraction of aluminum from the ground along with processing and refining is very costly and requires high energy consumption, recycled aluminum is around 92% more efficient. Further, it doesn't lose any of its inherent strength or performance qualities so it can be recycled over and over again.

Primary steel is created by forcing oxygen through molten iron ore, thereby “oxidizing it and turning it into steel. Secondary steel can be made from scrap iron or scrap steel which is melted down in an electric arc furnace. Secondary steel production is about twice as efficient as primary production.

Sallee says the steel they collect is resold, and put through that reclamation process, turning it into new steel. He estimates that about 90% of the steel purchased is recycled. **MR**

products to be routinely included on listings for “green” or sustainable building materials.

The USGBC LEED green building rating program recognizes the importance of the weighted, total, and recycled content of a building project’s materials. The use of recycled metal can help a LEED registered building project acquire points in many credits within the program. **MR**

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1. www.steelsustainability.org
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5. “UM Recycling Workshop,” *Report of proceedings, Brussels, June 10, 1999.*
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7. “Le recyclage des métaux non ferreux” (*Recycling non-ferrous metals*), M.E.Henstock, *Publication of the Conseil International des Métaux et de l'Environnement, May 1996*

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Understanding Underlayments

Synthetic or Felt: Which should you use?

Underlayment must be used when installing a metal roofing system over a roof deck. We asked underlayment suppliers and manufacturers for their insights and best practices regarding synthetic and asphalt-saturated felt. Specifically, we asked about the advantages and disadvantages of using synthetic and felt underlayments under metal. They were also generous enough to share installation tips to help make installation “fail-proof.”

Synthetic Underlayment Advantages

- Compared to felt, synthetic roofing underlayment is tougher, faster to install, and repels water.
- No rosin slip-sheet is necessary with synthetic underlayments. Synthetic roof underlayments that are manufactured at higher temperatures than traditional asphalt base roofing felt/underlayments do not stick to metal roofing systems at elevated temperatures.
- Synthetic lays flat for smoother, faster installation
- It provides better long-term UV protection prior to the installation of the metal roof system.
- Has better resistance to wind uplift when exposed, prior to the final roof installation.
- Can be safer to walk on, even when wet.

Synthetic Underlayment Disadvantages

- Generally, synthetic underlayments don’t protect the roofing substrate from water penetration before, during, and after the final roofing system is installed. Should the metal roof develop a leak or damage, the synthetic underlayment does not provide a watertight seal against wind-driven rain. Only a properly installed self-adhered roofing underlayment provides complete waterproofing protection.
- Costs more than felt.
- Usually has a lower permeability rating, which is great for keeping out moisture, but slightly reduces the ventilation in the roof.



SharkSkin self-adhesive underlayment applied to the deck of Newbury Park High School. PHOTO COURTESY OF SHARKSKIN/KIRSCH BUILDING PRODUCTS.

Felt Underlayment Advantages

- Costs less.
- Is available almost anywhere because it is more commonly used.

Felt Underlayment Disadvantages

- Limited exposure before it degrades; generally can’t be left exposed for more than a few hours.
- Material may dry out or leach oils in the heat, which would impact the felt’s ability to protect against moisture.
- Not resistant to high temperatures.
- Doesn’t last as long as synthetic.
- Prone to tearing in high winds and during installation.
- If exposed to moisture, the mat can absorb water and wrinkle the felt, which can prevent the metal roof system from laying flat. This is especially true with standing seam metal panels.
- Weighs more, making it harder to work with.
- The slippery surface can sometimes make it more difficult to install compared to synthetic underlayment.
- Asphalt is made from petroleum, which is a highly flammable substance and introduces concerns with regard to fire safety
- Slip sheet is necessary with asphalt-based felts/underlayments to prevent adhering/sticking to the back side of metal roof systems.

Underlayment Installation Tips

- ☑ “Choose a quality premium synthetic roof underlayment that is engineered for the application, roof pitch, weather *continued on page 13*

Metal Roofing expresses its appreciation to the following underlayment specialists for sharing their insights and expertise:

• Mark Strait, Kirsch/SharkSkin	www.sharkskinroof.com
• David Delcoma, MFM Building Products	www.mfmbp.com
• Maggie McGarry, Owens Corning	www.owenscorning.com
• Todd Gluski, OX Engineered Products	www.oxengineeredproducts.com
• Christian Rios, Levi’s Building Components	www.levisbuildingcomponents.com



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*Lame Deer,
19th century Lakota leader*

Eagle Feather Metal Roof Honors Native American Heritage & Culture

Kirsch Building products has a product for every roofing and wall barrier project. Sharkskin Ultra SA® was chosen as the roof and wall underlayment for Montana State University's American Indian Hall, which honors Native American cultures, beliefs, and traditions.

Of special note on the Bozeman, Montana campus building, which has been in the works since 2004, is the metal roof designed as an eagle feather.

Prior to the standing seam roof and metal wall panels being installed, Sharkskin Ultra SA® provided excellent protective qualities, which included long term UV resistance and excellent high wind uplift resistance.

The beautiful eagle feather metal roof detail was designed and specified to last. The roof is comprised of 22-ga. 70% PVDF-coated Galvalume panels that transition from Silver Metallic on the left end to Slate Gray as the middle tone to Dark Bronze on the right end. The Sharkskin Ultra SA® was selected as the roof underlayment beneath the multi-colored feather-shaped metal roof and metal wall panels, as it will provide long term moisture resistance.

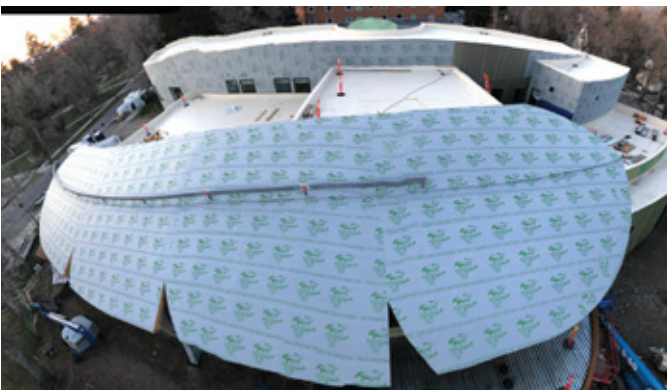
Beneath the standing seam metal roof and wall cladding, Sharkskin Ultra SA® is also providing high-temperature resistance.

In addition to benefitting the roofing system, Sharkskin Ultra SA® has benefits roofers will appreciate. Benefits include its excellent adhesion properties ... it will adhere to the roof and wall substrate, at 10° F and rising, without the need for "primer" which saves the roofer time = labor dollars.

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Sharkskin Ultra SA® is designed to perform in the most challenging circumstances. It is Miami-Dade County, ICC-ES, Florida Building Code and Texas Department of Insurance approved. The high-performance underlayment also has no VOCs, contributes to LEED, and recyclable.

Kirsch Building Products offers a Sharkskin product for every roofing and wall barrier project. Visit www.sharkskin-roof.com today for more information.



Photos, top & middle: Montana State University & Chris Kamman (SkyLab Media House). Bottom: Zach Kilwein, Beartooth Metal Roofing.

Metal Roofing Manufacturer:
Sheffield Metals International, Sheffield, Ohio

Roofing Contractor: Zach Kilwein, Beartooth Metal Roofing, Billings, Montana

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PRODUCT FEATURE

continued from page 10

conditions and primary roof covering.” — Mark Strait, Kirsch Building Products, maker of SharkSkin

☑ “Make sure you read and understand your local building code requirements. And make sure you read the underlayment manufacturer’s installation instructions. Most problems we hear about are the contractor installing the products improperly or — even worse — not following code and having to remove the material and rectifying the situation at their own expense.” — David Delcoma, MFM Building Products

☑ “It’s important to know that synthetic roofing underlayment materials are not standardized, so different manufacturers may make their products differently, and therefore have different levels of performance. Thus, it’s important to do your research and select a trusted brand.” — Maggie McQuarrie, Owens Corning

☑ “It is also important to consider the proper self-adhered product to support properties such as fire resistance. Roof coverings are classified by their ability to resist fire from the exterior of the building; an especially important consideration in areas near the Wildland Urban Interface (WUI) or in energy-generating roofing assemblies. It is important to select a self-adhered material that is tested to achieve a Class A fire resistance.” — Maggie McQuarrie, Owens Corning

Choose Wisely

What could happen if you improperly install (or install the wrong type) of underlayment under metal?

Mark Strait cautions, “Low-temp asphalt self-adhered roof underlayment can melt, oozing out from under the metal roof, and/or down through the roof sheathing, creating a big mess.

“Improper installation can lead to leakage and water intrusion prior to the final roof installation,” he continues. It can also void the metal roofing manufacturer’s warranty and cause injury to the installers, or others working

over the roof underlayment.

David Delcoma, MFM Building Products, adds, “Any type of roofing underlayment **MUST** be rated for high temperature applications due to the high heat generated. This is significantly more important if the roof covering is copper

or nickel, where extreme high heat buildup occurs. Non-high-temp rated underlayments can become brittle, crack, or in the case of self-adhered membranes, the mastic may ooze out. All these conditions can lead to water infiltrating the building structure.” **MR**



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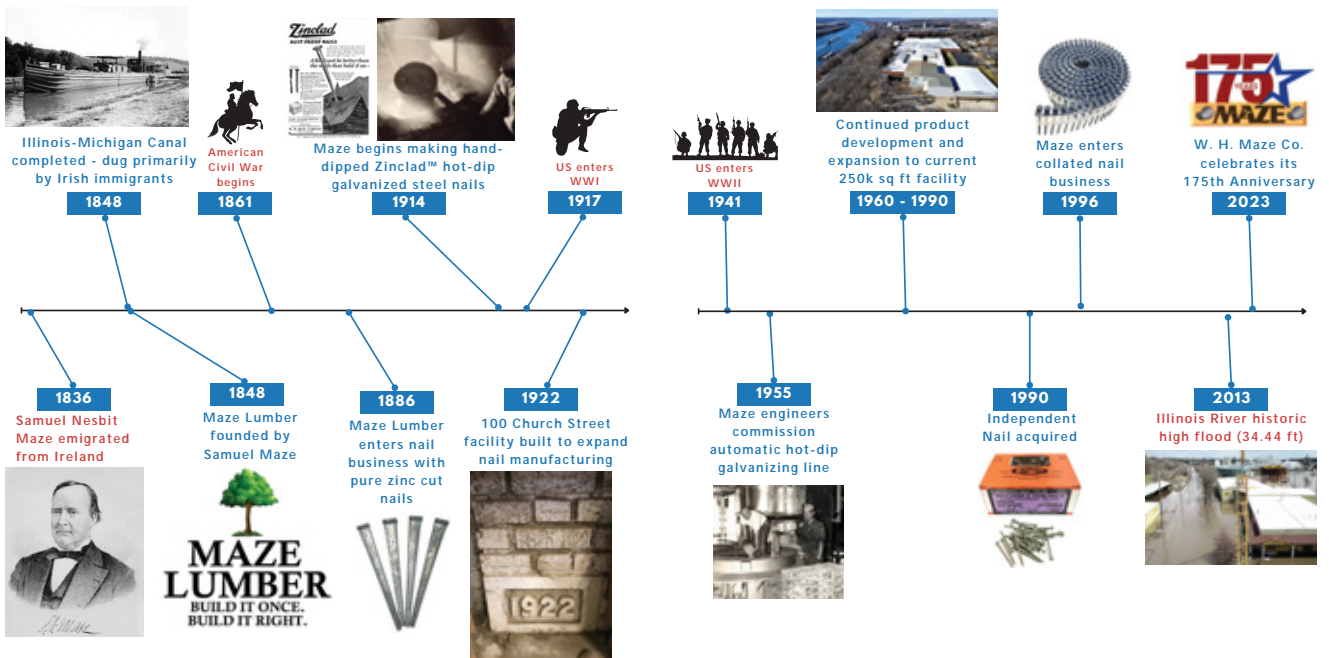
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W. H. Maze Company Through the Years



Company nails a 175-year milestone

In 1848, just 30 years after Illinois became a state, Samuel Maze started his lumber company along the Illinois River. It eventually grew to include manufacturing the nation’s largest selection of specialty nails.

To this day, Maze’s company is still going strong. Maze Lumber is the state’s oldest lumberyard, Samuel’s great-great-grandson, Roelif Loveland is president of Maze Company – and the business is proudly celebrating its 175th anniversary.

“We have been blessed with many generations of great associates — both non-family and family employees,” Loveland said. “A huge part of longevity is having quality people....and the other part is having quality products that are continually demanded in the marketplace.”

“As my brother, Jim, said on the anniversary of his 150-year-old home in Spring Valley, Illinois, we are all simply caretakers of old businesses and old houses. It is our job to nurture them and make certain that they survive and thrive for the next generation. I’m very proud to be spending my years doing exactly that.”

He also said he is impressed by his ancestors’ ingenuity, which set up Maze Co. for longevity.

“It seems like entrepreneurship was the rule rather than the exception back in those days,” Loveland said. “Family-owned and operated store fronts and small businesses sprang up everywhere. The Maze boys were pretty clever fellows and built a very strong business for future generations.”

Over the years, Loveland said there have been steady changes to the family business.

For example, Loveland said nails were once made entirely of

zinc purchased from Illinois Zinc and M & H Zinc. But in 1916 – during World War I, the price of zinc became so high due to its use in the war effort – Maze invented a method of taking steel nails and dipping them into molten zinc to give them a rust-protecting zinc coating. These nails were tradenamed Zinclud® – and they were soon being sold to lumberyards throughout the United States.

That was done by hand at first, but in 1955, Brothers James and Hamilton Maze designed a dipping machine to do the work. Those STORMGUARD® nails were actually double dipped – to greatly increase their longevity. Now homeowners had nails they could depend on to stay beautiful and rust-free for the life of their project.

“The only thing that has stayed the same is that both types of nails were highly dependable and became demanded by contractors nationwide,” Loveland said. For example, Maze invented threaded nails – nails with ring and screw shanks – to really hold tight without nails popping back out on roofing, siding and decking. The Illinois manufacturing plant provides the construction trade with MADE IN USA nails that are hardened, plated, painted and collated – in many types of packages suitable for both builders and consumers.

And with 175 years in the rearview, Loveland said things will continue to evolve. “We continue to change with the times, including updating the products we handle at Maze Lumber and developing new nails that we manufacture and sell at the Maze Nail factory. We’re now looking forward to our bicentennial year!” **MR**



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Installing Exposed Fastener Metal Roofs

Correct fastener installation is critical for a successful metal roof

By Mark Robins

Example of corrugated metal roofing with exposed fasteners. PHOTO COURTESY OF AEP SPAN.

Exposed fastener metal panel systems have an overlapping joint design with a corrugated rib or wave pattern. A fastener (screw) is pierced through both panels attaching into the roof deck or substructure below. To prevent holes causing leaks they must be installed correctly.

Laying Out the Roof

Laying out the roof should always be step one. “Consider the building and panel width and develop a plan to handle off-module situations,” says Kathi Miller, director of marketing and sales training, McElroy Metal, Bossier City, Louisiana. “For example: If your building is 10-feet wide and you’re using a 3-foot panel, you’ll need three full panels and 1 foot from a fourth panel. Before installation begins, you’ll want to know how you plan to address the issue. For example, you might want to cut some material from the first and last panels instead of removing it all from the last panel so the

building looks more symmetrical.”

Make sure there are no nails or other objects protruding from the substrates that might puncture the underlayment or the roof panels. Clean all debris from the roof. Check all conditions for possible



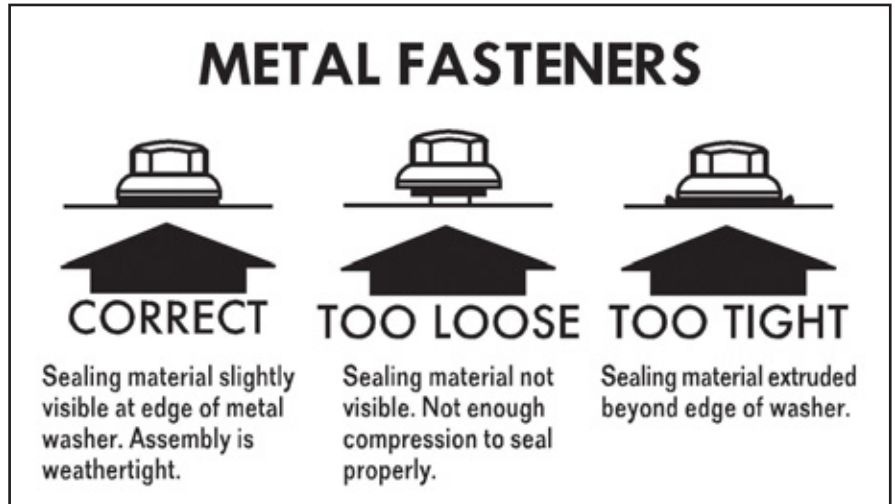
These installation errors occurred when the brick mason scratched and bent the panel downward creating a ponding condition. The panel does not have enough slope to shed the water. Also, screws were left on the roof, which created a rusting problem. PHOTO COURTESY OF STRUKTUREONE GROUP.

roof penetrations that must be added to the deck prior to roof panel installation.

“Place an alignment line along the gable end where the first roof panel will be installed,” says Jeff Haddock, technical services manager, AEP Span and ASC Building Products, West Sacramento, California. “This line must be parallel to the gable edge of the roof deck and square with the eave line. Check the roof for squareness by making a 3-foot line across the eave. Completing the 3-foot x 4-foot x 5-foot triangle should place the 4-foot edge of the triangle parallel with the gable. The first roof panel will be placed parallel with this line. Slight variations or out-of-square conditions up to 3 inches can be covered by the gable trims. It is very important to measure the entire length of the roof from gable to gable. Correct placement of the panels will allow the panels’ ribs on each side to be covered by the gable flashing. This creates a symmetrical appearance on both gables.”



Peter Graves PE, engineer, StrukturoOne Group, Austin, Texas, explains that all the primary and secondary framing and all framed openings should be erected, plumb and square in all directions, with all bolts tightened before sheeting is started. “Ensure the panels are perpendicular to the eave. Using a 3-4-5 triangle or string lines will ensure the panels are perpendicular to the longitudinal direction. [Without it] a sawtooth effect will become noticeable, and the roof edge will creep up or extend out and not remain parallel to the eave. If the panels are symmetrical, sheet-



Correct tightening of exposed fasteners. PHOTO COURTESY OF MCELROY METAL.

ing direction can be erected in either direction. If there is a prevailing ‘view’ or wind direction, the panels should be installed so the overlap line is less visible.”

Installation

The two main types of metal roofing — exposed fastener and concealed fastener (standing seam) — are identified and

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INSTALLATION BASICS

categorized by their attachment. What's different about the attachment techniques? "Exposed fastener panels rely on a visible fastening device to secure the material to the structure," Haddock says. "By contrast, concealed fastener panels have no visible attachment points. Concealed roofing can include direct attachment by way of a nail flange or clip attachment of the roof panel to the structure."

David Quehl, director of sales and marketing, Direct Metals Inc., Fort Myers, Florida, explains that the most common fastener installation procedure for exposed fastener roofs involves a structural fastener, or a stitch or side lap fastener. "The structural fastener is used to secure 26-gauge corrugated metal panel to 16-, 14- or 12-gauge steel purlin, which is a secondary roof support that spans across the steel trusses. The fastener is positioned in the flat of the roof panel commonly next to the major rib of the panel. The stitch screw is used to fasten two 26-gauge panels at the point where they overlap to hold them securely."

Miller explains exposed fastener metal roof installation involves the following steps:

If the panels are installed over a solid deck, installing a vapor barrier on the roofing surface is the first step. Vapor barriers

are not required in applications where the metal panels span purlins or open rafters.

Next, fasten eave and valley trims to the substructure, and use tape sealant and inside closures per manufacturers' recommendations. With these items addressed, normally, it's time to lay your first panel. Be sure to remove any protective film from the trim before installation.

Per your developed layout plan, place your first panel at the eave/gable edge. It's essential to consider the manufacturer's recommended lap direction before beginning installation to ensure you're starting at the proper point on the building. And, of course, it's critical to square the first panel before attaching it to the substructure.

Continue to install panels following the manufacturer's recommended fastener spacing and sequence. Be sure to check each third to fourth panel to ensure you're maintaining cover width modularity.

After completing panel installation, it's time to install any remaining trim items such as gable/rakes, ridge, and hip caps using tape sealant and outside closures per the manufacturer's recommendation.

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Remember to sweep the roof at the end of each day to remove any screw filings. If not, they will rust on the panel.

The Fastener

Correct fastener installation is one of the most critical steps when installing metal roof panels. The manufacturer will include the approved fastener size based on the panel in its approval report or its installation guide. This is how the panels were tested and load tables generated.

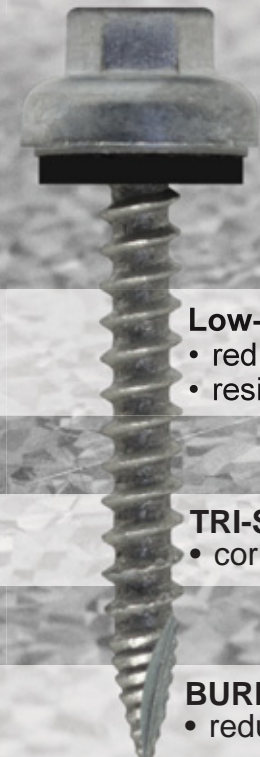
In high-wind areas, panels in the corner and edge zones may require closer spacing to accommodate the increased suction loads. “Follow engineering and manufacturers’ recommendations for additional screw spacing in high-wind regions,” Graves says. “Unless the panel has been tested with fasteners through the high rib, do not install through the high rib. This will not simulate a standing seam roof, as there is no backing to support the fastener. Uplift and gravity loads are undefined, and the screw cannot seal against the panel if there is not adequate support to allow tightening to clamp and compress the washer to the panel. As the panel high rib is pulled downward, the flat of the panel will bend upward.”

Fasteners installed in the flat of the metal with proper sealing washer depth will provide maximum protection against leaks and help maximize the diaphragm strength of the building. Fasteners must be installed perpendicular to the roof plane, not on an angle, and the washer should be properly seated. Fasteners installed too loose (underdriven) allow a quick entry point for water into the building envelope. Fasteners installed too tight (overdriven), may compress the washers on the screws, and could crack, split and erode quickly allowing water to penetrate through the fastener hole.

Quehl explains butyl mastic tape sealant should be applied between roof panels on the high rib at each panel overlap. “This helps to prevent a siphoning effect as water runs down a panel.”

In spite of the above instructions, there is no concrete rule for all fastener installations across all panel types and all manufacturers. Again, because manufacturers have designed and tested each panel system for attachment in a specific manner, it’s important to follow those instructions. For example, at McElroy Metal, Miller says they even specify the sequence and order of which fastener is installed first, second, etc., across the width of the panel. **MR**

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How roof slope affects exposed fastener metal panel installation

By Kathi Miller, Architectural National Accounts, McElroy Metal

The roof pitch or slope refers to the rise or fall of a roof over 12". Roof slope is typically expressed numerically, such as 1:12 or 1/12, meaning the roofing plane increases 1 inch above the eave height for each 12 inches the run travels toward the ridge.

Metal roofing is well-known for its outstanding performance against mother nature. From hailstorms to hurricanes, metal roofing performs better than other material options like membrane roofing and shingles. With that said, like with any other product, problems can occur.

While installation errors lead to most issues, panel side laps, incorrect panel profile selection, and fastener locations can be problematic for exposed fastener panel installations on lower roof slopes.

Panel Side Laps

The term "panel side lap" refers to the area where two exposed fastener metal panels overlap, as shown in the images.

On lower roof slopes, side laps can be prone to a phenomenon called capillary action, which occurs when water siphons its way up the seam into the building envelope. Placing a row of butyl seam sealant on top of the rib of the first panel before placing the second panel on top typically addresses this issue.

Consequently, when using exposed fastener panels at slopes between 3:12 and 1:12, the International Building Code and most panel manufacturers recommend placing a row of sealant tape along the entire overlap connection.

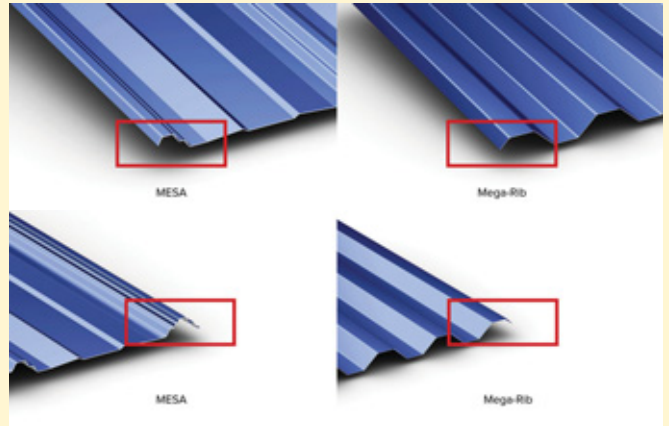
In contrast, projects with roof slopes of 3:12 or greater can omit tape sealant at the lap connection with most panel profiles due to the steepness of the slope and the speed at which water exits the roof plane.

Panel Profile

The panel profile also bears consideration. Major and minor ribs create the aesthetic look of an exposed fastener panel; however, the height of the major ribs isn't the most important element. When considering slope, the shape of the rib on both sides of the panel is more important than its height.

To illustrate this point, consider the images of the Mesa and Mega-Rib from McElroy Metal. The photos show the panel shape on the left side of both panels. While there are some minor nuances, such as leg length and pitch, the shapes appear mostly similar.

In contrast, the images below compare the right side of the panels. Notice the minor bends in the Mesa image. This feature,



often called an anti-siphon channel, creates a barrier against water intrusion from capillary action. Note the lack of this feature for the Mega-Rib panel.

While this difference may seem minor, it isn't. Instead, it directly affects panel performance and weather integrity. Consequently, we recommend butyl seam sealant for all roof installations with the Mega-Rib panel, regardless of the slope. In comparison, butyl sealant isn't necessary for applications with the Mesa panel on slopes above 3:12.

Fasteners

An exposed fastener panel means a screw pierces through the panel and into the substructure during installation. While exposed fastener systems offer a more economical price point than standing seam systems, their use is limited to project types with specific roof slopes.

As the roof slope increases, rain and snow slide off the roof more quickly. In contrast, lower roof slopes allow all forms of moisture to remain on the roof longer and consequently allow more time for water to penetrate the system at the fastener location. While the washer around fasteners seals the hole, incorrect installation, as shown in the chart, and extended submersion of the washer can cause the washers to degrade and allow water into the building. Consequently, exposed fastener panels aren't appropriate for slopes below 1:12.

In summary, minor differences that may appear insignificant often directly impact panel performance. Consequently, confirming that you've chosen the best panel for your roof slope is always best.

Most metal panel manufacturers publish slope minimums for various panel styles on their websites. [MR](#)

Tools for Installing Exposed Fastener Metal Roofs

■ **Clutch-type screw gun.** A depth-locating nose piece allowing variable torque settings is recommended to ensure proper installation of the screws. The following sockets will be required: 1/4" and/or 5/16" hex.

■ **Snips.** For miscellaneous panel and flashing cutting requirements. Three pairs will be required for left edge, right edge and centerline cuts.

■ **Electrical metal shears.** Used for general metal cutting, such as at the hips and valleys. Some installers prefer to use circular power saws with metal cutting abrasive blades. While the use of power saws may be faster, they do have some disadvantages.

■ **Chalk line.** Assist in the alignment of panels, flashings, etc.

■ **Neoprene mastic tape.** 1/16" x 1/4" roll of tape used for installation of inside and outside profile closures and panel side laps.

■ **Butyl mastic tape.** 1/16" x 1/2" roll of tape used for prevention of water infiltration in flashing to sheet metal applications and panel-to-panel side laps.

■ **Caulk.** Liquid butyl rubber or urethane sealant used to inhibit water infiltration.

■ **Caulking gun.** For miscellaneous caulking and sealing to inhibit water infiltration.

■ **Blind rivet hand tool.** Used for miscellaneous flashing and trim applications.

■ **Marking tools.** Indelible markers, pencils, or scratching tools.

■ **Scratch awl.** Used to mark the steel.

■ **Utility knife.** Used for miscellaneous cutting.

■ **Electric drill.** Used to drill holes such as those required for rivet installation.

■ **String line.** Used for general alignment and measuring.

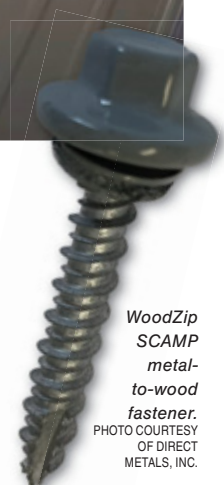


Practicing installation of exposed fastener metal panels and trims. PHOTO COURTESY OF MCELROY METAL


■ **Tape measure:** 25-foot minimum (another 50 feet is helpful).


■ **Locking pliers.** Standard and "duckbill" style for miscellaneous clamping and bending of parts.

Information provided by Jeff Haddock, technical services manager, AEP Span and ASC Building Products, West Sacramento, California. [MR](#)



WoodZip SCAMP metal-to-wood fastener. PHOTO COURTESY OF DIRECT METALS, INC.







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The View From the Rooftop

2023 Mid-Year State of the Industry Report

By Linda Schmid

In the last quarter of the year, predictions were made by many industry and economic experts that 2023 was going to be a let-down after the flurry of construction activity that was 2022. It's time to check on that prediction and see if it holds up under scrutiny and find out how the rest of the year is expected to pan out.

In the Foreground

Many metal roofing insiders see positivity in the industry. Ann Iten, Director of Marketing for Westlake Royal Roofing Solutions, for one, says that the metal roofing industry grows year after year, in part due to the growing demand for products that last a long time.

Renee Ramey, Executive Director of the Metal Roofing Alliance, also comments that the residential roofing market is

strong, although backlogs have softened. She reports continued growth in consumer awareness of the benefits of metal roofing.

However, both Ramey and Iten see some challenges in the market.

“The economy is, and will likely remain, the biggest challenge for everyone in roofing and construction through this year,” commented Iten. “Inflation and interest rates are both still high, and they are making it difficult and more costly for builders when sourcing financing for new construction projects of all types. These same economic conditions are also impacting owners’ abilities to pay for roof retrofits, which obviously

(BELOW) Continued growth of consumer awareness of the benefits of metal roofing contribute to the growth of the residential roofing market. This Sevierville, Tennessee, residence features True Metal Supply's Tuff-Rib metal roofing panels in Burnished Slate, a WeatherXL coating from Sherwin Williams Coil Coatings. Installation is by FLOW Roofing, Knoxville, Tennessee, using Atlas Bolt and Screw's Wood Ultimate® Fasteners. PHOTO COURTESY OF TRUE METAL SUPPLY/FLOW ROOFING.



COVER STORY

impact the business of contractors,” she concluded.

“We are seeing a subsection of the residential market slow a bit due to the economic climate, but certainly that impact has been minor up to this point,” Ramey said.

Ben Johnston, COO of Kapitus, a provider of financing for small and medium sized businesses said, “Higher interest rates are cooling the real estate market across the country, but we continue to see strong credit demand from contractors as a shortage of affordable housing, coupled with low unemployment rates, generate demand for new housing stock.” He also sees homeowners who are locked into lower rate mortgages choosing to stay in their homes rather than selling and repurchasing in a higher rate market. These homeowners are looking to renovate existing housing stock, driving demand for contractors.”

Since spring of 2022, Johnston has seen a tightening in credit, however, which accelerated after the failures of SVB and Signature Banks. As banks become more cautious, many quality applicants, often small businesses, are unable to obtain the financing they need.

Perhaps tighter credit explains why Sean Shields of the Structural Building Components Association (SBCA), sees that single-family housing construction has returned to 2019 (pre-COVID) levels. He notes that many component manufacturers who were in a position to pivot to multi-family projects actually saw an increase early this year as near-record numbers of large projects got underway.

High-end earners who will sometimes move forward with projects regardless of the economic situation have continued to invest in real estate and home improvement.

For many, the slow start to the year is providing the opportunity to retool and retrain.

“Production equipment that has been on backorder for 12 months or more is being delivered and installed,” Shields explained.

“Personnel have to be trained on these new systems, and the current conditions are favorable to getting this new capacity up and running.”

Due to the current slowdown, lumber costs have been relatively low for most grades and sizes. MSR lumber is still

The highlighted data points are from the Shield Wall Media mid-year State of the Industry Survey. For more survey results relevant to the roofing industry, see the Construction Survey Insights published in every edition of Shield Wall Media publications. In this issue, see page 59.

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difficult to source in many areas of the country, though, impacting products such as floor trusses and long span roof trusses.

However, it appears that not all construction niches are equal. Rob Haddock, CEO of S-5!, says that while residential construction has taken a geographically varied hit, other sectors are doing well.

“The commercial/industrial space is still reasonably robust, especially in manufacturing and data center related construction. The agricultural marketplace is on stable ground, pardon the pun,” Haddock said.

“Obviously, the economy has dampened real property commerce because of interest rate increases, but the *uncertainty* of economic stability going forward has played the greatest role in dampening the construction economy,” Haddock said.

Keith Dietzen, CEO of Keymark, said that it’s a bit of a surprise how strong the post frame and roofing industries have remained while interest rates have gone from near zero to the highest in many years.”

He hasn’t seen that the Federal Reserve’s interest rate adjustments have affected business much currently. “My customers all report a very strong book of business,” he said.

On the Horizon

Tom Bowne, Chief Economist for the Freedonia Group (a division of MarketResearch.com, Inc.) has this to say: “We expect that residential construction activity will face a number of headwinds in 2023. As the Federal Reserve maintains its tighter monetary policy in an effort to keep expectations of future inflation from rising, mortgage interest rates will remain elevated, constraining housing demand. Smaller regional banks are likely to be less eager to make construction loans while these banks’ balance sheets are under increased scrutiny. That tighter lending environment will weigh on builders’ and contractors’ ability to finance projects.

Later in the year, however, there is a chance that the Federal Reserve may ease monetary policy somewhat, offering some relief for mortgage lending. The other factor that will likely provide a boost to new construction as 2023 progresses, Bowne continued, is the aforementioned lock-in effect of existing homeowners with low mortgage interest rates retaining ownership. The lack of available houses will create new home construction demands for newly formed households.

Shields says that component manufacturers as a group expect the last half of 2023 to pick up. There is concern that many projects will be started within the same time frames, thereby straining supply chains and causing volatility in the lumber and steel markets. Further, hiring and training enough help to service a spike in demand could be problematic.

Component manufacturers advise builders and developers to avoid a ‘wait and see’ attitude, according to Shields. “By the time you realize that a lot of projects are going forward, it’s likely too late to get a good place in line which can lead to many delays such as material or production capacity shortages.”

Ramey agrees that trying to hire more labor all at once to take care of a sudden upsurge in construction work would be difficult; she says that the labor issue continues to be one of the biggest challenges in the construction industry (as well as other industries).

Dietzen concurs that the labor shortage will continue to be problematic. He advises employers to automate as much as they can.

“My best advice to contractors is to automate,” Dietzen stated. One of the most effective ways to address the labor challenge is to use software systems that can automatically generate necessary

information that otherwise would require many hours of toil from team members who are already more than busy.

These concerns may be inapplicable, at least in the short term however, as Johnston warns that the SVB and Signature Bank failures have made everyone more cautious and if interest rates continue to rise, participation by those paying the bills may dissipate. More likely they will continue to build and invest, but they will be looking for price concessions and better overall terms Johnston said.

Johnston’s group sees trouble ahead for the commercial market as remote work becomes a permanent fixture in American life and many long-term leases expire.

Bowne feels the outcome of that trend is uncertain. He put it this way: “Office construction is expected to see below-average activity for a few more years as businesses continue to sort out staffing arrangements (in-person vs. hybrid) and their need for space to handle their personnel.”

He expects that the non-residential construction markets in general may face a bit of a downturn similar to the residential market later this year based on the difficulty in obtaining construction financing.

“Activity in retail building construction will be dampened if consumer confidence and overall economic activity weaken during the middle part of 2023,” Bowne said. ”

However, he did offer some hope for light manufacturing. “Construction of light manufacturing facilities will continue to be aided by efforts to improve supply chains, which could induce some reshoring of manufacturing activity,” he concluded.

Top Challenges Q3-Q4 2023

Here are the top 5 challenges for Q3 and Q4 2023 from Metal Roofing subscribers, as reported in the mid-year SWM Survey:

1. Inflation 63%
2. Cost of Materials 53%
3. Interest Rates 53%
4. Finding Employees 51%
5. Cost of Energy and Transportation 35%

Over-All Advice

What should roofers do going forward?

Mike O’Hara, National Sales Manager at Levi’s Building Components sees continued price fluctuations and believes

COVER STORY

that estimating jobs will continue to challenge many roofers. He advises, “Don’t just bid on projects to keep your crew busy. Know your numbers and take the emotion out of the estimating process. Then, be all-in on projects, as the best advertising is word of mouth and repeat customers.”

Ramey said, “We anticipate the importance of environmentally friendly building materials will continue to drive the market toward products that are sustainable, offer longevity, and provide benefits in the extreme weather conditions we continue to see happening throughout the U.S. and Canada.

Iten is like-minded. She says, “We are monitoring the increased visibility around energy efficiency and total cost of ownership. We are also watching any shifts in code compliance relative to climate conditions and regions as well as insurance criteria surrounding product performance. These currently vary market to market.”

Roofers would do well to ensure that the roofing solutions they select can stand up to severe weather events that, Iten warns, are not going away.

Increased interest in energy efficiency makes a good case

for Haddock’s advice. He says builders/contractors should be proactive and provide themselves a Plan B in case their usual revenue takes a dip, for example the installation of solar photovoltaic products.

Two trends that Dietzen has observed seem to bode well for the future: More and more roofing contractors are adding metal roofing to their service menu and consumer demand for barndominiums is growing.

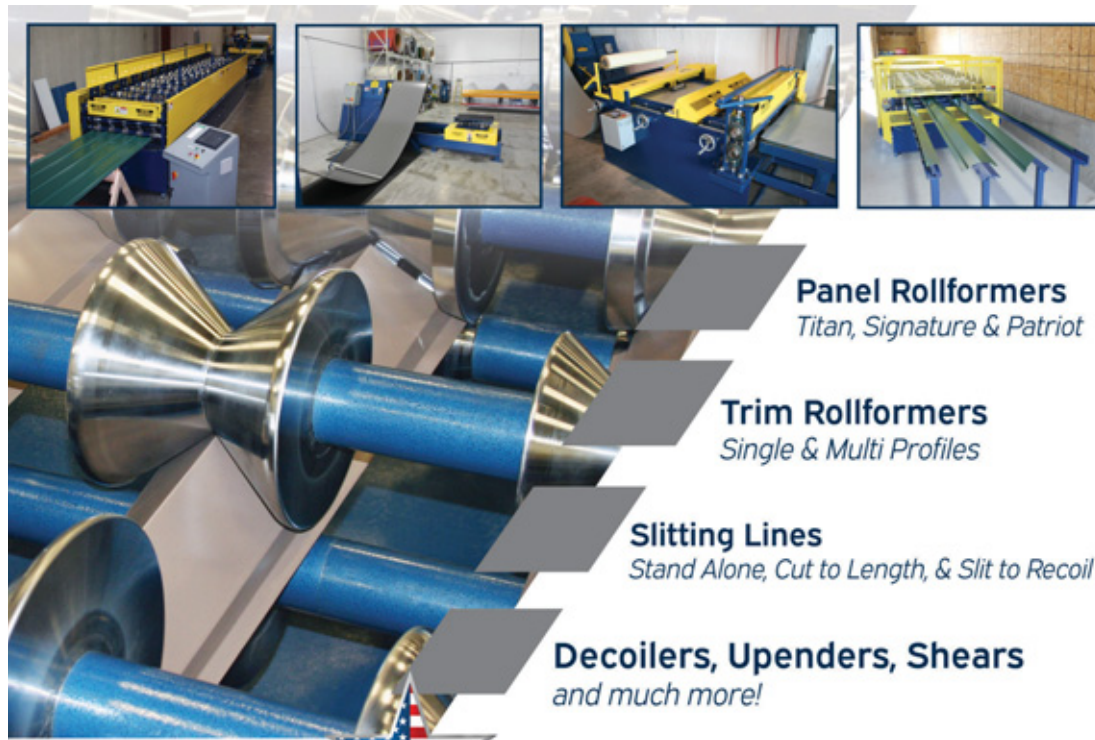
“There is real opportunity in these markets,” Dietzen said.

Perhaps there are more good Plan B options.

A good marketing plan can go a long way to boost your business when the rain sets in.

Ramey provides this marketing advice to builders, contractors, and roofers: “Spend time fine-tuning your in-home sales efforts. Make sure you have financing options available, can provide references that speak to your work, and provide a high level of customer service. Lean on professional organizations, such as the MRA, for assistance in driving awareness in your local market, providing the information homeowners want to see, and highlighting your business quality through third party validation,” she concludes. **MR**

Only 14% of companies reporting “>25% Increased Profitability” in the Shield Wall Media Mid-Year State of the Industry Survey reported Retaining Employees as a problem. The average was 40%.



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Lead Times and Inventory Management

Suppliers Discuss the Post-Pandemic Situation

By Linda Schmid

Everyone in the construction industry, whether builder, contractor, supplier, or manufacturer understands the importance of lead times; no one can successfully accomplish their mission with lead times dragging them down. How are these all-important lead times doing now that the pandemic crisis appears to be a thing of the past? And how are suppliers handling inventory management now?

Industry experts from Hixwood, Pro Cut Metals, and Graber Post discussed their lead times and inventory management with Metal Roofing staff.

Pandemic Woes

Paul Zimmerman, General Manager at Hixwood, said that during the pandemic shut-down, getting supplies was a big problem, more impactful than the transportation shortage. “Components were all behind,” he said, “windows, paint lines, lumber, everything.

“Freight was available if you were willing to pay for it,” he added, “but often supplies weren’t available at any cost.”

Trent Wagler, Marketing Director at Graber Post, said the pandemic period with its extended lead times resembled an obstacle course.

“Basically we found we needed to beef-up our orders to meet demand,” Wagler said. “When ordering, we built in extra supplies to increase our on-hand inventory.”

Post-Pandemic Lead Times

Today, Wagler says, the majority of lead times are back to usual, with a few exceptions. Their supply lines are mainly domestic and most items have lead times within a few weeks. They no longer feel the need to pad their inventory.

The lead times on the post-frame kits Graber sells to their customers can be a couple days. If custom items are required, like custom spec’d trusses, 48” cupolas, custom overhead doors, or other special items, the lead times can be 3-4 weeks. However, if a contractor just needs a few panels and trims, they may have it in a few hours or the next day.

Andre Yoder, President of Pro Cut Metals, says that supply chains are doing pretty well right now. Common color coils can sometimes be difficult to come by, but by planning ahead, you can usually get what you need in reasonable time.

Yoder adds that historically off-shore supplies are cheaper with longer lead times, like a couple months. Domestic supplies have shorter lead times, usually a couple days. Pro Cut Metals supply lines are both domestic and overseas.



PHOTO COURTESY OF GRABER POST

Lead times for the roof kits Pro Cut Metals’ customers order are usually 1-2 days. They manage this quick turn-around time because they have inventory of panels and trims in stock.

“If custom trims or certain colors are required, it can add on to the lead time,” he added.

Zimmerman says their supply chains, all domestic, are working well. He says that since lead times have improved, they are keeping less stock on hand.

“With the contracted lead times, we can get supplies in time to fulfill orders, keeping our lead times down. During the pandemic, a 4-week lead time would have been nothing,” Zimmerman stated. “When government shut down entire states, there was no way supply chains could keep firing on all cylinders. However, if it keeps up the way it has been for the past six months, the industry will be fine.”

Lead times for steel have particularly contracted, and that was one of their biggest problems during the pandemic because of the huge increase in demand, Zimmerman said. Now, steel is in a good place he added.

So what are Hixwood’s lead times like? Zimmerman said the lead times for their customer orders vary from four hours to one week. “Supplies for re-roofing often go out the same day or next day; building packages may take up to a week.”

There is a differential in the lead times that Hixwood’s manufacturers provide them and the lead times they deliver to their customers.

“Lead times for us to receive materials range from one week to three months,” Zimmerman said. Generally, a lot of lumber products take a week, service doors and windows take two weeks, and steel takes about 6-7 weeks. Insulation can take up to a month.”

Post-Pandemic Inventory Management

How do they handle the differential? Zimmerman said they manage with stringent minimum and maximum guidelines, thereby keeping inventory at controlled levels. They use 12 months of rolling averages to determine how much product they need on-hand. When a new customer places an order, they immediately add that into the forecast.

“As soon as packages are ordered, the materials go into a queue and are automatically reordered.”

They also keep unpainted inventory on hand, ready to be painted, to fill the holes in forecasts.

Yoder said, “We have good relationships with our vendors.” “They help us make buying decisions. For example, a vendor will contact us to advise us that a color we use a lot of has come in so we can purchase what we need before it sells out.”

Wagler said, “In order to supply our crews and customers, we keep 30 days’ worth of our standard supplies and biggest movers in stock. Of course, we supply many components; we have a reputation as the builders’ one-stop shop, so some of the less-common items may not be in stock.”

Advice For Roofers & Contractors

Zimmerman advises roofers and contractors who buy from a roll former to simply buy product as they need it; barring “a black swan event” it shouldn’t be necessary to stock up, he said. However, a roofer/roll former may want to work toward a 30 day supply to avoid difficulties in obtaining specific colors when needed.

Yoder doesn’t feel that it’s necessary for roofers and contractors to keep much stock. Storage and inventory management takes time and money that may be better spent elsewhere. Although, he added, it may be helpful to keep some of the accessories that can cause delays on hand.

Whether or not to keep inventory on hand depends entirely on the company, according to Wagler. He says that if you have the cash flow, it makes sense to have 120 to 180 days worth of the supplies that you use a lot of (the “big movers”). He cautions, however, that in order to protect the company from losses, the buyer needs to watch the market and make any big purchases when the price is down. **MR**

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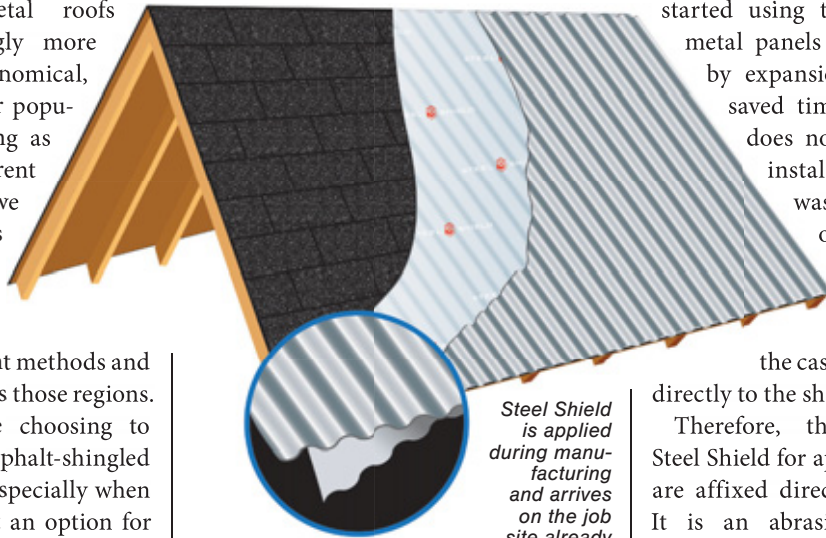
By Dripstop®/Freudenberg

As residential metal roofs become increasingly more practical, more economical, and more attractive, their popularity is naturally growing as well. As we travel to different regions of the country, we see a variety of panel types and profiles on all styles and sizes of homes. We have also learned there are any number of different methods and applications in place across those regions. Several homeowners are choosing to retrofit their existing asphalt-shingled roofs with metal panels, especially when a complete tear-off is not an option for whatever reason.

We have learned there are different approaches to retrofitting as well. Some roofers opt to use wood furring strips to raise the metal up off the asphalt shingles, then screw the metal into those furring strips. There are numerous benefits to this approach, but it usually comes with an additional cost for the materials and labor.

Others choose an even more economical way to install metal, screwing the panel directly through the shingle. However, since metal expands and contracts with temperature changes, the shingles can etch the underside of the metal panel if it's not protected. Historically, roofing paper, felt, synthetics, and even bubble insulation have been tacked down and used as protection for the metal panels.

Steel Shield was created for the specific purpose of protecting the underside of metal roofing panels from abrasion. Freudenberg offers Dripstop®, which is a solution for controlling condensation on



Steel Shield is applied during manufacturing and arrives on the job site already installed.

metal panels. It is a factory-applied felt membrane that captures moisture overnight and is primarily used in uninsulated metal buildings.

One of the unique qualities of Dripstop® is its exceptional durability and wear-and-tear resistance. Because of this, it wasn't long before roofing contractors

started using the product to protect metal panels from scratches caused by expansion and contraction. It saved time and money, since it does not require any labor to install. However, Dripstop® was designed for use on open purlins or trusses, where air movement will evaporate the condensation — not the case when metal is fastened

directly to the shingles. Therefore, the company invented Steel Shield for applications when panels are affixed directly to asphalt shingles. It is an abrasion-protection, factory-installed product that is just as durable as Dripstop®, but is designed to not hold water. Since it also shows up on the jobsite already on the metal and ready to install, there is no labor or time needed for its installation.

When a brand-new roof or complete tear-off is not in the cards, retrofitting an existing shingled roof with metal panels is a great option. **MR**



Testing results demonstrate the abrasion protection offered by Steel Shield. On the left: an unprotected steel plate. Above right, the plate has been protected with SteelShield.

EVENTS CALENDAR

July

July 13-14

Florida Roofing & Sheet Metal Expo (FRSA), Gaylord Palms Resort & Convention Center, Kissimmee, Florida. floridarooft.com

September

Sept. 23-25

Western Roofing Expo, Paris Las Vegas, Las Vegas, Nevada. <https://westernroofingexpo.com/>

Sept. 25-27

National Coil Coating Association Fall Meeting, Pittsburgh Marriott City Center, Pittsburgh, Pennsylvania. www.coilcoating.org

Sept. 27-28

Construction Rollforming Show, Duke Energy Convention Center, Cincinnati, Ohio. www.constructionrollformingshow.com

October

Oct. 4-6

Roofing Contractors Association of Texas (RCAT) Texas Roofing Conference, Marriott Marquis Houston, Houston, Texas. www.rcat.net

Oct. 18-20

METALCON, Las Vegas Convention Center, Las Vegas, Nevada. www.metalcon.com

January 2024

Jan. 24-25, 2024

Garage, Shed & Carport Builder Show, Knoxville Convention Center, Knoxville, Tennessee. <https://garageshedcarportbuilder.com/show-registration/>

February 2024

Feb. 6-8

International Roofing Expo, Las Vegas Convention Center, Las Vegas, Nevada. www.theroofingexpo.com

June 2024

June 19-20

Post-Frame Builders Show, Branson Convention Center, Branson, Missouri. <https://framebuildingnews.com/post-frame-builder-show-registration/> **MR**

Before making travel arrangements, check with the show producer to confirm there have been no changes to event dates, venue, or show hours. To have events included here, contact Karen Knapstein, 715.513.6767, karen@shieldwallmedia.com.

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A Winning Combination

Solar PV on IMP Roofing

From the IMP Alliance of the Metal Construction Association

Metal roofing systems are hands down, the best platform for residential, commercial and industrial rooftop solar photovoltaic systems.

Metal roofing, including insulated metal panels (IMPs), offer a long, industry-leading service life, sustainability, durability and a simplified, cost-effective solar attachment. Combined, these qualities make metal the ideal choice for rooftop solar.

Before delving into the details of integrating solar modules with energy-efficient, highly insulated IMP roofing, a look at the solar market reveals a strong and growing sector.

According to the U.S. Energy Information Administration [<http://bit.ly/3FQjfjS>], more than half of new electric-generating capacity in the U.S. will be solar. Further, approximately a third of solar PV deployment worldwide [<http://bit.ly/3JGxiQx>] are rooftop installations.

In addition to state and local incentives and utility rebates, significant funding from the U.S. Inflation Reduction Act is anticipated to further propel interest in rooftop solar.

The previous Solar Investment Tax Credit has been expanded to offer a 30% tax credit for the installation of photovoltaic systems between 2022 and 2032. In addition, there is a new 40% investment tax credit for solar and wind projects in largely low-income areas, the Energy Investment Tax Credit has been extended for energy property projects focused on solar energy property and the Renewable Electricity Production Tax Credit extends the current tax credit for renewable energy sources.

Doing the Math

One of the first things to determine before installing solar on the roof is making sure the roofing system will outlast the life of the PV system as dismantling the solar modules, re-roofing and re-installing the PV panels are a significant expense, not to mention the possibility of damage. Furthermore, through the course of this re-construction process, the off-line solar system is generating no power for the facility.

In a detailed analysis of metal roofing systems' longevity in a recent Metal Construction Association field/lab study [<https://bit.ly/3LPShDb>], standing seam coated steel was found to offer a service life of 60+ years. This puts metal roofs at more than double the life of almost all roofing systems.

Considering solar PV's average service life of 32 ½ years, according to a Berkeley lab study [<https://bit.ly/3HlbuG>], metal is the only material matching (and exceeding) this level of



After fire damaged the Wursthof facility in New Braunfels, Texas, a new roof was needed fast. Insulated metal panels (IMPs) were specified. IMPs are faster to install than other materials for walls and roofing. PHOTO COURTESY OF NUCOR/METL SPAN.

longevity. This long-term endurance also makes existing IMP roofs a viable candidate for rooftop solar installations.

“The service life is 60 to 70+ years so that window of opportunity it creates to put a solar system on is big. You can literally put solar on a 20- to 25-year-old metal roof and the roof will still outlast the solar system. This is a huge plus in terms of return on investment and the total cost of the lifetime of the solar system,” explains Mark Gies, director of solar business, S-5!, in a Rail-less Solar on Metal Roofs CEU webinar [<http://bit.ly/3FLefUb>].

While insulated metal roofing panels carry a higher first cost than some other roofing systems, it's important to evaluate the roof and solar system together as a single asset, explains Bob Zabcik, P.E., LEED AP, technical director for the Metal Construction Association. Because there is less labor and material involved in installing solar on a metal roof, the combined total costs come out to be less expensive.

In a sample total lifecycle cost evaluation in a recent METALCON Live! Metal Takes on Solar [<https://bit.ly/3JATnA4>] CEU presentation, he said, “when you add in the cost of replacing the TPO (Single Ply Membrane) roof after 15 years, it really becomes a no brainer.”

Ease of Installation

While other roofing systems require a labor-intensive, rail system installation for PV attachment, IMPs and other metal roofing systems offer the advantage of a rail-free solar



According to a recent MCA study, coated standing seam roofing systems have a service life of 60+ years, which is far longer than the average PV array service life of 32 1/2 years. CFR roof panels installed in the Finley Center, part of the Hoover Met Complex, Hoover, Alabama. PHOTO COURTESY OF NUCOR/METL SPAN.

attachment. This is made possible by the structural ribs/seams inherent in the exterior metal skin. This direct attachment simplifies installation with fewer components, the elimination of things like flashing and ballasts and ultimately less weight on the roof.

To better quantify this, S-5! conducted a cost comparison

of rail vs. rail-less solar attachment. For rail-less metal, their study calculated a 42% reduction in mounting materials, a 30% decrease in labor costs and an installation time and a shipping cost reduction of 61% for a total installed cost savings of 38%.

Another advantage of IMP attachment is the availability of rails vary 12 feet, on average. By spreading out the points of attachment, this supports a more uniform distribution of the structural load, with no penetrations and a better preservation of the roof's integrity.

To assist roofing contractors with this process, MCA provides a Metal System Project Checklist on page 10 of the Metal Roofing and Solar PV System Part 3 – Mounting System Installation [<http://bit.ly/3lGo3YI>] white paper.

The Best Choice


Ultimately, the many benefits of solar on IMPs make the combination of the two systems an ideal sustainable, energy efficient and cost-effective combination. Throw in the fact that metal roofing offers an 85% recycle rate, and it's hard to get greener than this.

For more information, see MCA's three-part series on metal roofing and solar PV [bit.ly/3Ze5dWC]. **MR**




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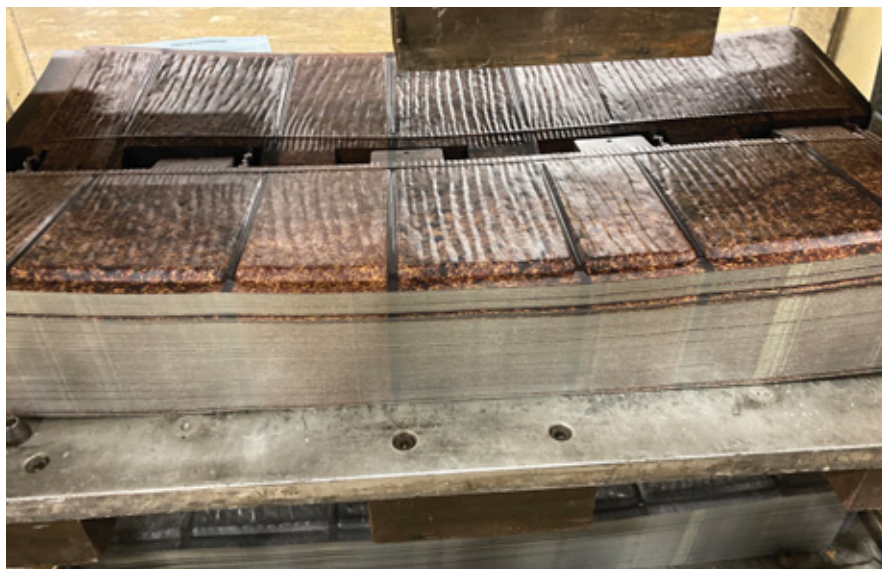


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Coil arrives pre-painted, sometime with a special effect as shown on the left, through the stamping press to create the final 3-D shingle. Photos by Sharon Thatcher

Metal Shingles

A closer look at the manufacturing process and market opportunities

By Sharon Thatcher

One of the most intriguing types of metal roofing isn't roll-formed but is a product you may wish to include in your consumer supply chain. Metal shingles, stamped for a true 3-D effect, is a niche within the metal roofing industry that turns consumer heads and minds. If you are a roofing contractor, or a one-stop roll-forming shop, it can be a good companion to your existing offerings while helping to expand the overall metal roofing industry.

One of the few companies in North America to successfully navigate in the metal shingle niche is Isaiah Industries based in Ohio. Owner Todd Miller explains that he works with roll formers and metal roofing contractors across the country who want to offer as many metal-roofing options they can without an investment in all the equipment. They can do that through dealer/installer partnerships.

Todd said Isaiah Industries currently has about 180 North American dealers/installers and are always looking for more. They also work with distributors.

Metal shingles, made on huge stamping presses with multiple stage transfer tooling with pressing power of 150- to 800-ton capacity, are not difficult to install, but as with any roofing product can be tricky when trimmed for nontraditional roofs. Consumers who opt for high-end metal shingles are often the



An up-close look at the design plates the coil is sent through during the stamping process.

owners of larger homes with nontraditional roofs. "An upper-end house tends to have a crazy roof," he noted. Training is essential.

"We are so big on training dealers to be successful," he said. "If our dealers aren't successful, we're not successful — we don't sell squat — so we have to make sure we've got the support and the training to make those dealers successful."



Isaiah Industries has a loyal staff of many long-time workers. Here, one of them makes tooling adjustments for proper production.

Training includes instruction in how to market metal shingles and generate leads, how to sell metal shingles, and how to install metal shingles. Todd said the installation facet is helpful even to someone not planning to do the actual installation work “because we find that a guy can sell better if they know how to install it,” he said.

About 18 years ago they opened their one and only factory-direct store in Louisville, Kentucky — Classic Metal Roofing Systems of Kentuckiana – where they sell and install their products to serve Kentucky, Southern Indiana, and Ohio. Except for this location, they rely on trained independent contractors.

Learning goes both ways as Todd said the Louisville operation continues to allow an up-close look at what contractors experience in installing their products. “It is a place where we could get our feet wet and get our hands dirty and do what we teach people to do,” he said. In fact, after a strong windstorm blew through the Louisville area this past February, ripping off roofs, Todd better understands the challenges for dealers in handling this sudden influx of opportunity, “...suddenly you’ve got 10 times more interest in your product than you’re used to, so how do you scale up to that?”

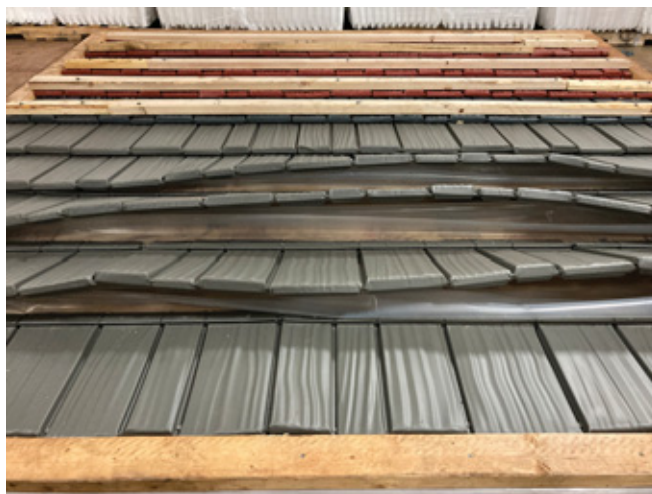
About 250 people go through their training each year, some at the Louisville location, some at the Piqua, Ohio headquarters, and others on the jobsite.

“One of the things we’re good at is helping contractors sell our product. It’s a fully scripted presentation, and once they know how to use that presentation, their closing rates are quite high.”

In addition to metal shingles, dealers can sell the underlayment, Roof Aqua Guard, which Isaiah Industries acquired several years ago.

Selling shingles

If you want to find a product that sells better when other building materials aren’t, metal shingles is not a bad option. Todd has found that metal shingles sell best when residential



Isaiah Industries uses third-party testing for quality standards but also conducts its own. Here, panels were sent through wind uplift testing to reach the moment of failure.



Owner Todd Miller holds a finished panel of Rustic Shingle.



From the Rustic Shingle line.

CLOSER LOOK

sales are down, such as during COVID. When residential got hot in 2021-22, they experienced fewer inquiries. “We started to see a little downturn, because people were saying, well, I want to sell this home, so why put an expensive roof on it?”

Recently, the market has turned again. “Now that home values are down and interest rates are back up, that’s good for us. It means people are tending to stay where they’re at, and investing where they’re at... Our target customer is really someone who plans to stay in their house 10-15 years or more.”

Another target are homeowners who don’t like the looks of a vertical metal roof, but are attracted to its benefits (durability, wind resistance, energy efficiency).

“If the homeowner doesn’t like the way it looks on their house, they’re not going to buy it. ... we’re kind of looking for that customer who says, ‘I’ve heard a lot about this metal roofing, but man, I don’t think that’s going to look good on my house’, Todd said, adding: “You can go out and tout the benefits of metal roofing all day, but if that homeowner can’t envision a vertical roof on their house, a metal shingle can make a lot of sense.”

Adam Clark, part-owner of True Metal Supply, Knoxville, Tennessee, has seen this in practice. His company roll forms standing seam and tuff-rib through-fastened panels, but he attends home and garden shows in his territory and has discovered that a metal shingle display attracts attention to his booth. Although those visitors may never opt for the pricier metal shingle, he likes helping to educate consumers and having that as an option for the occasional buyer.

As Clark is quoted in an article in *Rollforming Magazine*: “People are shocked to see that metal is available in more than just a linear panel. It’s a premium product ... so I think the price for the majority of our customers makes that a less feasible option, but it’s a great segue into explaining the through-fastened panel system, then they can make a decision based on their own budget, their own preferences.”

True Metal offers two of Isaiah Industries’ steel shingles: The Great American Shake which has a more three-dimensional wood shake appearance, and Centura Steel Shingle that feigns the look of an asphalt shingle.

“Isaiah Industries has done a really good job of developing a four-way locking system. It has a J channel on all sides, so you don’t have to treat the roof any different than you would with a standing seam system. That’s why we chose to go with Isaiah,” Adam said. “There are some systems out there that require extra waterproofing under the shingles, and that only adds to the overall cost.”

Coatings and warranties

Isaiah Industries uses long-lasting Kynar coatings. Sherwin Williams is the paint used for its rust-resistant aluminum lines popular in salty environments, and PPG paint for its steel product lines. This comes with a 40-year transferrable warranty, yet a longer life expectancy is a realistic expectation. “I tell people that after 50 years the paint might be dulled down, but just paint



An employee preps a shipping crate for an order of steel standing seam.



Isaiah Industries attends local shows to help their dealer/distributors sell metal shingles. This display shows the process of installation.

it. You don’t have to replace it,” Todd said. His own home is topped with the Country Manor Shake panel now 27 years old, “and it still looks like new” he said. “I think I could put a new panel up there beside it, and you would be hard pressed to tell which one is new.”

Isaiah Industries offers 13 primary roofing products. Slate is the hottest look currently. “For years our trademark was the shake look, but we’re definitely now seeing a trend towards the slate look.” They are the only U.S. company to offer an aluminum option.

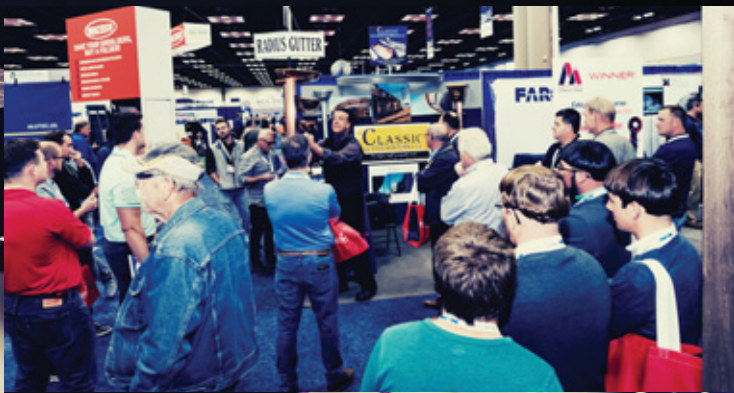
History

Isaiah Industries was founded by Todd’s father, Donald E. Miller. Raised on a farm in Ohio, Donald left to study mechanical engineering. It was at Stolle Corporation (later a division of ALCOA) in Sidney, Ohio, where he developed high speed stamping and deep drawing equipment for the original two-piece aluminum beverage can.

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This cupola shows off the color possibilities of the KastleWood Shingle product line.

About eight years later, in 1980, he formed Classic Products, Inc. It was later renamed Isaiah Industries after the prophet of God to keep the company's mission centered on the promise to be "just and fair to all" and to "do what is right and good."

Originally, the company was established to manufacture vinyl siding, but that same year two aluminum shingle products created by Kaiser Aluminum came up for sale. Classic Products acquired those lines and started their journey in the world of stamped metal roofing.

The two aluminum shingle lines acquired were Rustic Shake (best known to top such establishments as Pizza Hut, Dairy Queen, 7-Eleven and International House of Pancakes) and, Rough Shingle (think Toys R Us, Dunkin Donuts and TCBY Yogurt). These lines are still operating, though now joined by many lines targeted specifically to the residential market, which is now their primary focus.

Competition

Other companies in the stamped metal roofing industry have come and gone, while Isaiah Industries has remained, at times



A show piece with a Slate Rock Oxford Shingle.

acquiring previous competitors when becoming available.

The word "competitors," however, is a misnomer, Todd said. Metal shingles, while growing in popularity is still a small world within the still-small market of metal roofing. Competitors — be they manufacturing metal shingles or roll-formed panels — have become friends in their shared effort to educate consumers to metal options. "The funny thing is we're all friends," he said. What has made it fun from a manufacturing standpoint is that you have all these small- to mid-size businesses that to some degree can work together because we're not each other's competition. I think we all have come to the healthy realization that our competition is not each other, it's asphalt shingles."

Additional competition for metal shingles? A new car, Todd said. "Our roof is going to cost about the same as what that homeowner would buy for a new car. Our competition is getting them convinced they can put off that new car buy and invest in a new roof instead."

He credits two organizations for contributing to the growth of metal roofing in recent years: the Metal Construction Association (MCA) and Metal Roofing Alliance (MRA). Despite the success, much work remains to be done. "Asphalt shingles still control 80% of the market," he notes. "We have taken market share from slate, from wood shakes, and from tile, but our market share hasn't come yet from asphalt. So, that opportunity is still the greatest opportunity; if we can't figure out how to do that, we're going to cap out at 20% market share."

Isaiah Industries operates in all 50 U.S. states, plus Canada. Their international business is particularly well received in Japan and the Caribbean. Todd cites seismic instability as a major reason. "They have a lot of earthquakes. Historically they have used a lot of heavy tile roofing. Well, heavy tile is not something you want over your head in an earthquake." **MR**

Sharon Thatcher is the former managing editor of *Rollforming Magazine*. She is now an independent writer living in Ohio.

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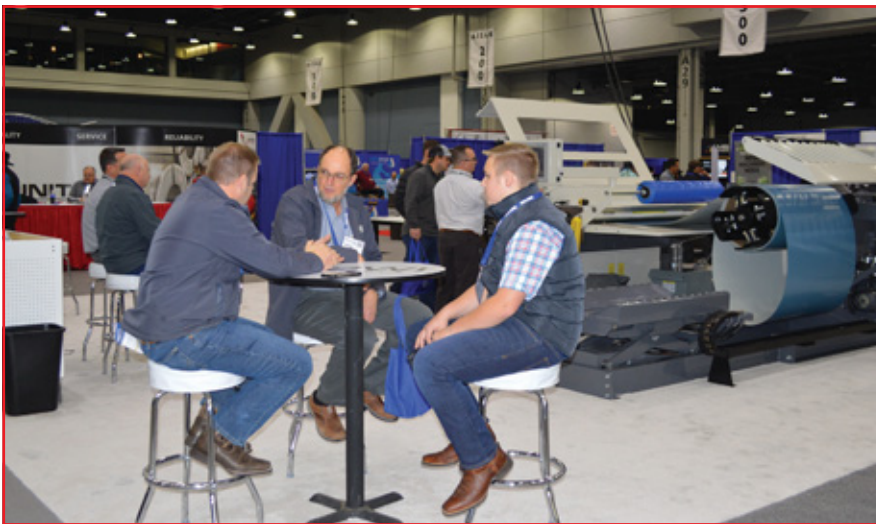
Get the Information You Need at the

Construction Rollforming Show 2023

Speak With Metal-forming Industry Insiders
Sept. 27-28 in Cincinnati



PHOTOS BY SHIELD WALL MEDIA STAFF UNLESS OTHERWISE INDICATED.



By Metal Roofing Staff

The fourth installment of the Construction Rollforming Show is heading back to Cincinnati in September. Slated for Wednesday and Thursday, September 27-28, at the Duke Energy Convention Center, the event will once again provide attendees with opportunities to speak directly with the suppliers and manufacturers that help roll formers not only get the job done, but help make their businesses more profitable and more successful.

The Construction Rollforming Show isn't a show for contractors; there won't be any "cash and carry" bargains. Show developer Gary Reichert explains, "The Construction Rollforming Show is designed for small roll formers – not small contractors. If you need to learn about metal forming or speak directly with manufacturers who sell in pallet, container or truck-load lots, this show is for you."

It is also the perfect opportunity for anyone who is considering making the transition to manufacturing their own metal

trims, gutters, roof and wall panels – perhaps in order to create their own post-frame building kits. Attendees can learn what it takes to get started and how you can be competitive and successful in this essential industry.

The CRS is an event that was developed specifically for construction metal formers. Attendee registration includes all-access to educational sessions, exhibits, a complimentary social hour, and one-on-one conversations with industry insiders.

Educational sessions will be held both days of the show. Topics include, but are not limited to:

- maintaining and maximizing the efficiency of equipment
- best manufacturing and business practices
- coil quality and variation
- selecting the right equipment for your needs, and
- what is coming next in the construction metal forming industry.

For example, Rob Bowlin, AmeriPak, will lead a session on preparing metal panels so they won't be damaged during shipping, while Frank Schiene of Metal Rollforming Systems will

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ROLLFORMING SHOW PREVIEW



teach about roll-forming machine maintenance. All sessions are allotted enough time for question and answer sessions following the presentations.

The educational sessions also include general business topics. Randy Chaffee, Source One Marketing, who has more than four decades of successful sales experience, will be leading a session each day of the show; he will present “Making the Right Buying Decisions” and “Growing Opportunities.” Chaffee will also be recording his popular “Building Wins” podcast at the show.

In addition to educational sessions, as of this early writing, more than 50 suppliers and manufacturers are confirmed to exhibit, and the show expects to sell out floor space before the end of June. Attendees can speak one-on-one with coil and fastener suppliers, equipment manufacturers, component manufacturers, and more, which means you’ll get all the information you need to make informed decisions.

Metal-forming machines will be on display on the expo floor; some will even be demonstrating operation. Hershey’s Metal Meister, SWI Machinery, and Formwright (New Tech Machinery) will all have equipment set up for up-close inspection. Star 1 Products will also be performing demonstrations of its felt applicator.

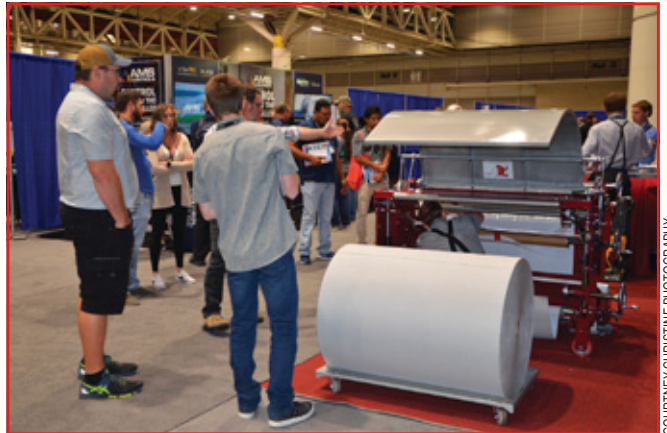
If you form light gauge metal used in post-frame construction, metal buildings, carports, metal roofs or gutters – or you are looking to get into metal forming – you can’t afford to miss the 2023 Construction Rollforming Show. Learn more and watch for updates at constructionrollformingshow.com.

Show Hours & Location

The Construction Rollforming Show expo floor will be open from 12:30-5:30 p.m. Wednesday, September 27 and 8:30 a.m.-12:30 p.m. Thursday, September 28. Educational sessions will be held from 9 a.m.-4 p.m. Wednesday and 9-11 a.m. Thursday. The schedule will allow attendees to get the most out of your attendance.

Attendee preregistration costs just \$50 and covers everything the show has to offer, including access to the expo floor and entry to all educational sessions. (The cost at the door is \$75, but still includes access to all show features.)

WWW.READMETALROOFING.COM



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Questions about the Construction Rollforming Show can be directed to Missy Beyer, Shield Wall Media Director of Shows. She can be reached at missy@shieldwallmedia.com or 920-216-3007.

The official Construction Rollforming Show host hotel is once again the Hilton Cincinnati Netherland Plaza (35 W Fifth St., Cincinnati), which is conveniently located across the street from the Duke Energy Convention Center. The street address of the Duke Energy Convention Center is 525 Elm St., Cincinnati, OH 45202. **MR**



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This article was originally published in the April/May 2004 edition of Metal Roofing Magazine.

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.

This article by then-editor Jim Austin investigates cool roof coatings. As you read through the article, you may think to yourself “Things have changed a lot!”

Care to comment? Contact Karen Knapstein at karen@shieldwallmedia.com, 715-513-6767, or snail-mail to: MR Letter to the Editor, PO Box 255, Iola WI 54945.



Copper Penny is one of the cool colors offered on Petersen Aluminum panels. The coatings on these snap-lock standing seam panels help make Bowie Towne Center a more energy efficient building. PETERSEN ALUMINUM PHOTO

Warming Up To Cool Metal

By Jim Austin

Everyone wants to be cool. The first step to becoming cool is understanding cool.

In the metal roofing industry, there has been plenty of discussion about manufacturing cool products. Many manufacturers have become cool, but what does a cool metal roofing system mean to contractors and consumers? There are complicated formulas and technical terms like reflectivity and emissivity, but totally understanding those may be too much to ask, even if the payoff is becoming cool.

So let's try to simplify it. First of all, the No. 1 incentive for any building owner to install a cool roof is to reduce energy costs during the air conditioning season. The “coolness” of a roofing system is measured by reflectivity and

emissivity. Reflectivity measures how much sunlight is reflected off the roof. The more reflective the roof is, the less heat is transferred into a building.

For residential applications, there are basically two numbers to be concerned with when it comes to reflectivity. A steep slope roof (greater than 2:12) must have an initial solar reflectance of greater than .25, and a solar reflectance of greater than .15 after three years to meet Energy Star requirements. Energy Star is a government-sponsored program designed to help consumers protect the environment through the use of energy efficient products.

Emissivity measures the ability for radiant heat to leave the surface of an object, the higher the better when trying to keep a building cool. A roof with low emissivity absorbs and stores heat, releasing it slowly into the building — even

after the sun goes down — and making it more costly to cool. Energy Star does not currently include emissivity as part of its program. According to the Cool Metal Roofing Coalition, an association of associations convened to promote cool metal roofing's benefits, "this follows the logic of Oak Ridge National Laboratory that the desired radiation properties for a roof should be based on an analysis of the local situation, rather than on the generality that 'high reflectivity, high emissivity' is good for everyone, everywhere. With the variations achievable with metal roofing, properties can be 'tailored' to make economic, energy-efficient sense for the specific location."

With the introduction of reflective pigments, metal roofing systems picked up another selling point — increased energy efficiency in a wider variety of colors. Manufacturers are no longer limited to white or the lightest colors if a cool roof is desired. Reflective pigments have provided manufacturers with the ability to produce a roof in almost any color that meets the Energy Star standard for reflectivity.

Energy cost savings

We've established that a cool metal roof is energy efficient and therefore saves the building owner money. That's cool. What's also cool is that by using less energy, there is less strain on the environment. It's estimated that one-sixth of all electricity used in the U.S. is for air conditioning. In some climates, depending on building size, cool metal roofing products could reduce a building's peak cooling demand as much as 15 percent, and reduce energy bills by as much as 50 percent.

Then there is the urban heat island effect. Urban areas, where trees and grass are replaced with buildings and roads, tend to have higher temperatures because buildings and roads have a lower emissivity. These heat islands also include heat-producing activities like transportation and industrial equipment.

Black surfaces, such as roofs, in the sun can become up to 70 degrees warmer than the most reflective white surfaces. Combining all these factors with the heat collected by the roof and transferred inside creates an increased demand for

Cool Coatings Today

Coatings — and how they are perceived — have changed considerably over the last two decades. We asked those who participated in the original article to comment on cool coatings in today's market. Here's what Todd Miller of Isaiah Industries has to say:

Q How prevalent are cool-roof coatings in today's metal roofing market?

A I would estimate that at least 80% of the PVDF coatings utilize reflective pigments. I believe they are still pretty non-existent in other paint chemistries.

Q Are reflective coatings more popular in some regions than others? If so, please explain.

A I would say that they have almost become a "given" when someone is buying a higher end or "investment grade" metal roof. They are then less common in the more "entry level" metal roofs. The highest energy efficiency possible is something people expect when they invest in a metal roof for their home.

Q In your opinion, when did heat-reflective coatings really catch on? Why?

A I would say about 15 years ago. The cost differential for them had sort of been "absorbed" by the coatings producers so they became more the norm. I do think the federal tax credit that was in place for many years which pretty much required a very light colored metal roof or one that utilized reflective pigments also was a driving factor. It created a talking point and something that property owners would ask about and make sure they could be a part of.

Q What do you see in the future of "cool coatings"?

A I'd love to see even higher levels of reflectivity be possible in dark colors. We have seen some incremental movement that direction. Hopefully the future holds more.

Q What else would you like to add?

A So, much of the research right now in terms of energy efficient building envelopes pertains to thermal breaks. With thermal breaks, you create airspaces that stop the conduction of heat through the structural envelope. There was a study done by Florida Solar Energy Center that revealed greater energy efficiency from a brown metal roof that included a thermal break than from a highly reflective white metal roof without the thermal break. Thermal breaks can be achieved through how the roof is installed but they are also integrated into some metal roofing products such as metal shingles.

I also believe that the low thermal mass of metal compared to other roofing materials is going to get increasing attention in regards to energy efficiency. Anytime you have a roofing material that quickly sheds gained heat once the sun goes down or behind a cloud or even when a gentle breeze blows, you have something superior to a product that gains heat and holds it, radiating it into the structure even into the nighttime hours. Tile, asphalt, and even polymer based products hold and radiate heat for longer than metal products. ■

Cool Roof Energy Initiatives and Criteria

Initiative	Reflectance		Emittance	
	Initial	3-Year		
Energy Star Program	Low slope roofs	0.65	0.50	n/a
	Steep slope roofs	0.25	0.15	n/a
Calif. Energy Commission Cool Savings Program		0.65	n/a	0.80
Calif. Energy Code — Title 24		0.70	n/a	0.75
San Jose Cool Roof Incentive Program		0.65	n/a	0.80
Georgia Energy Code		0.70	n/a	0.75
Florida Energy Code	Residential	0.65	n/a	0.80
	Commercial	0.70	n/a	0.75
ASHRAE — 90.1 Commercial Buildings		0.70	n/a	0.75
LEED		0.65	0.50	0.90
Chicago Energy Code	Low slope roofs	0.65	0.50	n/a (.4 metal coating)
	Steep slope roofs	0.15	0.15	

SOURCE: COOL METAL ROOFING COALITION

FLASHBACK 2004

air conditioning. Roofs with low emissivity heat the air around them, adding to the heat island effect.

Changing one asphalt roof to metal isn't going to make a big difference, but it helps.

Getting the word out

The advantages of cool, like the advantages of metal, are still fueled by potential and both can only get bigger.

"It's growing," says Bob Scichili, business development manager of BASF, producer of Ultra-Cool reflective coatings. "In my mind, it's a smoldering flame that's getting ready to burst through. What fuels it is its availability."

Scichili says the three driving forces in the market are government at local, state, and federal levels, the Department of Energy, and the Green Building Council's LEED program. Also a factor is California's Title 24, the state's Energy Efficiency Standards for Residential and Nonresidential Buildings.



A Rustic Shingle aluminum shake was selected for this fire department in Piqua, Ohio. It features reflective coatings, called Hi-R Finish by Classic Products. CLASSIC PRODUCTS PHOTO

"It's going to spread across the country," he says. "Increasingly, in the southern states and western states predominantly, manufacturers have a complete offering for architects or anyone making design decisions. That goes from white, which is not desirable, especially for steep slope, to black, and they meet the Energy Star and Green Building reflectivity requirements."

Scichili calls it "design freedom."

Marty Hastings of Valspar believes the development of environmentally conscious codes will educate homeowners and building owners. He says power companies are helping educate as well. Electric companies offer rebates or incentives for cool roofing in an effort to keep their plants running more efficiently by reducing peak demand. "They don't want more power plants built," Hastings says. "They want to use the current plants more efficiently."

Renee Baker, marketing manager for Steelscape, believes the industry is doing a good job of promoting metal roofing as a cool product. "The various trade associations do a great job getting the word out," says Baker. "Still, it's been slow and it's got to fall back on the manufacturers to get the information out there."

In Tucson, Ariz., air conditioners are standard equipment because everybody wants to stay cool. Still, cool metal is a hard sell, partly because the word hasn't reached everyone — yet.

"No one has asked me about (cool roofing)," says Tucson roofer Phil Kimmel. "It really doesn't seem to be a big concern. We've always promoted metal as better

because it's not a heat sink like asphalt is."

Kimmel explains to customers that homes with asphalt roofs soak up summer heat all day — so homes would be hotter at 8 p.m. than they were during peak sunlight hours. He said for years, he advised consumers to install a white roof to keep their homes cooler.

"But nobody wanted it," he says. "When I sell a metal roof, more than anything else, it's because of the color."

A cool roof in a cold climate may not always be the best thing. A roof that absorbs heat and passes it into the house during the winter sounds like a good thing — and it is. Those benefits are easily outweighed by the drawbacks, taking into consideration the shorter daylight hours and the lower angle of the sunlight hitting those roofs. Also, many of these roofs are covered by snow.



The Parker River Wildlife Refuge in north-east Massachusetts will open to visitors this summer. The roof is an Energy Star-compliant profile from Englert. ENGLERT PHOTO

It's also easy to see that because climates vary so greatly across the U.S. and Canada, codes to determine the reflectivity and emissivity requirements will more than likely come on the local level. Opponents to California's Title 24 point to the many different climates within that state alone.

What's the holdup?

The metal roofing industry can do two things — educate or wait for the market to become educated on cool roofing benefits. Where does that market push come from?

"I don't know if there is a driving force yet," says Tony Chiovare, president at Custom-Bilt Metals. "It's still in

Englert Update ...

Jonathan Giacchi, B2B Marketing Manager, Englert, has this to say about "cool coatings" in today's metal roofing market:

Q: How prevalent are cool-roof coatings in today's metal roofing market?

A: Very prevalent amongst upper tier metal companies... some less expensive alternatives like SMP painted coil is also a growing value segment.

Q: Are reflective coatings more popular in some regions than others? If so, please explain.

A: Yes, Kynar is more popular in areas where branding/marketing efforts have been successful to educate customer the difference. Lesser quality paints are more popular in more price sensitive markets.

Q: In your opinion, when did heat-reflective coatings really catch on?

A: Early '90s with the backing of Energy Star program and tax credits (not currently in effect). Why? Marketing efforts by companies offering it and associations like MCA.

Q: What do you see is in the future of "cool coatings"?

A: Kynar continues to be the leader in "cool roofing" segment. ■

its infancy. You wonder who you can get to pay attention; it's getting the right audience to really care. People aren't really looking for it, but they're embracing it when it's presented in the right way. It's too simple, people look right through it."

In a recent conversation with a paint supplier, Chiovare said he was a little surprised by the response when he asked about obtaining a product similar to one he was getting from another supplier.

"He came right out and told me, 'That cool metal roofing really hasn't caught on back here in the East,'" he said.

Chiovare says people inquiring about a metal roof are probably already aware of all the environmental benefits. "It makes a difference to homeowners, especially with a metal roof," he says. "People who

have committed to buying a metal roof are intelligent people. They find out a lot of things on their own ... energy savings, environmental issues, heat islands. My guys are out there promoting it every day. The roofing contractor just wants to know, 'What's my price? What's my price? What's my price?'"

The difference in the cost of the reflective pigments and the older pigments is almost non-existent. "It's not a big difference," Chiovare says. "When you see the numbers, why wouldn't you buy it?"

Custom-Bilt is one of a number of metal roofing manufacturers that have made the switch to reflective coatings, along with companies like Englert, Classic Products, Follansbee Steel, Petersen Aluminum, and others.

Classic president Todd Miller believes his company has benefited from making the switch to reflective pigments.

"We completely switched over to the reflective pigment, so I don't have a real good handle on what everyone's asking for, it's everything we sell," Miller says. "That being said, our sales were up substantially last year, part of that is probably from that extra value to sell. Can I say people are calling us up all the time and asking for it? No, but I can say we get a couple a week to check and see if we offer reflective pigments. So they've heard about it.

"Most people don't care about the environment unless there's some economic incentive to care, like a tax credit, but even then, you're not going to see a mad dash."

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Most in the industry admit metal's ability to be cool hasn't generated the same thrill among consumers it has within the industry.

"There was a lot of interest and excitement initially," Hastings says. "I remember at the time when reflective pigments were new someone said to me, if nothing else, it gives us something new to sell, and I think that was a pretty level-headed approach. I think if you pin the butterfly to the pad, the butterfly will tell you not as much has sold as people first thought it would."

Architects are cool

One segment of the industry that has grasped and embraced the move to cool roofing is architects. Architects and other design professionals are acutely aware of programs facilitating the design of energy-efficient buildings, like Energy Star and Leadership in Energy and Environmental Design.

"I think it's a word everybody loves to hear, especially architects," says Ed Thomas, vice president and general manager of Follansbee. "When I'm giving a seminar for architects and I use words like 'cool,' or 'a solar reflectivity of .25 or greater,' it sparks an interest."

Metal roofing manufacturers have grabbed the ear of the architectural community. Architects often design with the environment in mind.

"Architects like to talk about two things: Energy Star and Green Buildings," says Kevin Corcoran, vice president of sales and marketing at Englert. "So the demand is coming from the design community. They know about Energy Star and they know about LEEDs and incentives with LEEDs."

Corcoran also believes interest from the consumer will grow, because of a natural concern for the environment.

"It's a hot issue politically," he says. "Any survey you see out there, people are concerned about terrorism and the economy, but one of the top two or three is always the environment."

Corcoran, whose company's products

are all Energy Star compliant, believes the demand from the design community will continue to drive the market for cool roofing, specifically cool metal roofing.

"I wouldn't be surprised if, in two or three years, it's written right into the specifications, to have it meet the reflective requirements of Energy Star," he says.

Considering cost isn't really a factor, the industry may make the switch to be

cool on its own, without the push from codes. "It's going to be a no-brainer," says Miller. "It's a matter of time before everyone switches over 100 percent (to reflective pigments). There's no reason not to."

Says Scichili: "The education process is critical and it's just beginning. What we need are apostles out there, spreading the gospel, if you will."

Amen. **MR**

PPG Says ...

Gary Edgar is the Architectural Specification Manager for PPG's Building Products, which includes factory applied Duranar and Corafon Fluoropolymer Liquid and Powder, along with ADS field applied coatings. He has been with PPG for more than 25 years, with 17 years devoted exclusively to PPG's Air-Dry Fluoropolymer and BRP (Build Restore Protect) coating systems. His responsibilities include product recommendations, product training, warranty approval, and is a NACE Certified Coating Inspector.

Here's what he had to say about the current market for cool roof coatings:

Q How prevalent are cool-roof coatings in today's metal roofing market?

A Cool roof coatings are very prevalent with new commercial projects and in areas that have mandated regulations addressing solar reflectivity. On the residential side, appearance, protection, and price tend to be the drivers more than saving energy, although residential consumers are becoming more educated about the overall benefits of cool roofing. I have seen industry estimates and opinions for cool roofing ranging from 4.8 to 5.8% compound annual growth rate (CAGR) over the next 5 years.

Q Are reflective coatings more popular in some regions than others? If so, please explain.

A As one might expect, reflective coatings are more popular in warmer climate zones like the West and South, but even northern cities, such as Chicago and Toronto, have ratified green, reflective roofing codes. As the effects of climate continue to escalate, the benefits will increase across all regions.

Q In your opinion, when did heat-reflective coatings really catch on? Why?

A The science behind cool roof coatings was the result of studies in the early 2000s by Lawrence Berkely and Oak Ridge National Laboratory, as one possible solution to California's rolling blackout crisis. The first commercial metal cool roofing became available in 2001, and as marketing and incentives like Energy Star took hold, public awareness began to grow. By the late 2000s, cool metal roofing was an established energy saving solution for commercial and residential buildings.

Q What do you see is in the future of "cool coatings"?

A The traditional one-color metal roof is classic, but we are seeing more trends surrounding organic or natural aesthetics, such as wood, stone or conventional asphalt shingles. The industry will incorporate the IR pigments into these designs and appearances for energy efficiency, while maintaining a virtually maintenance-free substrate and long service life of metal roofing.

From a sustainability standpoint, we're seeing more activity involving cool wall coatings. A recent study by scientists at the U.S. Department of Energy's Lawrence Berkeley National Laboratory (Berkeley Lab) modeled several different types and ages of homes, retail stores and office buildings in cities across California and the U.S. The found that in many places sunlight-reflecting "cool" exterior walls can save as much or more energy than sunlight-reflecting cool roofs. ■



Gary Edgar, Architectural Specification Manager, PPG



Ian McElroy, President, McElroy Metal

McElroy Metal Transitions To Employee Stock Ownership Plan (ESOP)

In the midst of celebrating its 60th anniversary, McElroy Metal announced the transition to an employee stock ownership plan (ESOP).

Company president Ian McElroy recently shared, “The one constant trait during our 60-year history is the influence and support of employees. Throughout the country, McElroy Metal is blessed to have loyal employees, including many that have dedicated decades of service to the company. As a show of appreciation to those employees, I am proud to announce McElroy Metal has transitioned into an ESOP company. McElroy Metal employees are now employee owners of McElroy Metal.”

McElroy continued, “McElroy Metal customers have also been a critical element to our success. We appreciate their continued support and business and look forward to a bright future together.”

While the ESOP represents a change of ownership, there is no change in management or leadership. Ian McElroy will continue to serve as the president of McElroy Metal.

S-5-University Launches

The inventor of innovative attachment solutions for metal roofs launches its new online educational training program, S-5-University, designed to

educate industry professionals on all things metal roofing.

S-5’s new curriculum was created by husband-and-wife team Shawn and Jessica Haddock, both employed by the family-owned business. Through their interactions with customers and industry professionals, they identified a need for a single trusted source of reliable information. They worked with the company’s team of technical experts to create a series of step-by-step training courses to train individuals and teams from the ground up.

Participants can log in to the program via the company website, select a variety of courses, take brief quizzes at the end of each unit, and earn certificates upon completion.

S-5’s team spent thousands of hours fine-tuning lessons to provide the necessary education for individuals to become experts in choosing snow, solar or utility mounting solutions that are right for their projects, while providing best practices for installation.

“Our goal is to provide our customers and the greater metal roofing industry with all the necessary information and tools—a one-stop-shop to understand all the ‘whys’ gaining insight to make their jobs easier,” said Jessica Haddock, S-5! Marketing Manager.

The first series is focused on solar mounting and metal roofing. With the cost of solar decreasing significantly over the last decade, in addition to new tax incentives introduced in the U.S. and Canada driving the popularity of solar, it became necessary to develop a training tool for installers and crash course for sales professionals.

These in-depth courses will help individuals gain valuable insights into the company’s products, understand the various applications and discover best practices for installation.

Hixwood Adds Coil Sales Rep

Hixwood, an Ambassador Supply company, has added a coil sales representative to its staff. Matthew Wilson has joined the company and



Matthew Wilson, Coil Sales, Hixwood

works from a home base in Pennsylvania. He has more than seven years of metal panel sales experience and now has set his sights on serving the metal coil needs of customers in the Northeast, including Ohio, Kentucky, and Tennessee.

In his new role, Matt says he “plans to grow Hixwood’s presence in the Northeast and help roll forming businesses grow by supplying them with quality coil and accessories.”

He was drawn to Hixwood because of the people. “Everyone I have met at Hixwood prior to and now, since working here, have been amazing! Everyone shares strong similar morals and values. They offer quality products and care about their employees and customers.”

Hixwood’s Paul Zimmerman is happy to have Matt aboard. “We are both fortunate and excited to have Matthew Wilson join our team. Matt brings us great industry experience, positive can-do attitude that will bring our customer service to the next level.”

Matt brings his excitement and an ongoing passion for the industry with him to Hixwood. “We’re involved in a very special industry,” Matt says enthusiastically. “I couldn’t imagine myself in any other industry. The relationships I’ve made over the years will impact my life forever. I love what I do and look forward to each day I get to do it.”



Malco Products Introduces Counterperson of the Year Contest

Malco Products has announced the launch of its Counterperson of the Year Contest.

The company is looking to recognize and celebrate outstanding counter staff at its U.S. wholesale distribution locations who demonstrate the same values that make Malco great: dedication to superior customer service and going above and beyond to ensure contractors have the Malco tools they need to get the job done.

There are great prizes lined up not just for the winner, but for the contractors and distributors who nominate as well:

The winner will receive \$500 cash.

If the winner is nominated by a contractor, the contractor receives \$100 in Malco tools of their choosing, plus the distributor/contractor team will receive lunch!

All qualifying nominees and nominators will receive a Malco golf shirt, hat and product catalog.

Malco is also making it easy for contractors to nominate counter staff, with three options to enter:

- Grab a printed form at your local distributor location and mail it in (PO Box 400, Annandale, MN, 55302)
- Enter online at www.malcoproducts.com/counterperson-of-the-year
- Submit a brief video, which can be emailed or texted to Malco's marketing department at 612-325-1502

or marketing@malcotools.com.

All entries must be received by August 31 and the winner will be announced in October. Please note: This contest is only open to nominees in the United States.



Hixwood Customers Win Free Pallet of Ventco Product

Hixwood customers Anthony and Eugene Weaver have won Ventco's by Lakeside free pallet of product giveaway.

Attendees at the Frame Building Expo in Louisville were able to register for the giveaway during the Expo. Anthony and Eugene visited Ventco's by Lakeside booth to learn about their Engineered Roofing Ventilation System and entered for a chance to win. When notified of their win, Anthony and Eugene selected a pallet of Ventco's ¾" Rib ProfileVent in 20' Roll packages.

"We are thrilled to support the post frame industry through our participation in the NFBA and exhibiting at the annual Expo," said Ben Oskarsson, VP of Sales and Marketing for Ventco by Lakeside.

"The customer is at the center of everything we do. Anthony and Eugene are looking forward to receiving their product from Ventco by Lakeside," said David Martin, Operations Manager for Hixwood.

MFM Wins Manufacturer Excellence Award

MFM Building Products, a manufacturer of a full envelope of waterproofing and weather barrier



Accepting the 2023 EODA Small Manufacturer Excellence Award is (left to right) David Delcoma, MFM Operations Manager, Paul Bratton, MFM Fulfillment Manager, and Tiffany Swigert, Coshocton Port Authority. Photo courtesy of MFM Building Products

products for the building industry, was selected as the 2023 Eastern Ohio Development Alliance (EODA) Small Manufacturer Excellence Award at the EODA Annual Meeting on April 28, 2023.

EODA was formed in 1990 and is a nonpartisan organization that promotes economic development in a 16-county region in Ohio. Part of the award was the recognition of MFM's growth through the company's Expansion Project, numerous industry accolades, and the company's community involvement.

Earlier this year, the company also won the Coshocton Chamber of Commerce 2023 Community Improvement award. MFM Building Products, founded in 1961, is an employee-owned stock option (ESOP) company where the employees take great pride in the quality of their work and are involved in a wide variety of community organizations.

METALCON Introduces Its 2023 Advisory Council

METALCON, the metal construction industry's only global event for metal construction and design products, introduces its 2023 advisory council to help shape the educational programming for the show, ensuring it represents all factions of the metal construction and

design industry and its major attendee groups.

“We are pleased to announce the 2023 METALCON Advisory Council, an esteemed group of industry leaders who are dedicating their time to making the educational programming better than ever,” says Judy Geller, METALCON’s Vice President of Tradeshows.

“Representing all facets of the industry, these volunteers are generous with their time, insights and ideas, helping to ensure that METALCON is a vibrant and relevant educational event that meets the ongoing needs of the industry.”

New council members for 2023:

- Chandler Barden, President, CIDAN Machinery Inc.
- Steven Gaynor, Principal Consultant, Pivoth Corp.
- Judith Kleine, Architect, Judith Kleine Architect, LLC
- Jerry Iselin, Retired, Metal Roof Specialties, Inc.
- Andrew Else, Division Manager, Canadian Metal Buildings
- Alan Scott, Director of Sustainability, Intertek Group plc

Returning council members:

- Art Hance, Founder & President of Hance Construction, Inc., and National President, MBCEA
- Brent A. Schipper, Founding Principal, ASK Studio
- Heidi Ellsworth, Partner, RoofersCoffeeShop & Owner HJE Consulting
- Todd Miller, President, Isaiah Industries, Inc.
- Rich Pontius, VP of Design, Marker, Inc.
- Jeff Irwin, President, JH Irwin Consulting LLC
- Paul Deffenbaugh, Editorial Director, Modern Trade Communications
- Tony Bouquot, General Manager, MBMA & VP at Thomas Associates, Inc.

“We have a solid board of industry leaders comprised of key exhibitors, industry experts, associations and attendees who bring their knowledge and expertise to create new and different programming,” says Geller. “We appreciate their volunteer time and contributions to making METALCON a quality event each year.”

METALCON 2023 takes place Oct. 18-20 at the Las Vegas Convention Center.

Matt Mazzella, Adam Mazzella Named Presidents of Mazzella Companies

Tony Mazzella, CEO of Mazzella Companies, has announced that his sons, Matt Mazzella and Adam Mazzella, have been named Presidents of Mazzella Companies.

Matt Mazzella is now President of Mazzella—including Mazzella’s rigging, engineered products, and service businesses for the overhead lifting and material handling industries.

Adam Mazzella is now President of Sheffield Metals International, a manufacturer and distributor of coated and bare metal products for engineered metal roof and wall systems, and New Tech Machinery, a manufacturer of portable roof panel and gutter machines.

The new structure will accelerate the planned growth for the



Matt Mazzella (left) and Adam Mazzella have been named Presidents of Mazzella Companies.

company and allow Matt and Adam to execute their individual business unit strategies more effectively. Tony Mazzella shared, “We’re committed to staying independent and privately owned and the next step includes Matt and Adam in their new roles to be the drivers of their business units, the strategy, and execution of their overall plan.”

Tony Mazzella will remain CEO of Mazzella Companies and this transition will allow him to focus 100% of his energy towards the execution of Mazzella Companies’ overall strategy, acquisitions, and ensure harmony and culture are maintained throughout the organization as it continues to grow. **MR**

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NEW PRODUCTS

S-5-RC™ Clamp

S-5! has introduced its new S-5-RC™ clamp for attaching a wide range of rooftop accessories to the Riverclack® metal roof profile.

The two-piece design of the S-5-RC interfaces with the rib geometry and creates a mechanical interlock strong enough to mount most rooftop applications with certified holding strength, protecting the roof from corrosion and preserving the metal panels' thermal cycling characteristics.

Ideal for both small- and large-scale industrial, commercial and institutional projects, the clamp can be installed anywhere along the seam for placement flexibility. Installers can utilize the S-5-RC with rails or pair the clamp with the S-5! PVKIT® solar solution for streamlined rail-less and penetration-free solar mounting to save time and money.

Made of high-tensile structural aluminum to match Riverclack's long-lasting performance, the S-5-RC requires no maintenance or re-inspection and is warranted for the life of the roof.

S-5-RC key features:

- Exclusively for Riverclack profiles
- Attaches a wide range of rooftop ancillaries
- Pairs with S-5! PVKIT rail-less solar mounting solution
- Quick, easy installation
- Secure and warranted long-lasting quality
- Zero-penetration attachment

The company's zero-penetration clamps and lifetime brackets attach ancillary items to standing seam and exposed-fastened metal roofs respectively, while maintaining roof integrity and warranties. Made in the USA, the company's roof attachment solutions are engineered for a variety of roof-mounted applications and are now installed on more than 2.5 million metal roofs worldwide.

www.S-5.com



From left – Terracotta, Mocha, Auburn, Jade

ProVia Barrel Tile Metal Roofing

ProVia has added Barrel Tile Metal Roofing to its product line. Roofers, remodelers, builders and architects can now offer homeowners the stylish look of authentic Spanish clay tile and the strength, longevity, and performance of steel.

The 26-gauge metal roofing system is galvanized on both sides and fortified with a GalvaTec™ coating that protects against mold, mildew, and harsh UV rays. It's engineered to withstand 130-mph

winds and has a Class 4 impact rating and Class A fire rating.

Spanish clay tile is synonymous with old-world Mediterranean architecture, but it's a challenge to install and maintain. Metal barrel tile offers several advantages for dealers and installers who want to make the switch from clay tile; compared to clay tile, the new product offers:

- An easier installation process
- Lighter weight; no need for additional structural support
- More durable and long lasting
- Resistant to damage from hail and wind-borne debris
- 50+ year lifespan and backed by a Limited Lifetime Warranty with unlimited transfers.

ProVia Barrel Tile Metal Roofing combines the classic beauty and distinct character of authentic Spanish clay tile. The cascading barrel profile offers elegant curb appeal, and the colors – Terracotta, Mocha, Auburn, and Jade – complement the earthy hues of traditional hacienda-style architecture. A Kynar™ 500 ceramic pigmented finish provides a low-sheen, matte appearance, and the resin-based topcoat protects the surface from dirt, mildew, and algae stains.

"It has been a long-time goal of ProVia to offer this classic, beloved style to our customers," stated Scott Lowe, roofing sales director. "The profile and colors are gorgeous and perfectly suited for Mediterranean and Spanish architectural design, so popular in coastal areas and the southwest. The system uses tongue-and-groove attachment and hidden fasteners for a cleaner look. But it's not just good-looking – it stands up to extreme winds, heavy rain, hail, and intense sunlight. It's a smart investment for homeowners who want substance, not just style."

www.ProVia.com

Board & Batten Profile for NTM SSQ II Portable

New Tech Machinery® (NTM) has announced the launch of its new board and batten profile for its SSQ II™ MultiPro Roof Panel Machine. The board and batten adds a 16th profile to NTM's SSQ II profile options.

This new profile produces panels with a unique blend of durability and aesthetics, ideal for modern construction projects while still reminiscent of old-style farmhouse siding. This profile will fit into our popular SSQ II, as well as older SSQ models dating back to 2014.

In addition to its durability, the new profile features a board and batten design that creates a beautiful, rustic look perfect for a variety of architectural styles. It's an excellent choice for both residential and commercial buildings. The boards are installed vertically with the battens covering the fasteners, replicating classic wood panels.

The board and batten profile will run .027" and .032" aluminum, or 24- and 26-gauge grade 50 steel, in any available color. The panel width can run from 10" to 25¼". The battens measure 2" wide by ¾" deep with a 5/16" return. The batten locks over the nail slots on the opposite end of a cojoining panel.

www.newtechmachinery.com

MR

TELL 100,000 SUBSCRIBERS ABOUT YOUR NEW PRODUCT

If your company has developed a new product for builders or contractors, email a new product announcement to one of the contacts listed below for possible publication in our business-to-business magazines.

NEW PRODUCTS

Bosch GST18V-50 18V Brushless Top-Handle Jig Saw

Bosch Power Tools has announced the launch of the GST18V-50 18V Brushless Top-Handle Jig Saw. The cordless jig saw delivers a strong cutting capability with up to 4.9" in wood. Its brushless motor delivers up to 3,500 no-load strokes per minute extending the motor's runtime and improving cutting performance on tough projects.

The tool-free blade change system permits fast and convenient blade insertion and ejection. A bright LED light illuminates the cut line in dark work areas, allowing workers to tackle tasks on a variety of jobsites efficiently. Complete with a built-in dust blower, workers can clear dust aside to navigate the cut line.

The variable-speed control provides a dial to adjust the operating speed from 0-3,500 no-load strokes per minute. With the variable speed trigger, users can control the operating speed by feathering the trigger. Workers can select the right blade stroke for their specific project by choosing one of the four orbital action settings.

Complete with Bosch Power Tools' CORE18V battery, the cordless jig saw delivers an extended runtime to help carpenters, remodelers, roofers and plumbers get a quick cut done to accomplish a range of projects.

ProVia Coal Black Soffit

ProVia has introduced Coal Black Soffit as an addition to the Universal vinyl soffit product line.

Building products professionals are aware of the popularity of trend-setting color choices for home exteriors — combining black and white, black and gray,

and even black with black. This has created a high demand for black materials such as siding, roofing, soffit, and accessories.

ProVia's Coal Black Soffit provides the dramatic dark look that homeowners seek. It's available in full-vent drilled and solid panels.

"We are excited to offer this great new color to our customers," stated Jon Lapp, ProVia siding product manager. "We believe it checks all the boxes — classic styling, a true shade of black, and of course the quality contractors and homeowners expect from ProVia vinyl products."

LP Building Solutions Seam & Flashing Sealant

LP Building Solutions (LP), a leading manufacturer of high performance building products, has announced the launch of LP WeatherLogic® Seam & Flashing Sealant, which is a solution designed effective sheathing adhesion with premium moisture management technology.

The sealant is a liquid-applied flashing material certified to AAMA 714-19 and is the only liquid-applied sealant approved to seal the panel joints (seams) between LP WeatherLogic panels as part of the LP WeatherLogic system. The sealant

ALL NEW STRETCH WRAP

All new stretch wrap from Levi's Building Components is a high quality Stretch Wrap banded plastic wrap that has excellent cohesion and holding strength. With 80-90 gauge thickness, Stretch Wrap is not easily punctured or torn.

Available in 5" x 1000', 12" x 1500', 18" x 1500' and 20" x 5000'. A dispenser handle is included in every box of 5' Stretch Wrap and is also available for purchase separately.

DIABLO STEP DRILL BITS

Diablo has announced the release of their new impact and drill-driver-ready Step Drill Bits. Using innovative technology, these new Step Drill Bits are designed to meet the user's needs when drilling holes in sheet metal, stainless steel, PVC and other plastics. These new Step Drill Bits answer the growing issues confronting users of standard step drill bits: durability, speed and lack of being impact driver ready.

Diablo's new impact and drill driver ready Step Drill Bits feature:

- A Split Point Tip stays sharper longer for easy on-point drilling — no pre-drilling necessary.
- Accu-Grip™ Technology, which delivers strict angle tolerances on each step for minimal bit wear and up to two times faster drilling and hole making.
- Drills clean holes, leaving no burrs and can de-burr holes, as well.
- Impact Strong — An impact drill ready 1/4" hex shank which can be used on standard cored or cordless drill driver as well as cordless impact drills.
- Optimized dust-flute design for jam-free holes and easier chip removal.
- Easy-to-read laser marked steps for accurately drilling holes of varying sizes.

Diablo's new Step Drill Bits include a 1/2" 6-step bit; a 1/2" 13-step bit; a 3/4" 9-step bit; a 7/8" 12-step bit; a 1-1/8" 17-step bit and a drill driver only 1-3/8" 15-step bit.

SENCO Nailers for Plastic-Collated Nails

KYOCERA SENCO Industrial Fasteners Inc. (SENCO), a global leader in fasteners and power fastening tools, has launched its latest built-in-the-USA pneumatic framing nailer. The SENCO FEN111 fires full round head nails and features more power, improved durability, and better ergonomics than comparable framing nailers.

Include a clear, high resolution image of the product (no logos or advertisements), along with a brief description of your product and the problems it solves.

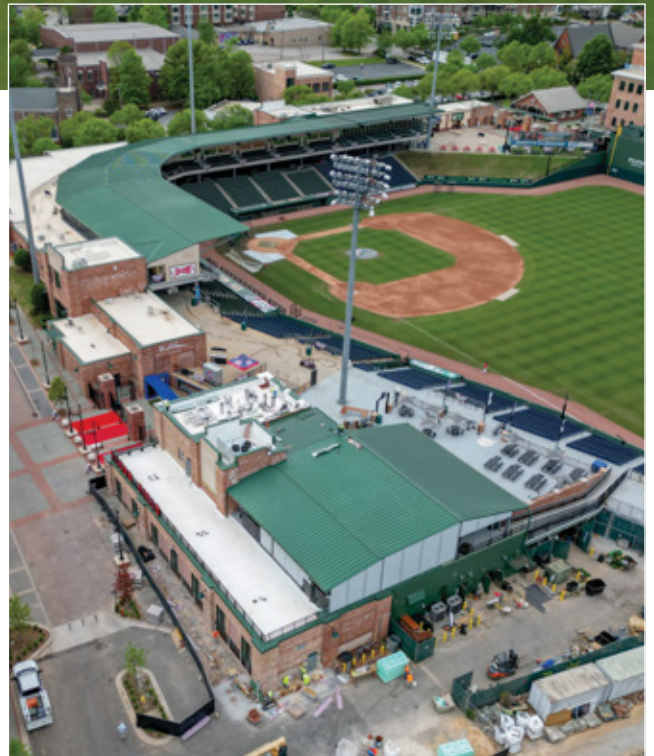
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project of the month



A Winning Clubhouse

Standing seam selected for clubhouse expansion project

This roofing project was for a Single-A baseball team, Greenville Drive, an affiliate of the Boston Red Sox. Originally built in 2006, Greenville, South Carolina's Fluor Field is modeled after Fenway Park.

Recent renovations include building an addition onto the clubhouse. Pro Cut Metals was able to deliver the metal panels to the field and then the contractors lifted the panels with a crane up on the roof. **MR**



Project Overview

Location: Greenville, South Carolina

Contractor: Premier Roofing

Roof Panels: Pro Cut Metals Snap lock 1" 24 ga.

Coating: Sherwin Williams Kynar, Classic Green

Fasteners: Direct Metals, Inc. 1" snap lock clips

Sealant: Tite Bond Caulk



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MR AUG/SEPT 2023



Mid-Year Roofing Market

Where does the metal roofing, roofing, and gutter market stand mid-year?


Shield Wall Media, with help from METALCON and the MCA, has completed the mid-year State of the Industry Survey. The purpose of the mid-year survey is to measure changes in market sentiment from the previous survey. Rather than focus on an entire year this survey focused on year to date and predictions for Q3 and Q4 2023.

With a few exceptions the general expectation is still positive, but slightly less so than in the October 2022 survey.

Roofing and Metal Roofing’s sales and profitability metrics did match their view of the broader picture. And there appears to be little change in outlook from the previous year

One interesting anomaly is in the sales metrics for Gutters. The prediction of units sold and gross sales both decreased significantly. But, predictions of increased profitability raised by 4%.

For Roofing, the market for the remainder of the year appears stable. All categories (Roofing, Metal Roofing and Gutters) have approximately 75% of respondents saying sales metrics (gross sales, units sold and profitability) will stay the same or increase. **MR**

 For more titles, check out Shield Wall Media online: www.shieldwallmedia.com

If you like the CSI columns or find the information useful, help us help you. Shield Wall media sends a State of the Industry Survey in fall and a mid-year State of the Industry Survey in Spring.

Please complete the survey and share it with your colleagues. A larger survey sample generates more reliable information.

Percentage of respondents predicting future increased gross sales	October 2022 Survey	May 2023 Survey
All respondents	52%	45%
Roofing	45%	35%
Metal Roofing	45%	44%
Gutters	45%	30%
Residential Single Family	49%	57%
Residential Multi-Family	67%	51%
Commercial	51%	53%
Industrial	38%	54%
Roofing Elements Subscribers	45%	42%

Percentage of respondents predicting future increased units sold	October 2022 Survey	May 2023 Survey
All respondents	45%	41%
Roofing	43%	30%
Metal Roofing	40%	34%
Gutters	37%	30%
Residential Single Family	42%	49%
Residential Multi-Family	52%	49%
Agricultural	50%	52%
Commercial	40%	49%
Industrial	38%	54%
Roofing Elements Subscribers	36%	34%

Percentage of respondents predicting future increased profitability	October 2022 Survey	May 2023 Survey
All respondents	43%	39%
Roofing	45%	37%
Metal Roofing	37%	35%
Gutters	36%	40%
Residential Single Family	42%	45%
Residential Multi-Family	66%	48%
Agricultural	47%	47%
Commercial	41%	44%
Industrial	38%	48%
Roofing Elements Subscribers	48%	32%

Percentage who believe the general business climate in the US will improve	October 2022 Survey	May 2023 Survey
All respondents	24%	16%
Roofing	32%	30%
Metal Roofing	26%	26%
Gutters	28%	30%
Residential Single Family	26%	31%
Residential Multi-Family	50%	48%
Agricultural	16%	27%
Commercial	23%	28%
Industrial	38%	33%
Roofing Elements Subscribers	33%	38%



THE DM-ARM HAS YOUR BACK!

Drexel Metals Association of Regional Manufacturers (DM-ARM) is a comprehensive portable roll former program designed to help you meet building codes and build your brand locally. The Drexel Metals DM-ARM program allows installers and regional manufacturers to grow their businesses by offering better local control, greater profits, freight savings, less scrap, and the ability to provide metal roofing on-demand.

As a DM-ARM member, Drexel Metals becomes your “back-office partner”, allowing your team to spend more time in the local market!



Become a member at
www.drexmet.com.



Learn more at www.drexmet.com

Sell More with the Roofing Passport

Exclusive to DM-ARM members, the Sherwin-Williams® Roofing Passport is a groundbreaking platform that simplifies metal roof estimation and ordering. As a fully automated program, this digital platform enables project estimation in one click. The Sherwin-Williams Roofing Passport creates a powerful link between EagleView's highly accurate roof measurements and SmartBuild's automated estimation software, creating an easy-to-use bidding platform.