

FEB/MAR 2023 • Vol. 22 • No. 1

METAL ROOFING MAGAZINE

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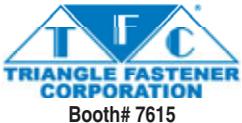
**PROBLEM SOLVERS
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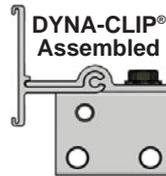
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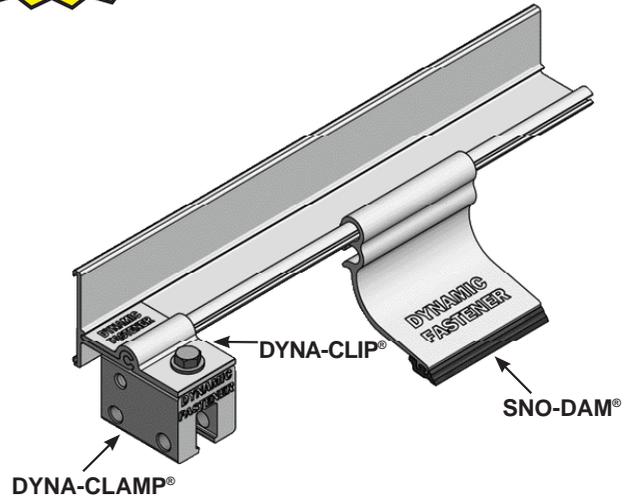
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And the Industry Survey Says ...

Welcome to the State of the Industry issue for Metal Roofing Magazine.

As a business person, individual days are different but still mostly the same. Today is different. I am pleased to announce something new we have been working on: the State of the Industry Survey. Shield Wall Media and METALCON teamed up to generate data about the market segments we serve. Through the survey we learned what builders and manufacturers experienced in 2022 and what they anticipate for 2023.

A few bullet points are included with the State of the Industry article in this issue. We added a new feature appearing on the inside back cover of every issue of every magazine we publish. This feature is titled *CSI: Construction Survey Insights*.

We generated too much data to include everything in one article. In *CSI* we will compare and contrast specific responses from our data.

Examples of the comparisons include, but are not limited to:

- Differences between metal roofing contractors and general roofing contractors.
- Differences based on the size
- Who is looking to expand and how
- The relationship between units sold, gross sales and net profits
- Concerns facing different businesses (type and size) for 2023.

If there are any comparisons you would like to see, let me know and we will include it if we can.

The only way to access the raw data is to help us share the survey. It's too late for



Look for *CSI: Construction Survey Insights* on the inside back covers of all Shield Wall media magazines – including this one. See page 59.

2022, but next year keep it in mind. We'll be doing a mid-year industry update, so you won't have to wait long to get a full data set.

Have a healthy, happy and prosperous 2023.

Gary Reichert, Publisher
gary@shieldwallmedia.com

EDITOR'S LOG

By Karen Knapstein, Managing Editor

Pay Attention, Choose Wisely

Welcome to the first edition of 2023. The outlook for this year is somewhat different than the outlook for 2022. Thankfully, most of the supply chain issues have been resolved. While material prices are not at pre-pandemic levels, availability has stabilized somewhat. The really big question is: Will there be a construction slowdown because of inflation or a recession?

Shield Wall Media staff writer Linda Schmid tackles this important question in her State of the Industry coverage beginning on page 22. We've gathered information from our industry-wide survey and asked key industry insiders for their take on the economic outlook for 2023. It's an interesting read ... once you've read it, we'd love to get your feedback and learn what you think.

As I write this, we're looking into the not-so-distant future for the International Roofing Expo, which will be held at the Kay Bailey Convention Center in Dallas from March 7-9. The last time IRE was held in Dallas was February 2020. I recall it vividly as it was my first experience at the largest roofing event in North America. Little did anyone know that a few weeks after that event there would be mass shutdowns, nationwide restrictions on gatherings, and the cancellation of all in-person trade shows.

When I think about everything that's happened over the last three years, it seems somewhat surreal. If we hadn't lived through it, I may have said, "Naw, that can't happen." Lessons learned; I'm sure you've learned some lessons, too. More now than ever I live by the advice

"Control the controllable" and "Pay attention!" Beyond that, all we can do is apply the lessons we've learned in the past to affect the best possible outcomes in the future.

Last Call!

The deadline to send in a projects to be published in the Metal Roofing IDEA Book is February 15! We've made it easier than ever to submit a project ... it's as easy as filling in the blanks in the online form at <https://bit.ly/IDEAbk23> and upload high resolution images on the same web page. (Or you can use the form on page 53.) It's that easy! As they say: **Don't Wait! Act Now!**

Karen Knapstein, Managing Editor
karen@shieldwallmedia.com

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APRIL PREVIEW

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ON THE COVER:

Energy efficiency and low maintenance are just two of the features that consumers love about metal roofs.

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Metal Roofing Magazine (ISSN: 1533-8711) (Volume 22, Issue 1) is published seven times per year (March, April, May, July, September, November and December) by Shield Wall Media LLC, 150 Depot St, Iola, WI 54945. Periodical postage paid at Iola, WI, and at additional mailing offices. Canadian Agreement Number: 40665675. POSTMASTER: Send address changes to Metal Roofing Magazine, Barb Prill, PO BOX 255, Iola, WI 54945. Copyright 2022 Shield Wall Media LLC. Metal Roofing Magazine and its logo are registered trademarks. Other names and logos referred to or displayed in editorial or advertising content may be trademarked or copyright. Metal Roofing Magazine assumes no responsibility for unsolicited materials sent to it. Publisher and advertisers are not liable for typographical errors that may appear in prices or descriptions in advertisements. Mailed free to roofing contractors and their suppliers throughout North America. Others may subscribe: \$29.98 for 1 year, \$56.98 for 2 years, and \$80.98 for 3 years.



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The goal should be to eliminate as many potential leaks as possible and the easiest way to start is to eliminate all end laps. PHOTOS COURTESY OF MCELROY METAL.

Panel Choice

Panel Systems That Work Well for Metal Roof Recovers

By Charlie Smith, McElroy Metal

In our last article (*Metal Roofing*, October 2022), we discussed the decision whether to remove and replace an existing metal roof or to recover it. In this article, we will discuss the types of metal roof panels that can be installed for recover applications or retrofit over an existing metal roof.

When choosing a metal roof panel to be installed in a retrofit or recover situation, one need only consider mechanically seamed, structural standing seam panels designed to go over open purlins. My

advice is to stay away from snap-together panels on this type of application because snap-together panels are designed to shed water while structural panels are designed to be water tight.

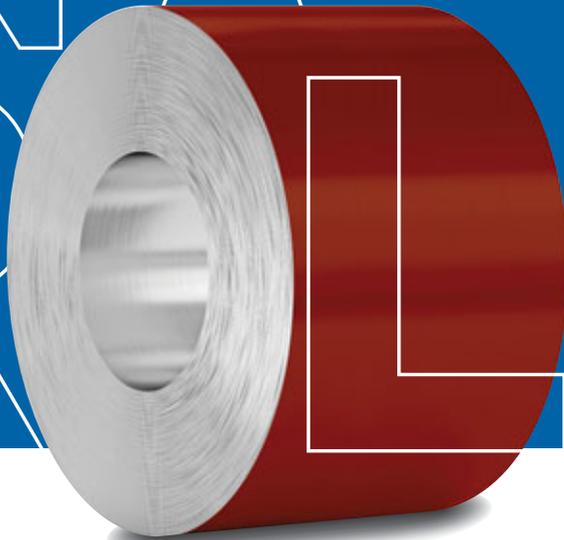
In this article we will also focus on free-floating standing seam panels for recover since replacing a leaking roof with an exposed fastener roof system that has fasteners penetrating the panel surface has greater potential for future leaks and is therefore not the optimal long-term solution.

The seam height on a structural standing seam is at least 2". One may choose

between a 3" tall trapezoidal-shaped rib and a 2" to 3" tall vertical rib panel. Both trapezoidal and vertical rib systems have their advantages.

Mechanically seamed, 3" tall by 24" wide trapezoidal standing seam roof systems are supplied by pretty much every company that makes metal buildings or metal building components. These systems are typically made in a factory and sold as an upgrade to an exposed fastener roof system on a rectangular metal building with slopes down to ¼" per foot. The trapezoidal panel has a couple of advantages over a

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vertical rib panel. Mainly, trapezoidal panels are the least expensive structural standing seam panels available. They cost less to manufacture, package, and ship than a vertical rib panel. The 24" width make them efficient to install. And they perform best on rectangular buildings

with a 60' or less eave-to-ridge dimension and few — if any — curb penetrations. They come with pre-formed closures at the ridge and eave and have a 3" tall, watertight seam.

Trapezoidal rib panel advantages diminish as the panel length increases,

the roof geometry gets more complicated, wind uplift pressures increase and the number of penetrations increases. Since these systems are normally made on a fixed-base, factory roll former, the maximum panel length is determined by what can be put on the back of a truck. If the eave to ridge dimension is 150', then you will end up with at least 3 panels lapped end to end. These end laps are the single most common source of leaks on a metal roof.

Site forming of full-length standing seam roof panels eliminates end laps, but there are very few manufacturers providing trapezoidal standing seam panels fabricated on the jobsite. There are instances where extremely long panels are shipped, but the risk of damage to the panels during transportation, loading, and unloading is very high. Trapezoidal standing seam panels are designed to be

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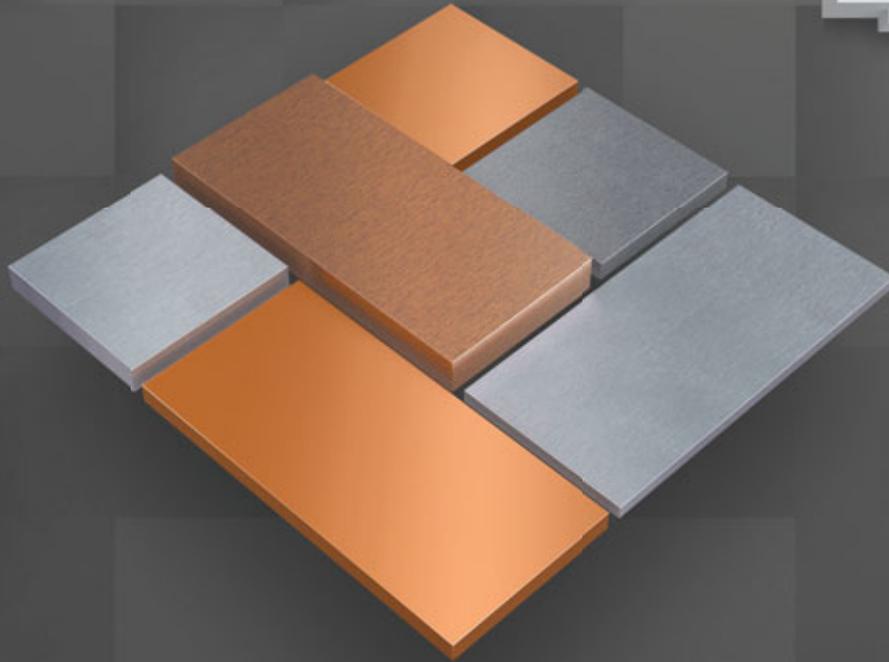
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installed on a rectangular building with a straight eave and ridge with no hips or valleys. If a trapezoidal seam gets cut on an angle it is extremely difficult to make the connection to the closure water tight.

In areas where wind uplift pressures are higher and the existing roof is installed on a metal building with purlins 5' on center, then there is a good chance some additional framing will have to be added in order use a trapezoidal standing seam. There are some trapezoidal systems available with longer clips or different ways to seam the panel to help overcome a certain amount of increased wind pressure. Before making the decision on using a trapezoidal standing seam on a recover job, make sure you understand what will need to be done in order to meet the current wind loads when it is installed. Most companies that provide trapezoidal standing seam roofs have agreements with secondary manufacturers to produce 080 welded aluminum curbs. If there are curbs or other penetrations that have to be dealt with, be sure to obtain a curb that fits the panel seam exactly. There are subtle differences between systems and installing the wrong curb will result in constant leaks.



Seam damage. There is a reasonable chance there can be damage to the roof panel during the double-lock seaming operation.

If the roof has a longer panel run, complicated geometry, or a lot of penetrations, then a site-formed vertical rib panel may be a better choice. The goal should be to eliminate as many potential leaks as possible and the easiest way to

start is to eliminate all end laps.

There are two types of vertical ribbed structural standing-seam roof panels: those that are asymmetrical and those that are symmetrical. Both systems have their advantages. An asymmetrical panel is one piece, normally 2" tall and 16" wide, installs from left to right or right to left, will most likely be seamed to a 180-degree double lock seam, and like trapezoidal panels, have two-piece floating clips folded into the seam. There is an abundance of portable and factory roll formers out there that make a 2" tall asymmetrical panel. This seam height is okay down to a 1/2"/12 slope for most manufacturers.

An asymmetrical panel has several advantages over a symmetrical panel. They are much more common than a symmetrical panel because there are several thousand pieces of equipment owned by major and regional manufactures as well as roofing contractors that make this type of panel. They cost less money because of this excess production capacity and there is only one manufactured component.

Also, these systems use less material



A problematic, leak prone lap on a trapezoidal standing seam.

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to make the seam than a symmetrical panel. The disadvantages of asymmetrical panels (both vertical and trapezoidal ribs) are that there is a break in the seam sealant at each clip location which can cause leaks and the amount of thermal movement is limited to the slide mechanism of the two-piece clip. Also, there is a reasonable chance there can be damage to the roof panel during the double-lock seaming operation.

Finally, these panels are extremely difficult to remove, replace, or repair after they have been installed. Like a trapezoidal panel, their wind uplift capacity on purlins 5' on center is limited and framing will probably have to be added to meet the current code when recovering a typical metal building. For sure, adding framing can be a time consuming and expensive undertaking.

A T-shaped symmetrical panel consists of two pieces: a panel with the top of the seams pointing in and a separate seam cover that joins two adjacent panels together. This cap is attached to the roofing panels with a mechanical seamer during installation. The fixed clip sits in a groove inside the panel seam which creates a situation where there is no contact between the seam sealant and the clip, making the system more water tight than an asymmetrical panel. Also, since the panel is able to float on a fixed clip, the panel length is not limited by the clip. We have run these panels up to 410 feet long.

Symmetrical panels allow more flexibility during installation. The installer can start in the middle and work both ways as well as skip over curbs, flash them later then backfill the hole. Most of these symmetrical panel systems are available with continuous clips. In a recover situation, over an existing metal building with purlins 5' on center continuous clips can triple the wind uplift capacity of the roof system, eliminating the need for additional framing.

The most important attribute of a symmetrical panel is that individual panels can be removed and replaced after installation without disturbing adjacent



Since symmetrical panels float on a fixed clip, the panel length is not limited by the clip.

panels. This is extremely important when considering that a properly drained Galvalume® roof is projected to last between 50 and 60 years, much longer than most any other roofing material except maybe tile and slate. There is a lot that can happen during that time. For a long-term building owner, the choice between being able to make a simple

repair or having to tear the roof off when there is damage should be an easy decision. The only real disadvantage to a symmetrical roof system is that there is a higher initial cost. These panels cost a little more money because they use more material to make the seam and two component parts — panel and seam cover — are required. **MR**



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Staining of Building Panels from Steel Debris

Story and photos by United States Steel Corporation.
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BACKGROUND

Steel debris, when allowed to remain on a building following its construction, will quickly rust, causing an unsightly stain that is difficult to remove. To the untrained eye, steel debris looks like premature corrosion. As a result of the appearance, the owner of the building may become understandably upset, believing the contractor used inferior materials that have little or no corrosion protection.

Steel debris includes iron fines left from cutting and/or drilling operations when using friction saws, abrasive discs, drills, etc. Additionally, weld splatter from welding operations may also contribute to steel debris. Steel debris may include other construction materials left on the roof, such as nails, screws, staples, nuts, rivet shanks, etc.

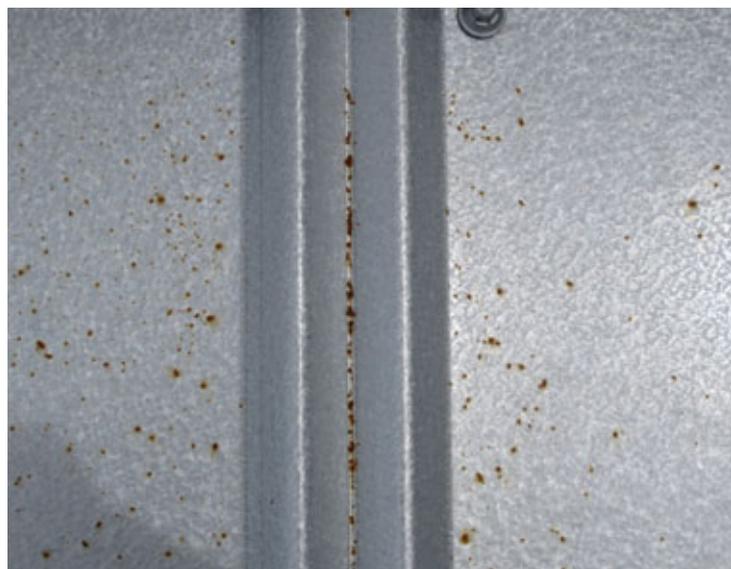
Prevention of steel debris staining is the responsibility of the installer. Materials suppliers will not accept claims for it. Stain prevention is much easier and less expensive than cleaning and repairing the stain caused by the steel debris. In severe cases, such staining can lead to replacement of the panels.

WHAT DOES STEEL DEBRIS STAIN LOOK LIKE?

Fresh steel debris stains are small red-brown colored spots with a central dark spot (the remains of the steel particle). Steel corrosion eliminates fine steel debris within a couple of years on painted panels. The stain will remain long after the metallic iron has rusted away. The panel feels rough from loose or embedded particles. On bare panels, galvanic action protects the debris, possibly depleting the metallic coating in the immediate vicinity. An old steel debris stain will appear as a smoother surface with a localized red-brown stain in the area where the steel particle corroded away. Iron fines from drilling cause groups of stain spots around the hole. Cutting often causes a line of stain spots along the cut. Tracked particles cause randomly dispersed spots on the roof. Inadequate washing moves particles to the inside of the profile.

PREVENTING STEEL DEBRIS STAIN

There are four steps to preventing steel debris staining. The best method is to not form the iron fines in the first place. When this is not possible, the exposed surface should be protected from debris generated during cutting, drilling or welding. Additionally, the panels need to be protected against tracking. Finally, all debris should be cleaned off the panels.



Preventing Steel Debris Stain — Cutting

Where possible, minimize cutting by using factory supplied cut-to-length sheets. The custom shears used by the factory to cut the profiles to length leave no debris on the sheet.

To prevent formation of steel fines, the best tools for on-site cutting are profile shears, hand shears, or electric nibblers.



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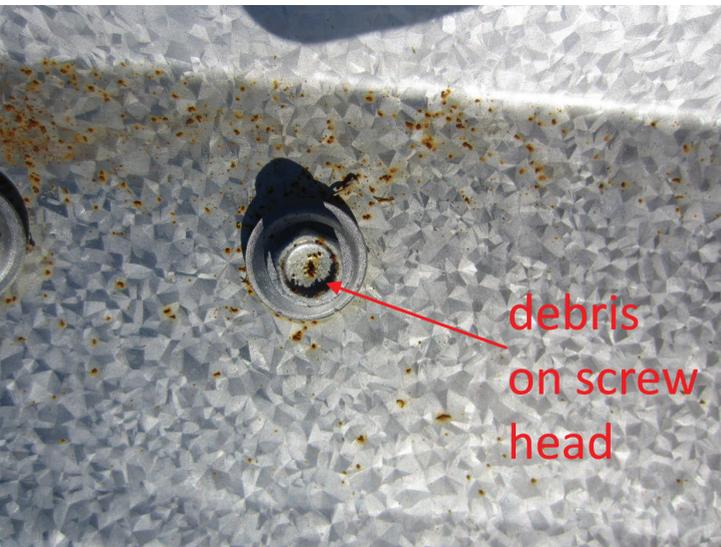
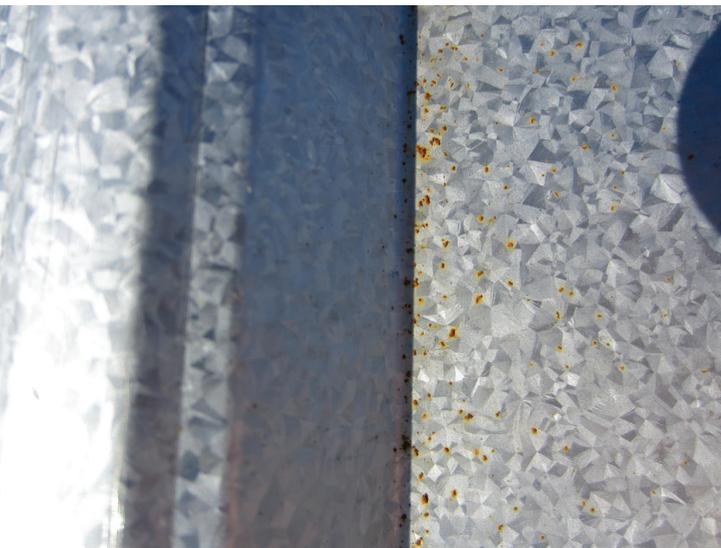
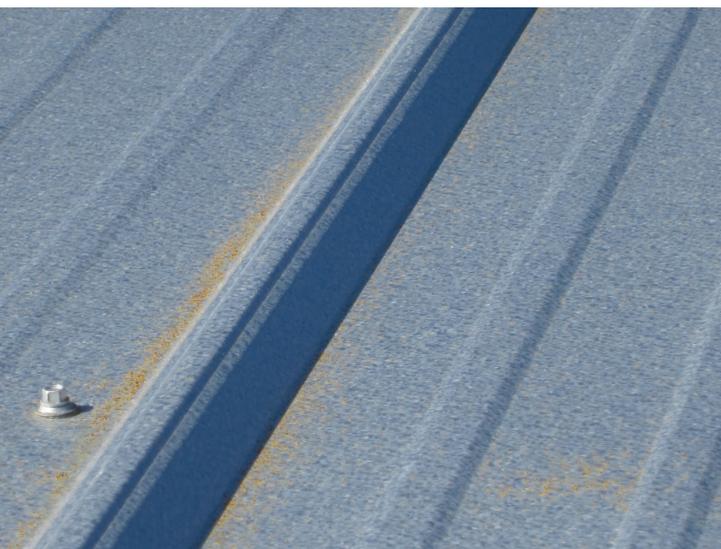
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Because these methods form a smooth edge, they are the only acceptable cutting methods with respect to corrosion of exposed edges. Rechargeable or plug-in hand-held electric nibblers easily cut standard panels. Hand shears may not be suitable for longer cuts, but may be useful when multiple layers of steel require cutting.

A power saw with a metal cutting steel blade is the next best way to cut sheets on-site. Power saws generate larger and cooler particles than abrasive discs. The particles are thus less likely to burn into a painted surface. If material needs to be cut near installed sheets, mask the area near the cut to keep the hot particles away from the completed work.

If on-site cutting is necessary, cutting on the ground keeps steel particles away from other panels. Facing the exterior color finish of the prepainted steel down prevents steel particles from landing on the exterior surface. Take care to ensure that hot steel particles do not come into contact with prepainted steel sheets and DO NOT cut above other coated products, where debris may fall onto other sheets.

Preventing Steel Debris Stain — Welding

Unlike fines from cutting and drilling, weld splatter is much more likely to burn through the paint to the metal surface. This is also likely to be a problem with bare metal. If possible, avoid welding on or near building panels. When welding is necessary, mask the surrounding area with scrap metal to prevent the splatter from hitting panel surfaces.

Preventing Steel Debris Stain — Fastener Holes

The best method for making a fastener hole is to start it with a punch and then to use a self-tapping screw. To prevent bending the panel, make the hole using a backer. Punching holes will not leave fines, but may create an inside burr. Using a punch works best on a wood frame.

There are circumstances when punching a hole is not

practical. In these cases, drilling should be conducted on the ground in the manner described above for cutting. If drilling holes on the building is unavoidable, mask the area around the hole to shield the panel from hot metal.

Always use sharp drill bits to reduce the formation of steel fines. Dull bits form smaller, hotter steel particles that are more likely to melt into the paint. Sharper bits will often form easily removed spirals.

Preventing Steel Debris Stain — Clean-up

Sweep or hose the steel particles from the job as the job progresses to remove loose particles and particles not well embedded in the paint. Take great care to avoid any action that is likely to remove the paint or metal when attempting to detach embedded debris. Any damage to these coatings will lead to a reduced life of the material.

Clean the debris from the panel progressively or at least at the end of each day. When sweeping or hosing into a gutter, clean it out before leaving the job in order to prevent premature corrosion of the gutter. Upon completion, give the job a final wash. Manually remove larger pieces, such as nails and screws, not washed off as part of the final clean-up.

For critical applications or bare metal, inspect the job after two weeks. Rain or condensation will cause the remaining steel particles to rust, highlighting affected areas. On bare roofs, steel particles not removed can become a serious corrosion problem.

Preventing Steel Debris Stain — Tracking

All construction sites generate steel particles on the ground. Construction crews can track these particles onto the roof or panels on the ground from the soles of their shoes.

Bare GALVALUME®¹ Coated Sheet Steel or HDG coated sheet steel roofs are subject to staining from tracking of dirt and other construction area soils onto the roof. Painted panels can become scratched or marred when the soles of shoes grind soils or steel debris into the paint surface.

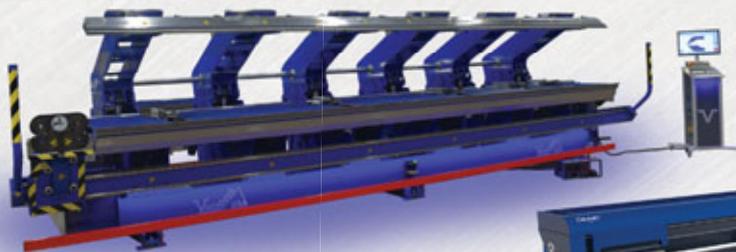
Ribbed or soft soles carry the particles easier than smooth or hard-soled shoes. One possible solution would be to use slip-on shoe covers to wear on the finished surface. This would ensure no debris being tracked on the roof. Any worker that walks on

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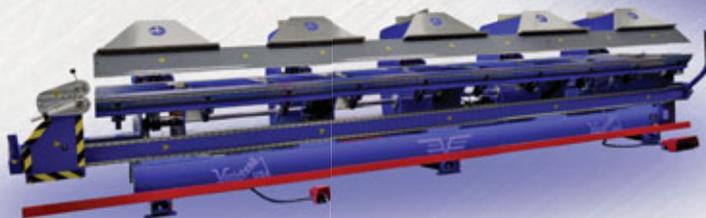
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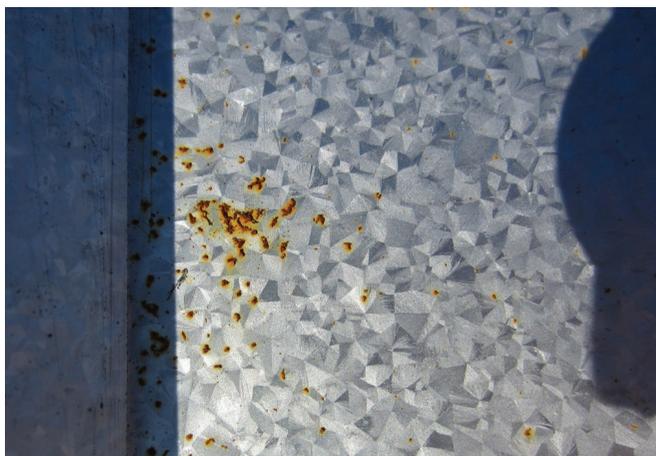


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a new roof panel should take precautions not to transfer dirt or steel debris to the fresh surface.

Another solution is for the roofing workers not to switch to the ground and back. Once the crew is on the roof, the workers on the ground should send up all materials needed rather than the roof crew retrieving them. The workers on the roof should remove the dirt and debris on the soles of their shoes.

Architects and general contractors need to know about the problems arising from tracking of steel debris. They must then warn the appropriate supervisors so that they discuss the necessary precautions with all workers at the site. Precautions against panels on the ground being walked on is necessary for construction site visitors.

EFFECT OF STEEL DEBRIS ON PANEL CORROSION

The main effect of steel particle staining on painted panels is aesthetic. It is usually not detrimental to the overall corrosion performance. Typically, paint separates the debris from the metallic coating. It forms red rust until completely rusted away. The natural weathering action will deplete the red stain on top of the paint.

Only rarely, will steel particles penetrate the paint and contact the protective metallic coating. The red rust is inert, but steel particles in contact with the coating will accelerate zinc corrosion, leading to premature coating depletion and paint peeling.

On bare metal coating, steel debris will cause accelerated corrosion in a small area. The zinc in the coating sacrifices itself to prevent oxidation of both the steel debris and any exposed areas of the base steel. This leads to premature coating failure and a shorter panel life. Any cleaning that does not remove the steel particles will not help the coating.

LEAVING THE DEBRIS AND STAIN

Leaving the stain and debris on bare metal roofs is not an option. Failure to remove the particles quickly will lead to galvanic attack of the coating and possible premature perforation of the panel.

In virtually all circumstances, the stain on painted panels is only a cosmetic imperfection. Not cleaning the stain is a viable option. Removing the stain after a couple of years' exposure is easier than removing it immediately. The steel particles embedded in the paint will corrode away in that time. Any steel particles that remain after cleaning will rust again, causing more stain.

On paints that chalk, natural washing action will remove the stain. On paints that do not chalk, such as fluorocarbons, the stain will remain for a very long time if not cleaned.

REMOVING THE STAIN — BARE STEEL SHEET

Brush the surface with a bristle (not metallic wire) brush to dislodge particles. Completely remove them by washing the dislodged particles off the building. Leaving the particles in the gutter could reduce the life of the gutter. Wire brushing can change the panel's appearance and could remove some of the metallic coating. If corrosion from the debris severely damages the metallic coating, affected areas may require painting to obtain the desired protection. Do not use any kind of steel wool as it will break up and create steel particles. Any steel particles that remain after cleaning will cause further stain.

REMOVING THE STAIN — PREPAINTED STEEL SHEET

Completely remove the steel debris, through natural corrosion of the particles or through mechanical methods. Permanently remove the stain with a recommended cleaner.

A mild abrasive cleaner, applied lightly with a non-abrasive pad, can remove normal staining and most of the particles causing the stain. It is necessary to only use light pressure as the cleaner may remove the paint and will affect the paint gloss. Do not use steel wool.

More severe staining requires extensive cleaning. There will be more particles and more rust. In this situation, use a nylon brush or a non-marring abrasive pad to remove embedded steel

particles. Test any cleaning procedure on a non-exposed section to ensure it will not remove the paint. The abrasion will probably lower the surface gloss.

Sandpaper or nylon abrasive pads (not steel wool) are acceptable for removing difficult steel debris when repainting an area. Since this also removes most of the rust staining, subsequent washing with a mild abrasive cleaner or another recommended cleaner will remove the remaining rust. Otherwise, follow the standard procedures for repair painting specified by the paint supplier. Never use strong acids or alkalis.

Paint blistering in the immediate vicinity of a stain indicates penetration by the steel debris. This penetration is very rare, but the corrosion causing the blistering will continue if not removed.

SUMMARY

1. Steel debris from cutting, welding, and drilling or steel debris from small pieces, such as nails, will cause red rust stain spots on painted or bare panels.

2. To avoid staining: do not form steel particles; if the steel particles are formed, keep the particles off the panel surface and clean off those particles that get on the panel as soon as practical.

3. Make fastener holes without drilling by punching holes. Make cuts without much debris by using an electric nibbler or profile shear.

4. Drilling or cutting on the ground keeps the fines off the building. If the

exposed side is down, the particles stay off the exterior paint.

5. Mild abrasive cleaning will remove the stain and most of the particles, but any remaining steel particles will cause the stain to return. **MR**

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Centennial Roofs for America

Kirsch Building Products is at the Forefront of Innovation

By Linda Schmid

Did you ever go to a new place, see how the locals are doing something and wonder, “Why don’t we do it like that?” Mark Strait, President of Kirsch Building Products had that experience when he went to Germany with the NRCA (National Roofing Contractors Association) in the ’90s.

“I was amazed by their roof technology. They were putting on 100-year roofs; we were doing 25-year roofs,” Strait said.

“The German roofers were very particular and detail oriented. They didn’t use tar paper under tile, metal and slate; they used different types of polymer based roof underlayments. They laughed at our 25-30 year warranties, saying that no one in Germany would use that on their house; they might put such a



roofing system on a chicken coop.”

When Strait talked about using their types of underlayment back home, German roofing experts said it wouldn’t work as their roof framing/sheathing systems were different than what is used in America.

That felt like a challenge to Strait. He determined that roofing longevity in America could be improved through “improved” roof underlayments, and he was just the guy to do it.

Strait had worked as a roofing contractor for over 25 years in Ventura, California, where concrete and clay tiles were popular. Tract housing particularly had lots of concrete tile roofs and in 10-15 years they required re-setting, because the asphalt based roof underlayment had deteriorated. In the late ’90s he’d invented a lightweight roof tile, but it had never been marketed because it didn’t work with the current production technology. Now Strait was determined to put his innovation to work to create a better underlayment for a long-term performance roofing system.

The first thing he did was develop a list of requirements for this new product including: tensile strength, chalkability, wind resistance, walk-ability, standard fasteners, and the ability to be used with all kinds of tile, metal, slate, and asphalt shingle roofing, and easy installation. Five years later, in 2001, he had a patent on Sharkskin underlayment.

It was a hard sell at first; many roofing professionals seemed to think that Sharkskin was the work of a “mad scientist.” But a few early adopters saw the value of it and gave it a chance, and then others started to follow suit.

BUSINESS PROFILE

It became very popular; Sharkskin introduced slip resistance to the underlayment world. Combined with high-temperature resistance, less energy transfer, its green properties, no VOCs in its synthetic butyl adhesive, and longevity...it was the Porsche of underlayments. Soon other companies were trying to emulate the product, but Strait points out that the cheaper versions you find in roofing distribution and big box stores aren't as effective as the current Sharkskin roof underlayment line, which was developed for all pitched roofing systems.

One of the things Strait is most proud of is Sharkskin Roof Underlayment's unmatched "wind uplift resistance" numbers. He tells the story of Tyndal Air Force Base, Panama Beach, Florida in the Gulf of Mexico. The roof was not complete when Hurricane Michael, a Cat 5 storm with 200 mile per hour winds hit in 2018. Most of the standing seam metal panels of the incomplete roof blew off, but the Sharkskin remained intact.

Despite its success, the company has remained true to its roots. They work with many independent contractors: trucking companies, production teams, and warehouses.

An advantage of being a smaller company is that they are more nimble; they can pivot much more easily and Strait leverages the abilities, expertise and knowledge of the companies he works with.

Kirsch's culture encourages independent thinking and ideas. Strait says he listens to his people and gives them a voice. And when something doesn't run smoothly, he asks not whose fault it is, but how do we fix it? What do we learn from it?

Strait said his business philosophy has a biblical basis; everything flows from that. Doing what's right leads to great customer service, as well as customer and business partner loyalty.

It's important to be transparent, to stand up for your viewpoint, and to be responsible, compassionate, and ethical. Have wisdom, patience, and faith. Remember that everyone has something going on and they won't always talk about it. Try to understand others' perspectives.



While Strait's guidelines for conduct are traditional, solid, tried and true, his approach to his products is innovative. His goal is to continue to develop and bring to market the products that often go against the status quo, challenging the paradigms that people become entrenched in. He is always on the lookout for fresh ideas and different ways of doing things, which aligns with his culture of listening to employees and customers.

He is always asking customers questions, such as, "If there was a product for that, how often would you use it?" As a former roofer, he finds it easy to talk to roofers and understand them and the challenges they face.

As for what is coming in the future, Strait said Kirsch is working on a couple of new projects that they are not ready to announce; he is wary of tipping his hand since he has had challenges regarding his intellectual property being copied in the past. He acknowledged that we seem to be headed toward more aggressive weather, so products to protect people from these stronger storms and keep homes and buildings safe and dry is very important. So it seems that the industry will have to wait and see what this innovator brings to the rooftop next. **MR**



Tyndal Air Force Base, 2018: 200 mile per hour winds blew off much of the incomplete roof, but the Sharkskin underlayment remained in place.

Looking Ahead: A Blueprint for Success

Insiders' ideas about what's in store for the construction industry and how to prepare

By Linda Schmid

Many different economic indicators can be taken into account when looking for clues as to what the state of the industry is likely to be just a short distance down the road. One check is what the experts in a given industry see. Shield Wall Media, parent company of Rural Builder magazine, did a survey in conjunction with METALCON to measure the climate in the construction industry. The results are overwhelmingly positive; the majority of builders improved sales and profitability in 2022. Further, most believe that their business will not only sell more or about the same in 2023 as they did in 2022, but they project their overall profitability to be the same or better. For further insights from our survey, see the survey results on the next page.

A look at industry behavior can be a great indicator of where things are

40% are looking to hire new construction employees

33% are looking to hire new support staff or office help

headed. According to Lisa Pate, Executive Director of the FRSA, Florida's Roofing and Sheet Metal Association, attendance was good at the 2022 convention with 40 more booths than the previous year. Further, they sold out all of their booth space at the 2023 expo, so 2023 is looking good.

According to Sean Shields, Director of Communications of the Structural Building Components Association (SBCA), the Business Components Manufacturers Conference (BCMC) 2022 was the most well-attended since 2006. There were twelve education sessions full of people eager to pick up new ideas including panel discussions that fostered a vibrant exchange of ideas. Attendance was up from 742 in 2021 to 1,216 this year, exhibiting a great enthusiasm and willingness on the part of owners to spend money to better their businesses. That's a very good sign for the economy.

Ben Johnston, Chief Operating Officer at Kapitus, a finance provider for small and medium sized businesses observed that financing applications were up in 2022, 34% up year over year with the funded volume up 46% to approximately \$230 million. This of course speaks to the state of the industry last year when demand – and inflation – were both high. Contractors worked through spiking material costs, labor shortages, and supply chain issues.

Going into 2023, Johnston expects rising interest rates to depress both residential construction as well as low-

COMPARING 2023 TO 2022

40% believe gross sales will increase

50% believe it will stay the same.

30% believe profitability will increase

57% believe it will stay the same.

rise commercial projects. However, he believes that as demand for new construction slows, many people will be investing in renovating the homes and business buildings they already own rather than trading up.

Zonda media, however, is forecasting a drop in residential remodeling in 2023. Not only has there been a slowdown in existing home sales in 2022, but home prices are expected to decrease in every state in 2023, a correction in the market. This can lead to fewer home projects meant to increase value for sale or projects new homeowners instigate to make a newly purchased home theirs. Projections of declines in real incomes

are also expected. All of this leads Zonda to conclude that remodeling will be down approximately 2.3% by the end of the year, mainly in the more moderate homes of lower income homeowners.

Another measure of likely outcomes for 2023 is ABC's Construction Confidence Index which reports a rise in sales this past October yet falling profit margins and staffing levels. Still, all the numbers are above the threshold of 50 which indicates expectations of growth over the next six months.

ABC Chief Economist Anirban Basu said, "While the industry continues to gain strength from significant funding for public work, pandemic-induced behavioral shifts — including remote work and online business meetings as well as surging borrowing costs — are translating into meaningful declines in backlog in commercial and institutional

35% of Metal Roofing subscribers who responded are looking at buying a new truck or trucks

57% of Metal Roofers who responded are looking at buying a new truck or trucks

segments. "With borrowing costs likely to increase during the coming months and material prices set to remain elevated, industry momentum could easily downshift further in 2023," said Basu.

Basu further stated that economists may be overly pessimistic, however. The U.S. economy has some momentum going and near-term recession is not inevitable. While building backlogs have declined, the industry remains healthy and contractor data indicates that the

majority expect the next six months to be positive.

Rob Haddock, CEO of S-5! believes what many economists have been saying, that the U.S. economy is likely going into a slowdown, if not a recession. He explains that the huge building boom that everyone has experienced is largely the product of the COVID-19 crisis and the supply shortages. The industry has been basically playing catch-up all through 2022. With demand up and supplies down, prices inevitably rose.

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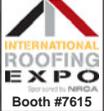


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Industry Survey Results

Shield Wall Media, in partnership with METALCON completed a survey on the construction market segments we serve. The survey includes general business climate opinions (such as comparing 2022 to 2021), future expansion, concerns and predicting what 2023 brings. Over time we will analyze the data for insights and trends.

These are some insights and trends from the respondents who subscribe to *Metal Roofing Magazine*:

- **Metal Roofing Subscribers Responded**
 - 40% are looking to hire new construction employees
 - 33% are looking to hire new support staff or office help
 - 35% are looking at buying a new truck or trucks
 - 26% are expanding into different types of construction or offering new products
- **Comparing 2022 vs. 2021**
 - 2X more reported increased gross sales than decreased and stayed the same combined
 - Approximately half more reported increased profitability
 - 25% believe profitability will stay the same
- **Comparing 2023 to 2022**
 - 40% believe gross sales will increase while 50% believe it will stay the same
 - 30% believe profitability will increase in 2023
 - 57% believe profitability will stay the same
- **Metal Roofers Responded**
 - 60% of metal roofers had increase gross sales in 2022 compared to 52% of all roofers.
 - Profitability was similar between metal and all roofers
 - Metal roofers have a slightly more pessimistic outlook for 2023. 50% predict a decline vs. 43%.
 - 26% of metal roofers and 24% of all roofers are looking at adding metal forming equipment.
 - 57% are looking at adding a new truck.

Then inflation was added in. Haddock thinks these factors will likely bring demand down as we move through the first quarter of 2023. Then the industry will slow — noticeably — but not necessarily catastrophically. On the up side, this may help with the labor shortage.

Keith Dietzen, CEO of Keymark agrees that rising interest rates and tightening credit will have a bit of a dampening effect in the new year. As someone who studied economics, he said that the two key factors he watches are inflation and interest rates. If inflation doesn't start coming down, the Federal Reserve will raise interest rates to try and bring supply and demand into balance. But, when rates rise, it impacts new construction and other capital expenditures and it can reduce demand throughout the economy. Still, he's not convinced it will be a very dramatic slowing of the economy.

“It’s a mistake to cut back too much, especially in your marketing budget. When the industry gets soft, that’s when you really need to get aggressive on the marketing end, getting people into your shop by advertising and at trade shows. That’s when you gotta market your products and services and find new customers.”

However, he has advice for businesses should there be more than a slight downturn.

“It’s a mistake to cut back too much, especially in your marketing budget. When the industry gets soft, that’s when you really need to get aggressive on the marketing end, getting people into your shop by advertising and at trade shows. That’s when you gotta market your products and services and find new customers.”

Not everyone agrees with these assessments. Christian Rios, Marketing Manager and Mike O’Hara, National Sales Manager at Levi’s Building Components foresee good things coming in 2023. They believe commercial construction particularly and construction overall will be strong. They speak to the slowly declining prices of lumber and steel as promising indicators, though they acknowledge that concrete, insulation, and some other material prices continue to rise.

Haddock also sees some prices going down and believes that material prices will stabilize eventually, once the demand calms down. He has already seen the cost of aluminum level and even decline as well as steel leveling out.

Not everyone is as optimistic about material prices. Amanda Storer, Director of Marketing at Metl-Span/Centria of the Nucor Insulated Panel Group said, “We foresee a gradual decline in projects, specifically towards the back half of ’23 because of

the continued rise in interest rates and higher than historical raw material costs.”

A sign Rios and O’Hara hail as good news in their own section of the industry is the continuing migration to the southern states, where they say awareness of the benefits of metal roofing is growing, promising great market growth.

Wayne Troyer of Acu-Form has seen that metal roofing and siding are gaining market share as more people begin to think long-term. He does see some serious challenges ahead though: interest rates and fuel prices. He believes that due to higher interest rates people are more likely to just hold on to the buildings they have instead of building or buying.

On the bright side, Troyer has a plan. He intends to partner with his customers, ensuring that his pricing is mutually profitable. Further, he thinks that the

60% of metal roofers who responded had increase gross sales in 2022 compared to 52% of all roofers

end user hasn’t felt the impact of the material prices that have dropped much yet, so once they do it should get things moving.

Dietzen has noticed a positive trend in the post-frame industry. Interest in barndominiums has been growing.

“It’s an interesting phenomenon,” he says, “because it’s not a supplier generated interest. It’s a demand on the part of consumers.”

This creates big challenges for some builders according to Dietzen, because many of them are accustomed to creating a shell for agriculture and sheds; they are not used to dealing with plumbing, all of the mechanical pieces that go into residential builds, and highly finished interiors. Many of them have turned to subcontractors to complete this part of the project.

Keymark has taken this challenge and used it to help expand the post-frame market by enhancing its software to support barndominiums. It’s one of the company’s primary focuses for 2023, along with incorporating supports for all metal building.

Taking advantage of trends is exactly what Beatrix Ceballos, Export Manager and Isocindu advise. They believe that some emergent trends will positively

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STATE OF THE INDUSTRY

impact the industry, including the push for Green buildings, automatization for efficient building management and new digital technology.

“Some of the sectors will slow down,” she said, “but others such as cold chain will increase and there’s a high demand for material supply chain, labor, etc.”

Both Ceballos and Robert Zabcik, P.E., LEED AP Technical Director for the Metal Construction Association, see great growth potential in IMP use for cold storage niches such as agriculture, seafood, pharmaceutical, and cannabis.

Haddock sees great things for S-5! coming up, expecting significant growth in 2023. Many of the products they produce are related to safety, especially snow retention products and mounting fault protection systems. As well as being part of new construction, these safety items are often part of retrofits, and they are often required for code compliance.

While not life-saving, solar applications are quite popular as people try to bring their energy costs down. Energy costs have soared and the war in Ukraine has not helped. The more it goes up, and as governments offer incentives, the more attractive solar thermal and photovoltaics become.

“When you can install an electric generation system that will last 35 years or more and it pays for itself in the first few, who wouldn’t do that?” Haddock asked.

Energy costs in other parts of the world are generally even higher than in the U.S. and Haddock and company are expanding into new export markets expanding their reach and drawing in revenue sources from all over the world.

Johnston’s viewpoint coincides with Haddock’s belief that solar panels and accessories are a good industry sector to be in currently. He states that revenue will be driven into the residential sector of the industry, referring to the Inflation Reduction Act, in which the government has extended a wide range of tax credits for homeowners who install solar panels and other energy efficient products such as new windows, water heaters,

26% are expanding into different types of construction or offering new products

26% of metal roofers who responded and **24%** of all roofers are looking at adding metal forming equipment

HVAC systems and heat pumps. Of course, contractors can drive business by becoming knowledgeable about the potential tax and energy savings, tailoring their offerings and assisting potential customers to qualify for the tax benefits.

The Lumber, Building Material, and Hardlines (LBMH) industry sees promise in investments in software. In line with the construction industry overall, these companies have seen great returns in 2022. With extra capital in their pockets and an expected downturn in the economy, they are in many cases expanding their e-commerce and support for online sales. 88% of those surveyed saw increases in their e-commerce over the last 12 months. The fact that consumers have accepted new e-commerce channels is promising and suggests that while builders may not be able to sell their finished product online, aids such as visualizers may be helpful in this business climate.

Rios and O’Hara believe that the key to being successful in the new year will be great customer service and ensuring that your company has the supplies they need in stock. Part of that involves pre-planning and communicating with your suppliers sooner rather than later.

Meanwhile, Storer warns that contractors and builders stockpiling materials way ahead of need because of past chain supply challenges are likely to cause more delays for those who need the supplies sooner rather than later.

When it comes to the employee shortage, O’Hara and Rios advise that you take care of your current employees. Managing customer expectations is an important factor in keeping employees from burning out.

ABC’s Construction Confidence Index seems to support that idea. Over half of industry professionals indicated that they believe that staffing levels will remain the same or go down, and when you consider that the staffing levels have been short this year, it’s probably a sign that employers should try to hold on to the employees they have.

Zabcik advises doing whatever you can to retain talent.

“Look to reroof and retrofit to pick up when new construction slows, but try hard not to lay people off,” Zabcik said. “You’ll never get them back.”

Haddock agrees; he doesn’t see the employee shortage going away any time soon. Forward-thinking companies will likely come up with new training techniques to increase efficiency and productivity and possibly reduce turnover, he said. However, he doesn’t see labor costs going down a lot unless construction demand comes down in middle to late 2023.

Dietzen doesn’t see an easy fix to the labor shortage. Like Haddock, he thinks there is opportunity for anyone who can find or develop solutions to help ameliorate the problem, such as automation, new software, any techniques or processes that require less labor or lower the bar on the skill level required.

Johnston offered this insight: “Builders will continue to struggle finding quality workers at affordable wages and will continue to see elevated costs of materials, while projects plateau or decline. Fortunately, we do expect inflation to be lower in 2023 than it was in 2022, and we

expect the actions of the Federal Reserve to reduce inflation further as the year progresses, limiting further demand destruction and inflationary trends.”

As far as trends in construction, Haddock has noticed over the last fifty years or so that commercial construction follows residential construction; though it does have roughly a six-month time lag. In other words, if residential construction slows down, commercial construction usually follows suit eventually. When residential starts to pick up, commercial will again follow suit.

Haddock has advice for those in the industry who would like to feel more confident about their prospects for the future. He suggested studying and thinking through the likely prognosis for different aspects of the industry. For

example, if you build high-end custom residences that people pay over a million in cash for, they will likely build it even with an economic downturn, and low-cost housing is a necessity. But the \$300,000 to \$400,000 home buyer is the guy who is being squeezed. “Try morphing your business into a direction that will help protect you,” Haddock said.

Johnston bears out this idea, noting that if there is a silver lining in the construction market, it may be the high-end residential market.

“High earners have not shown a meaningful decline in purchasing power,” Johnston said. “In 2023 we expect high earners to continue investing in residential real estate and for high-end residential construction experts to remain in demand.”

Other industry sectors that Haddock sees as safer and great options to expand a building business into: hospitals, nursing homes, and other medical facilities, and government buildings. These places are necessary and eventually they need to be refurbished if not rebuilt. Agriculture is another example of a more recession-proof sector. “People have to eat,” Haddock says.

Dietzen notes that some business owners start as contractors, grow, and begin buying in bulk, developing a supplier business in addition to contracting or to replace their contracting business.

In conclusion, the name of the game seems to be: diversify. The more sectors you are involved in, the less you will be negatively impacted if one sector sees a downturn. **MR**



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Galvalume Co-Inventor Inducted Into Metal Construction Hall of Fame

Icon and Mentor Recognized for Achievements

Fifty-six years ago, Angelo Borzillo was an employee of Bethlehem Steel, an American steelmaking company in Pennsylvania. For most of the 20th century, Bethlehem Steel was one of the world's largest steel producing and shipbuilding companies. Borzillo and his manager, Jim Horton wished to find a better way to combat corrosion of sheet metal than the industry's standard of galvanizing with 100% zinc.

They conducted a series of steel coating tests. Ultimately, they combined 55% aluminum with 43.5% zinc (by weight), and, to improve the coating's adherence to substrates, 1.5% silicon. That marked the invention of "GALVALUME®,"¹ a coated sheet steel product ideally suited for most types of roofing with an expected service life at least double of (pure zinc) galvanized-coated components. It was a game changer for the metal construction industry.

By 2021, with 66 licensees on six continents, an annual global production of 11 million tons and a cumulative global production of licensed Galvalume sheet exceeding 220 million tons, the product had generated an estimated annual revenue of more than 10 billion dollars for licensed steel companies alone. Additionally, millions of jobs and additional revenue for downstream processors and the steel construction industry worldwide are attributed to the product.

Now 89, Borzillo was recently named to the Metal Construction Hall of Fame, an industry award granted to individuals who have significantly impacted the



Rob Haddock (left) and Arif Humayun (right) present Ange Borzillo, co-inventor of Galvalume, with the prestigious Metal Construction Hall of Fame award. PHOTO COURTESY S-5I

metal construction industry through their innovation, efforts and leadership.

Borzillo's long-time colleagues, close friends and mentees, Arif Humayun, president of BIEC International Inc., and Rob Haddock, founder of S-5I and charter inductee to the Metal Construction Hall of Fame recently accepted the award on his behalf.

Humayun's relationship with Borzillo began in the 1980s when Humayun first worked as a research engineer at Bethlehem Steel Homer Research Labs.

"When I started my career, Ange (no one called him Angelo) had moved to BIEC, and Galvalume sheet technology had been commercialized," said Humayun. "Ange focused on licensing the technology globally, and I focused on product development and on resolving issues related to prepainted Galvalume sheet, which had been withdrawn from the market due to technical issues in 1978. Prepainted Galvalume sheet was

reintroduced to the market in 1982 and was instrumental to further progress for this product. We worked together over the span of more than four decades and supported each other's goals."

"Ange is incredibly humble and quick to acknowledge the support he received from colleagues in the development of Galvalume sheet," continued Humayun. "He always said, the best days for Galvalume sheet were ahead of us. Initially, I was not sure what he meant, but now I understand."

"It is a distinct honor for me to receive the Metal Construction Hall of Fame induction on behalf of my mentor, Angelo Borzillo," said Humayun.

Borzillo's work on Galvalume sheet inspired his involvement with many industry events and associations including the Metal Construction Association (MCA). At an meeting in the 1980s, MCA member Haddock, now CEO of S-5I, had been operating a metal

¹ GALVALUME® is a registered trademark of BIEC International Inc., or one of its licensed producers.

construction contracting business.

“The first time I heard the word ‘Galvalume’ was about 1975,” said Haddock. “I was ordering a building from Kirby Building Systems for a job. The sales guy asked, ‘Do you want galvanized or Galvalume sheeting?’ I said, ‘What’s Galvalume?’ He responded, ‘Well, it’s like galvanized, but has some aluminum in it. It’s supposed to be better—same price.’ I was 21, but that statement stayed with me for life. I thought to myself, who doesn’t want better for the same price? Decades later, when creating S-51, my ethos became ‘better for less’—everyone wants better, especially when it doesn’t cost more.”

“Then in about 1985, 10 years after I first heard of the product, I was introduced to Ange Borzillo at an MCA meeting (he always attended MCA meetings). I was fairly new to the industry at the time, and I was awe-struck that I had just met

the inventor of Galvalume sheet, which by that time was sweeping the metal building market.”

“I got to know him very well in the years and decades that followed,” continued Haddock. “From the first day we met, he treated me with respect and took me under his wing. He might have been a genius working for a big outfit, but he was always a regular guy and unassuming gentleman. His approach made a lifetime impression on me. Humble is the word that best describes him.”

“Ange was never a guy to beat his own chest, but always gave heartfelt and sincere credit to others. When I would introduce Ange to any number of folks as the ‘inventor of Galvalume sheet,’ he would always stop me dead in my tracks and say, ‘co-inventor, Rob’—giving due credit to his colleague, Horton. I will always deeply value Ange Borzillo as a role model and dear friend.”

“He taught me never to give up no matter how difficult the struggle,” said Haddock. “He would tell me about his early challenges in the experimental and inventing process. Through Ange, I realized struggles were part of the process. In the early days of S-51, I was told many times: ‘there is no market for this,’ or ‘it cannot be made for any reasonable cost.’ What if I had quit? Ange inspired me to keep on keeping on.”

“There is nobody who deserves this honor more than Ange,” continued Haddock, “and I am honored to present it in person with my colleague, Arif.”

Borzillo is the part of the 10th class of inductees to the Metal Construction Hall of Fame, first originating in 2012. After many years of having worked in a variety of roles at Bethlehem Steel and BIEC, he retired in 2002. Today, he spends his time at home near Philadelphia with his wife, Lucia. **MR**



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Every project is important and comes with its own set of challenges, so the last thing you need to deal with is damaged panels, whether kinked, rusted, or scratched.

The first thing manufacturers will advise is that you should follow the handling directions they provide in order to avoid damaging panels. Make sure that the actual panel handlers are provided training with the tools they will be using.

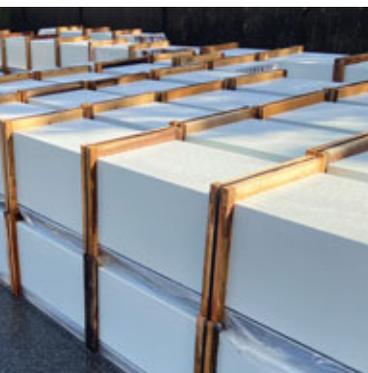
Planning and prep are the next things on the list before you even start the roofing job. For example, you will need to consider the slope of the roof, the height above ground, what type of roof you have...deck or open frame, the weather conditions, the manpower and equipment needed in order to develop a plan. A good plan can prevent damage to panels.

However, there is more to damage prevention. Let's get into some of the considerations that can make the difference between a job running smoothly and a scenario where the job is delayed due to damaged panels.

Storage is Important

When your panels come in, they should be packaged in one of two ways: blocked and banded or in wooden crates.

In the blocked and banded version, the wooden blocks are screwed together to create a "C". On the sides the panels are placed so you see the back of the panels, thereby protecting all the panels from scratching.



Blocked and banded panels.
PHOTO COURTESY OF PETERSEN | PAC-CLAD

Some manufacturers say they package the panels standing on edge, oriented face to face and back to back in alternating sequences. The panels are packed into bundles so that 3-4 bundles lay side-by-side in the back of the semi-trailer, stacked 3-4 bundles high. The height of the panel seam determines how many panels are in a bundle. For example, a 1 3/8" standing seam panel can have up to 42 panels per bundle, while a 2" tall

bundle should only have up to 28 panels. Also, as the length increases, the number of panels will decrease to reduce the weight. The block and band are spaced 4' to 6' along the bundle. At the end they may have an OSB or plywood end cap to help keep the bundle square.

It's best to keep them in this configuration until they are needed. They can be lifted with a crane or a fork-lift or stacked block to block just as they are.

Crating the panels with 2x4s and plywood can keep them safe also. Some experts find that there are other challenges associated with crates including excess motion required for crating and the cost of the extra wood. Others like the solidity of the crate.

Keeping them in their protective packaging, store the standing seam panels in a protected area away from anywhere that water or snow can rust the panels.

Beware of chemical damage also. Green concrete does a lot of out-gassing in the first 30 days after it is poured. If you are placing panels on it, you will need padding in between. Concrete dust from sawing is also a problem, as well as commonly used spray chemicals that can stain the panels. Elevate the panels with blocks and slope them for proper drainage of moisture. If necessary, cover them with a waterproof tarp, but take care not to restrict air movement around the panels.

In the best case scenario, the panels are not put into storage at all or at least not for long. Sometimes panels are ordered in advance and end up sitting on the jobsite for up to a year, thereby exposing them to many possible accidents, including staining, corrosion, and getting banged up. Further, if sealants are left on-site with the panels in a tube or box, they can deteriorate. In fact, it is not a good idea to leave any trims, clips, or fasteners on-site for long. Trims with strip-able film have a special challenge; the film starts to bond, then deteriorate and it can leave a residue that is time-consuming to remove.

Moving Panels

If you are forming your own panels, it helps if you have an automated system for moving panels onto skids after fabrication, for example via overhead lifts. Once crated, a crane can pick them up and load them directly onto the truck bed.

When panels are shipped, they should be protected as already mentioned with blocks and bands or crates. Skids can be reinforced on sides and bottoms for extra protection. Load plans can ensure the trucks are packed in the best possible manner to avoid load shifts for the safety of the people as well as protection of the panels. Finally, tarps can be added for moisture protection.

Moving the panels directly to the roof from the truck is the safest way to unload them, but this is not always possible. When your job permits this method, ensure that end dams are installed at the eave to prevent panels from sliding off the building.

If direct transport to the roof is not feasible, the panels can be stacked on the ground. Make sure that they are stacked on a slope for drainage and that they are not placed in the way of other ongoing work so that they do not get damaged. You may need to cover the panels with a tarp, but make sure there is

PRODUCT FEATURE

space at the bottom of the tarp for air flow or condensation can become a problem. This is also true for coil storage; the best bet is to store coil in a shipping container.

Whether moving panels onto a truck for shipment, moving them up to the roof, or taking them off the truck and stacking them on the ground, kinking can happen when you move the panels with a crane with incorrect spreader bar spacing. For example, if you use 2” wide straps, the lifting power is there, but such a narrow width causes pressure which can lead to bending. A common strap is 6” wide. If the bundle is 40 feet long, place one strap on one side and one on the other, picking points from the spreader beam down. Using only two points of contact can create a problem too. Four points spreads the weight of the load better, diminishing the likelihood of bending.

Sometimes an extended reach forklift can be used for unloading a truck, assuming the panels are not too long. Ensure that the fork is level. If they are tilted, the bundle may fold.

An experienced roofer will prefer to take the panels to the roof to cut the bands and disassemble the panels from their packaging. Depending on what is on-site, some roofers will unwrap them on the ground, then put them on the spreader beam and haul them because the equipment can't handle the weight of the panels in their wooden packaging.

Contractors must plan for the weight that will need to be lifted for each job so that they can have the proper equipment on-site. When there are 3,000 panels to lift to the 4th floor and your equipment cannot handle it, your guys are going to pay the price. You will also need to take care that you do not overload any area of the roof with too much weight.

If you are stacking loose panels on the roof, they will need to be secured with banding screwed to the deck or ropes that run under heavy stacked panels and tied at the top. Once again, it's a good idea to use an end dam at the eave to prevent panels from sliding off the roof.

Manual Movements

While the experts emphasize that, due to the length of most panels they should be moved via a hoist or other equipment, there may be times that manual lifting is unavoidable. If this is the case, there is definitely a right way and a wrong way to do it. Mainly this has to do with two things: having enough people and working together. Following these guidelines helps avoid worker injury as well as damage to panels that could be dropped, banged, or kinked.

How many are needed to move panels depends on the roofing material, steel or aluminum for example, and the length of the panels. Forty foot panels should have 3-4 people, approximately one for every 10 feet, evenly spaced down the length of the panel. Hold panels in a vertical position when moving them.

If you are moving the panels across the roof, ensure that everyone is standing so that if a big gust of wind comes along, no one will be blown off the roof.

Working together as a team means that before you pick

anything up you all know the plan: Where are you going and the pathway there. If possible, remove any item from the path that might be a hazard.

Coordinate your movements, starting together and moving in the same direction at the same time because if you have people pulling in different directions it is easy for someone to end up with back strain. The easiest way to avoid this may be to appoint someone “drill sergeant” to direct everyone.

If panels need to be carried over the ridge of the roof, you will probably have to turn the panel parallel to the ridge, unless the slope is 2/12 or below.

Lifting Advice for Small Roofing Companies

For a small company that is looking at what is needed for jobs at an affordable price, hoists can be rented by the day or by the week, and are considered by some of the experts to be the best way to handle crates of standing seam panels.

Portable or small cranes like Spydercranes can be low cost and relatively simple to use. A lull lift that features an extending boom is another possibility; it should do the job if lifting supplies to a second or third floor. It can drive over rough terrain, and it will cost less than hiring a crane company to set up a crane.

In choosing a lift, one must always take into consideration the height it will need to ascend to, the weight capacity, the reaching distance, and all the capabilities of the piece of equipment they are looking at.

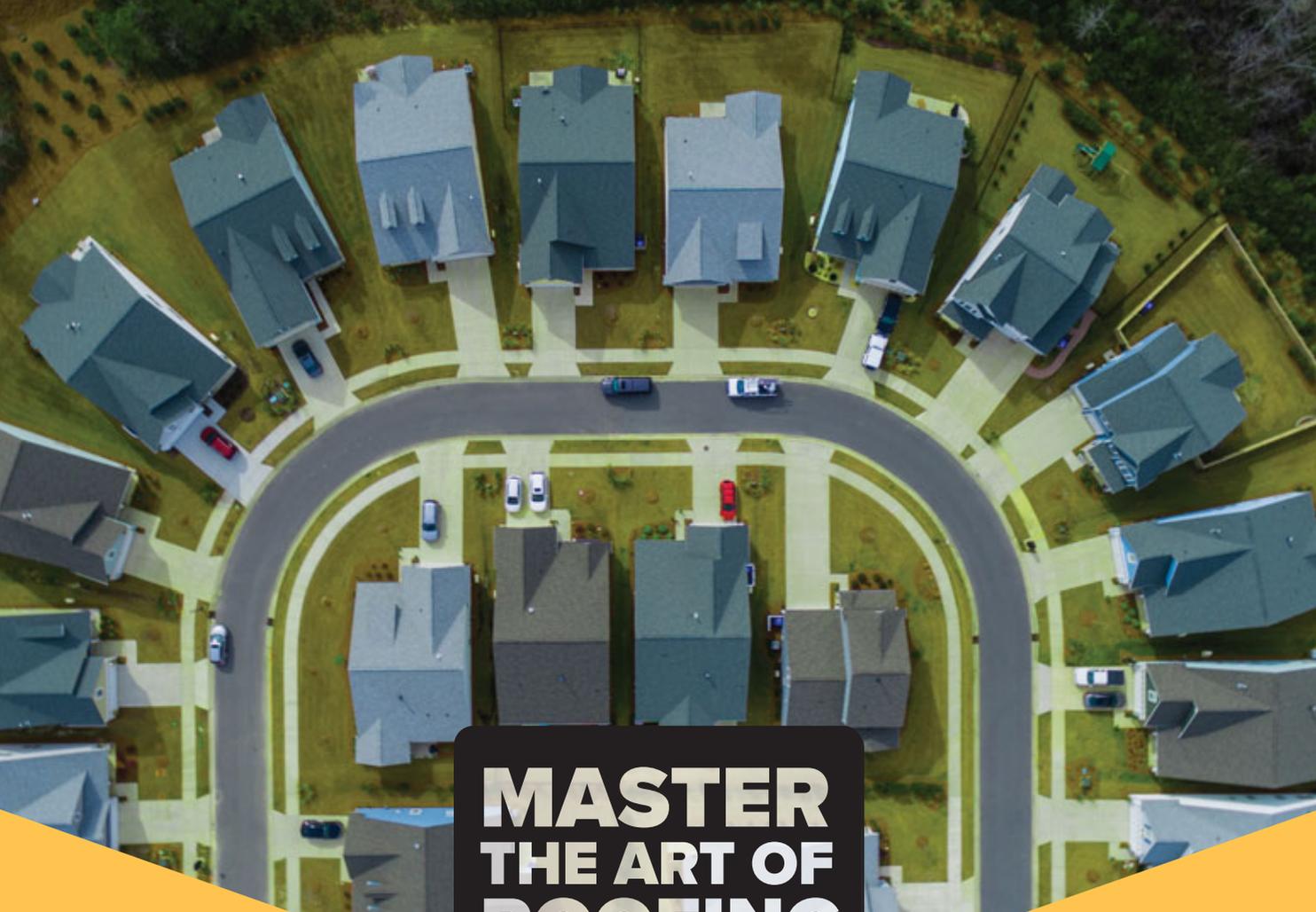
If you have the capability of fabricating panels right on-site, a good solution can be shooting them directly onto the roof via a “tilt trailer” which eliminates the need for cranes and lifts.

If no hoist is available, the panels can be hand-fed by multiple people to the roof's eave for the workers on the roof to install them one at a time, assuming you have enough workers to keep the panels from bending and kinking. You could also lift panels individually by rope with a clamp on the seam. **MR**



THANK YOU TO THESE INDUSTRY SOURCES WHO SHARED THEIR EXPERTISE AND INSIGHTS:

- Charlie Smith, McElroy Metal, www.mcelroymetal.com
- Arnold Corbin, Centria a Nucor Company, centria.com
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International Roofing Expo

Roofing & Exteriors Celebrates 2022 Power Players at IRE

By Gary Thill and Kaitlin Schuler

In June, Roofing & Exteriors—in partnership with the International Roofing Expo and sponsored by SRS Distribution—unveiled the 2022 Power Players. This honor recognizes 50 of the top roofing and exteriors contracting companies modeling business practices and company values that produce success.

But Power Players is much more than simply another industry recognition program. The companies selected as part of the inaugural Power Players group embody key business drivers—beyond annual income—that roofing and exterior executives have said time and again really matter. These include:

- Community engagement
- Social media
- Innovation and growth
- Diversity
- Technology
- Company culture
- Competitive advantage.



The International Roofing Expo returns to the Kay Bailey Hutchison Convention Center in Dallas, Texas, March 7-9, 2023.

To recognize this achievement at the 2023 IRE, the 2022 Power Players received complimentary Super Passes for attendees from their companies, VIP registration access and a special logo

included on their attendee badges. “We introduced this award program to provide a platform that brings added visibility to the industry’s highest achieving and emergent companies to

INDUSTRY EVENTS

watch within the roofing and exteriors sector,” said Rachel Williams, R&E special projects editor. “We could not be more excited to announce the 50 companies who demonstrate leadership that drives business and innovation forward.”

These Power Players serve as shining lights for other companies who may be seeking guidance and inspiration during turbulent times or who are looking to level up their own business.

How do you attract employees during the Great Resignation? How do you address ongoing supply chain and inflationary pressures? How do you innovate and grow amid an ever-changing technological landscape of apps and social media? This group of Power Players have found answers to



those questions and more, and they’ve maintained top-notch customer service in the process.

As companies do need to make money to be successful, annual income was included as one factor of many used to select the Power Players. Because of this,

you’ll see some familiar names on the list, including some of the industry’s highest-earning companies, such as Tecta America and CentiMark.

But whether a company takes in close to a billion in annual revenue or much less, the R&E team reviewed them using the same company drivers that truly distinguish Power Players from others in the industry.

Ultimately, the 2022 Power Players capture a variety of vital ingredients to success—elements that often have remained hidden behind the scenes until now. R&E was impressed by the creativity, savvy, generosity and tenacity of these top roofing and exterior companies—the very stuff that powers the best of this industry. **MR**

2022 Power Players

- Above Roofing, Jenison, Michigan
- Absolute Roofing & Waterproofing, Austin, Texas
- Advanced Roofing & Construction, Huntsville, Alabama
- Allied Xteriors, Ponchatoula, Louisiana
- Alois Roofing & Sheet Metal, West Allis, Wisconsin
- American Roofing Company, Summerville, Georgia
- Antis Roofing & Waterproofing, Irvine, California
- Armor Home Services, Erlanger, Kentucky
- Aspen Contracting, Lee’s Summit, Missouri
- Black Hills Exteriors, Rapid City, South Dakota
- Boyce’s Roofing & Repair, Oceanside, California
- CentiMark Corporation, Cannonsburg, Pennsylvania
- CMR Construction & Roofing, Haltom City, Texas
- Complete Exteriors, Pearl, Mississippi
- Corey Construction, Houston, Texas
- Cross Timbers Roofing, Richmond, Virginia
- The Durable Slate Company, Columbus, Ohio
- E. Cornell Malone Corp/Malone Roofing Services, Jackson, Mississippi
- Emerson Enterprises, Lenexa, Kansas
- Feazel Roofing, New Albany, Ohio
- Gorman Roofing Services, Phoenix, Arizona
- Gunner, Greenwich, Connecticut
- Guy Brothers Roofing, Pensacola, Florida
- Harbeck Roofing & Remodeling, Angier, North Carolina
- Henson Robinson Company, Springfield, Illinois
- Home Genius Exteriors, Hyattsville, Maryland
- I-57 Roofing, Arthur, Illinois
- Kalkreuth Roofing and Sheet Metal, Wheeling, West Virginia
- Kelly Roofing, Naples, Florida
- Legacy Roofing, Clearfield, Utah
- Mac Roofing & Construction Co., Middleborough, Massachusetts
- Merit Contracting, Rochester, Minnesota
- MG Roofing, Muscle Shoals, Alabama
- NextGen, Warrensville Heights, Ohio
- P&A Roofing and Sheet Metal, Orlando, Florida
- PB Roofing, Elmwood Park, New Jersey
- Pinnacle Construction, Omaha, Nebraska
- The Pinnacle Group, Richmond, Virginia
- Rackley Roofing, Carthage, Tennessee
- Renner Roofing, Red Wing, Minnesota
- RJW Exteriors, Lake Hopatcong, New Jersey
- RoofClaim.com, Kennesaw, Georgia
- Roofing Solutions, Prairieville, Louisiana
- Spann Roofing & Sheet Metal, Conway, South Carolina
- Sterling Commercial Roofing, Sterling, Illinois
- Superior Roofing, Aurora, Colorado
- Superstorm Restoration, Urbandale, Iowa
- Tecta America Corp., Rosemont, Illinois
- Umbrella Tech, Leander, Texas
- United Materials, Denver, Colorado

Exteriors Pavilion Returns to IRE 2023

Informa Markets' International Roofing Expo, the premier roofing and exteriors event, has announced the return of the Exteriors Pavilion to IRE 2023, a specialized area dedicated to showcasing manufacturers and highlighting new and innovative products in the exteriors market.

The roofing and exteriors industry continues to grow rapidly, as residential construction remodeling and replacement has become a \$519 billion dollar market. To provide a best-in-class platform for roofing and exteriors professionals during this high-growth period, IRE has doubled down on its Exteriors Pavilion. The 2023 edition of the Exteriors Pavilion will feature demonstrations of new innovations and practices for exterior replacement projects. The show floor is designed to help industry professionals identify opportunities and build brand awareness while growing their customer base through generating more sales. The Exteriors Pavilion will host top manufacturers and suppliers like LP SmartSide Siding & Trim, the Vinyl Siding Institute, James Hardie Building Products, and more.

IRE offers a comprehensive experience to attending and exhibiting industry professionals, and [as of Jan. 6, 2023] hosts nearly 500 exhibiting companies under multiple market segments including business and technology, metal, and more, alongside its exteriors exhibitors. The roofing and exteriors community converges to share strategies, drive business, discover new technologies, discuss best practices, and explore the latest products.

In addition to the expansive show floor, IRE hosts comprehensive education sessions on relevant industry topics including tips on siding, replacements and installation tools, to provide attendees with new knowledge on business, building techniques, and more. The education sessions are an additional tool to deepen industry knowledge and stimulate innovation, while providing professionals the opportunity to present their insights.

Siding and exteriors education sessions



include, but are not limited to:

- The Keys to Rapid Growth and Profitability for Siding, Replacement Window, and Roofing Contractors—*Dave Yoho Associates*
- How to Hire the Right Personnel—And Avoid the Wrong Ones—*Dave Yoho Associates*
- The Basics of Vinyl Siding Installation and Tools of the Trade—*David W. Verbofsky and Rob Balfanz, Vinyl Siding Institute*
- How to Leverage your Distributor as a Partner for Success in Today's Environment—*Greg Bloom, Erik Zadrozny, Beacon.*

The International Roofing Expo is slated for March 7-9, 2023, at the Kay Bailey Hutchison Convention Center in Dallas, Texas.

Owned by Informa Markets, the International Roofing Expo® is the premier event for both the commercial and residential roofing and exterior construction industries. This event brings the professional community together to help them stay current on trending knowledge and to see the largest selection of roofing-related products and services. It helps professionals improve their business through education, exhibitions, and networking. **MR**

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Metal Roofing Features Hit Home With Customers

By Brian Haraf, Metal Sales Manufacturing Corporation

Metal roofs have become a top choice for many homeowners looking to build or remodel to achieve cost-effective, energy-efficient housing. As a contractor, you can provide more of what potential customers want by focusing on all the benefits that metal roofs can offer.

Modern material choices offer aesthetically pleasing alternatives to traditional metal roofing, which boosts curb appeal and increases home value — attracting more buyers with deeper pockets. Let's take a look at the must-have features that homeowners really want in a metal roof to make your sales feel effortless.

Metal Roofing Offers an Energy-Efficient Alternative

Many homeowners are motivated to make energy-efficient housing decisions. Between environmental concerns, rising energy costs, and the allure of saving money — energy efficiency is becoming a leading concern in the home buying or remodeling process.

Metal roofing options can provide an energy-efficient alternative to traditional asphalt shingles because:

- They are lighter in color
- Metal cools more quickly
- Many manufacturers use reflective technologies in manufacturing
- Metal is typically installed along with additional layers of insulation.

Homeowners Love Low-Maintenance Solutions

It's rare to find a homeowner who enjoys giving up their weekends to tackle home maintenance. For many, it's a

necessary trade-off, but if given a chance to choose longer-lasting materials, those same homeowners are easy to convince.

Contractors can promote the low-maintenance benefits of metal roofs, which often last decades longer than traditional shingle roofs with little to no maintenance throughout the entire lifespan. While other homeowners are trying to juggle a roof replacement every 20 years, those with metal roofs are enjoying a little more financial freedom.

Metal Roofing is a Weather-Proof Solution Suitable for All Environments

Whether you're selling roofing materials in Tornado alley, the brutal winters of the Northeastern US, or along the Gulf Coast — metal is always a durable option. Contractors and material providers can lean into the weather-proof benefits of metal roofs, offering clients cost-effective protection against the strongest storms.

Metal roofing panels tend to have the highest durability ratings of any material on the market, outperforming even the highest-rated shingles for their resistance to high winds and damaging weather.

Metal Roofing Offers a Long Lifespan

A long lifespan is a big selling point in building materials. As you work with your clients to design their dream homes, you can add value to your services with metal roofing options that simply outlast other materials on the market.

For example, asphalt shingle roofs typically require tear-off and replacement every 20-25 years. By comparison, most metal roofs last at least twice that long. Typical metal roofing manufacturers offer a minimum of a 50-year product warranty. However, these roofs have lasted well beyond that mark, with many holding up for 70 years or more.

A long lifespan is good for a few reasons. For one, it saves homeowners a lot of money on maintenance costs over the life of their homes. And for two, the longer a roofing material lasts, the better it is for the environment. Over 50 years, many homeowners with traditional asphalt shingle roofs will pay to replace their roofs twice. And each time, the waste goes to the landfill. With a metal roof, you can offer your clients freedom from expensive maintenance costs as well as an eco-friendly alternative that can be recycled after it's removed from the home.

With Metal, Homeowners Get More Value

With the long list of benefits that metal roofs offer, contractors and suppliers that promote metal roofing materials are offering their customers best-in-class value that adds value to the home. That's right — the same great selling points that are behind the growing popularity of metal roofs for residential homes translate to higher resale values for those homeowners.

How does a metal roof translate to a higher home value? It's simple — buyers are willing to pay a little more for a home that will save them money with lower heating and cooling costs as well as fewer maintenance expenses. With a metal roof, homeowners have a big selling point that can help them get higher offers in less time. For contractors and suppliers, it helps to remind homeowners of the potential resale value when discussing material options.

Contractors Can Provide a Cost-Effective Roofing Solution

Metal roofing, which is typically made from cold-formed steel sheets, is a cost-effective building material. Not only does a metal roof offer decades of durable protection for any home in a wide range of environments, but it does so without a significant added expense.

Metal roofing products made from cold-formed steel can be mass-produced, significantly lowering the associated manufacturing costs. This means that even when manufacturers add reflective coatings and other performance-enhancing

technologies, metal roofing is still a cost-effective roofing solution for contractors and homeowners. And, at the end of the day, most decisions always come down to what's on the price tag.

Modern Metal Roofs are Aesthetically Pleasing

If you're still concerned about the salability of metal roofing for residential use, rest assured that modern metal roofing solutions are aesthetically pleasing. With more residential applications, manufacturers are catering to the demand for seamless, modern designs. For example, many homeowners are choosing standing seam metal roof panels that feature concealed fasteners for an attractive design.

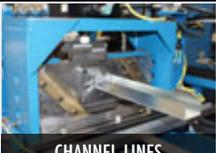
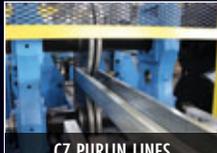
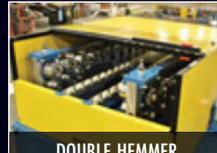
It's true, metal roofing was once primarily used in agricultural and industrial buildings. In those applications, looks aren't terribly important, so manufacturers tend to provide exposed fastener panels featuring corrugated designs. Today, modern solutions for residential homes offer much more variety, so homeowners don't have to worry about making their homes look like tool sheds. Some manufacturers even offer enhanced designs modeled to look like high-end shake shingles instead of flat metal sheets.

Conclusion

Metal roofing has become a popular choice in residential construction. It's a choice that's driving consumer demand. Now, many contractors have customers asking for building materials that offer an aesthetically-pleasing design with energy-efficient performance and low-maintenance upkeep. Metal roofing is offering a compelling solution that has become easy to sell, providing an easy way for contractors and suppliers to add value to their services. **MR**

Brian Haraf is the VP of Sales and Marketing at Metal Sales Manufacturing Corporation. With 21 facilities nationwide, Metal Sales manufactures metal roof and wall panels for the agricultural, commercial, architectural and residential markets since 1963.

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S-5! Reflects on 30 Years in Business

The company's story from the beginning

The beginnings of S-5! is a tale steeped in history. It all began in 1991. Rob Haddock had been a long-time contractor (and consultant) in the metal roofing and metal construction industry—having learned ground-up, straight from the trenches, all about erecting metal buildings and metal roofing. Throughout his contracting career, he was always innovating and discovering different and better ways to do things. He realized the attachment of anything to standing seam roofing without violating the integrity of the roof seemed impossible.

“People needed to put things on their roofs, but there just wasn’t a good way to do it,” said Haddock, S-5! CEO and Founder. “I began tinkering with ideas to solve this age-old problem. I got the idea to pinch and grip the seam in a clamping kind of way; using a block with a slot that would straddle the seam, like a saddle on a horse—I know something about that stuff.”

“I whittled my first prototype from a small block of wood,” Haddock continued. “Then I had a local shop make one from aluminum and tested it for holding strength. That baby hung on like country music.”



Harry Carner (left) and Rob Haddock. PHOTO COURTESY OF S-5!

Rejection Spurs Determination

After taking his prototype to four major metal construction companies most suited to take his invention to market successfully, every one of them turned him down. “There is no market for this kind of thing,” they said. He also took it to machine shops and was told production was impossible at an affordable price.

“I never thought about giving up,” said Haddock. “I just had to do it myself. I learned more about metals than I ever wanted to know; I learned more about manufacturing than I ever wanted to know; I learned more about marketing than I ever wanted to know.”

He then took it to the big building and roofing OEMs in the industry, only to receive more rejection. “We don’t want anything



Standing-seam clamp prototypes. PHOTO COURTESY OF S-5!

mounted on our roofs,” was the common response.

“Having worked in the industry for many years, I made some good friends—Kenny Buchinger, MBCI; Dick Bus, ATAS International; Mike Peterson, Peterson Aluminum; John Griffith, Mizel Brothers Insulation; and Angelo Borzillo (co-inventor of Galvalume®),” continued Haddock. “They were good friends to have because they all had their feet in the trenches and had been on a lot of roofs. They all encouraged me.”

Haddock said, “I remember John Griffith sitting by my fireplace.” He said, “You know what Haddock, I think you’ve got a game-changer here.” Kenny had the same reaction, and matter of fact he said, “I need some of these for a job right now!”

Innovation Meets Manufacturing

In 1993, Haddock met Harry Carner who had a decades-long tenure in the aluminum extrusion industry and manufacturer of all things aluminum. He was sold on the concept of adding value to extruded goods and a master of process manufacturing and fabrication.

He had been in management, frontline supervision in manufacturing, plant engineering, plant maintenance, and performing tool and die type work. Additionally, he had worked in aluminum smelters and in the production of raw aluminum—as well as everything else that has to do with aluminum production, be it anodizing, powder-coating, fixturing or machining-work. He always ended up in a position working for companies unable or unwilling to give him the equipment he needed to streamline manufacturing in a meaningful way.

The Twain Shall Meet

To manufacture his invention, Haddock took it to a company where Carner was the plant manager. For the next 18 years, Haddock kept innovating new things and teaching Carner more about how and why they are used within the metal roofing industry. Carner figured out how to manufacture them, and in turn, taught Haddock all about aluminum extruding and manufacturing processes.

Over time, the two innovators developed a relationship of mutual respect. They both had plenty of experience with their feet in the trenches—Haddock in construction and Carner in manufacturing. They were both pragmatic renegades—rule-breakers who challenged convention and status quo;—outside-the-box thinkers always looking for better ways to do things.

Innovation and Entrepreneurial Spirit Applied To Mass-Manufacturing for Economy

In 2011, the two innovators joined forces, bringing production of all S-5! products under one roof—to serve the metal roofing industry and to further spread their unparalleled expertise in developing clamps and brackets unequaled in holding strength, enhanced by innovative manufacturing techniques and unmatched in certified quality, performance, cost efficiency and real value.

Fast Forward 30+ Years

“Thirty years ago, it was taboo to attach anything to a metal roof,” said Haddock. “Standing seam metal roofing had been around for 1,200 years, and no one had ever come up with a good way to attach things like snow guards without compromising the roof’s integrity. S-5! precipitated a total paradigm shift.”

Fast forward to 2023. “Standing seam is now the most user-friendly roof type because it is so easy to attach things without penetrating the roof,” said Haddock.

Haddock’s “small idea” of using a block with a slot that would “straddle the seam

– like a saddle on a horse” has snowballed into a wide array of clamps and other innovations — ultimately becoming the S-5! family of products.

With all three of his adult children now in the family business, along with a team of professionals, a testing lab and its own ISO-certified manufacturing facility, the company continues to innovate solutions in a constant product improvement and invention/reinvention mode within the product category it originally created.

Iowa Park, Texas (northwest of Wichita Falls) is the home of the manufacturing plant. Under the supervision of Carner, vice president of manufacturing, the 74,000 square foot state-of-the-art facility is where millions of clamps and brackets start as simple extrusions and eventually get cut, deburred, machined, punched,



The S-5! manufacturing plant is located in Iowa Park, Texas (northwest of Wichita Falls). PHOTO COURTESY OF TEXOMA DRONE SOLUTIONS LLC.

packed and sent on their way to metal roofs in 70 countries worldwide from A to Z (Australia to Zimbabwe).

S-5! metal roof attachments can be found on more than 2 million roofs, including 6 gigawatts of solar arrays on some of the world’s notable buildings such as Costco, FedEx and the corporate headquarters for Apple, Google, IBM, NATO and NREL, not to mention 15,000 affordable residential solar installations. **MR**

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CPSC Reannounces Recall of Portable Generators

Additional Finger Amputation and Crushing Injury Reported; New Repair Kit Available

Generac has reannounced the recall (Recall number: 23-040) of Generac® and DR® 6500 Watt and 8000 Watt portable generators due to the condition that an unlocked handle can pinch consumers' fingers against the generator frame when the generator is moved, posing finger amputation and crushing hazards. The firm has received a total of 37 reports of injuries, 24 resulting in finger amputations and five in finger crushing.

This recall involves 6500-watt and 8000-watt Generac portable generators with unit type numbers XT8000E, XT8000EFI, GP6500, GP6500E, GP8000E and HomeLink 6500E portable generators, and DR models PRO 6500M and PRO 6500E portable generators. This recall also involves all of these generators listed above purchased after July 29, 2021 through November 3, 2022, containing a repair kit which included full cover handle guards. The generators have gasoline-powered engines that are used to generate electricity for use as backup power. The portable generators have two-wheels and a single, U-shaped, two-grip, flip-up pin-lock handle to help move the generator.

Consumers can check specific unit type, model number, and serial number location information at www.generac.com/service-support/product-support-lookup.

Consumers should immediately stop using the recalled portable generators, unless the locking pin has been inserted

to secure the handle in place before and after moving the generator, and contact Generac for a free repair kit consisting of a set of spacers to move the handle away from the frame, eliminating the pinch point. Customers who had responded to the original recall will automatically be sent a new kit.

About 321,160 units have been sold. (In addition, 4,575 were sold in Canada.) These portable generators were previously recalled in July 2021. They were sold at major home improvement and hardware stores nationwide and online, including Ace Hardware, Amazon, Blain's Farm & Fleet, City Electric Supply, Costco, Do it Best, Fastenal, Home Depot, Lowe's Stores, Napa Auto Parts, Northern Tool & Equipment, Orgill, Power Equipment Direct, Ravitsky Bros., True Value, and W.W. Grainger from June 2013 through June 2021 for between \$790 and \$1,480.

Gulf Coast Supply Expanding Manufacturing Plant in South Carolina

Gulf Coast Supply & Manufacturing LLC ("Gulf Coast Supply"), a supplier of metal roofing, recently expanded its manufacturing facility in Cayce, South Carolina.

The Cayce facility, located at 2105 Landmark Dr., is the newest manufacturing plant for the company and was a 2,500 square-foot space with limited trim production. Upon expansion, the plant will have a total of 9,500 square feet with a full trim shop and panel production, doubled fleet size of delivery equipment, and expanded flat sheet stock offering.

"The expansion of this location allows us to continue our growth in the Southeast and better aligns our services with our customers' needs in the Carolinas market," said Harry Yeatman, President of Gulf Coast Supply. "We can remain at the forefront of the metal roofing industry by providing outstanding customer service and quick turnaround times for both current and prospective customers."

The Cayce facility, Gulf Coast Supply's second manufacturing plant outside of Florida, services customers in South Carolina, North Carolina, Tennessee, and Georgia. The expansion will better serve manufacturing needs, sales and customer order pickups.

MFM Building Products Completes Expansion Project

MFM Building Products, a manufacturer of a full envelope of waterproofing and weather barrier products for the building industry, has recently finished a substantial Expansion Project that began in February 2021.

The thrust of the expansion project was adding 48,000 square feet to the production area and the acquisition of new production equipment to meet the rising demand for orders. MFM has been acquiring additional raw materials to ensure product availability for its customer base and the new facility now accommodates this additional inventory. The building, which was planned to be completed by the fall of 2021, was finished in June 2022 due to extended lead times for raw materials. The exterior portion of the facility was completed in November.

Other aspects of the expansion project included constructing new offices in the main headquarters building, and the addition of a new, state-of-the-art Research & Development laboratory for increased quality control and new product development. Once the production equipment is fully operational, the company expects to hire additional full-time employees.

According to company president Tony Reis, "We definitely had some setbacks with the current state of the supply chain, which caused some delays in the completion date. Now that we are finished, we are focused on meeting the needs of our customers and hope to be introducing several new waterproofing products to our portfolio. As an ESOP company, there is a lot of excitement among our employees as MFM continues to grow."

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S-5! Receives 2022 Metal Building Manufacturers Association Awards

Gold-Level Honor & Innovative Project

S-5!, the original inventor of engineered, manufactured, metal roof attachments, today was awarded the 2022 Gold Level Industry Advocate Award for outstanding service, participation and support of the Metal Building Manufacturers Association (MBMA) and the 2022 MBMA Innovation Project Award.

Accepting on behalf of S-5! were CEO and Founder Rob Haddock, his sons Shawn Haddock and Dustin Haddock along with S-5!'s solar expert, Mark Gies at the MBMA annual meeting and awards presentation on Dec. 7 in Ft. Myers, Florida. S-5! was awarded for its contributions of volunteer time, exper-



From left, Shawn Haddock, Rob Haddock and Dustin Haddock of S-5! receive the 2022 MBMA Gold Level Industry Advocate Award. Photo courtesy: S-5!

tise and advocacy of MBMA and the entire metal building industry.

Among the many companies who were presented with gold, silver and bronze awards, S-5! earned the number one spot

at the gold level and was recognized for exceptional commitment to promoting and enhancing MBMA initiatives, including participation in MBMA committees, advocacy efforts to enhance the metal building systems industry, attendance at MBMA educational and promotional events and safety program participation.

S-5! was also awarded the MBMA Innovation Project Award. Gies submitted an educational awareness campaign project focused on “Metal Roofing—the Perfect Platform for Solar Installations, Associated Costs Savings & Long-Term Return-on-Investment (ROI).”

“The main benefit of this project is added growth to the overall metal construction and metal roofing industry,” said Gies. “As contractors, building owners and all project stakeholders



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become more aware and educated about the benefits of metal roofing as a solar PV platform and as they understand the initial costs, lifetime costs and ROI and internal rate of return (IRR), they can make better choices about utilizing metal in construction and in roofing. And MBMA member businesses will benefit from this market growth.”

“We are honored to receive these awards and to be part of such an instrumental group of industry specialists and an organization that provides much-needed resources to those who work in metal building systems,” said Rob Haddock.

Construction Employment Up By 28,000 in December, Says ABC

The construction industry added 28,000 jobs on net in December, according to an Associated Builders and Contractors analysis of data released today by the U.S. Bureau of Labor Statistics. On a year-over-year basis, industry employment has risen by 231,000 jobs or 3.1%.

Nonresidential construction employment increased by 17,900 positions on net, with growth in all three subcategories. Nonresidential specialty trade contractors added 10,200 net new jobs, while nonresidential building and heavy and civil engineering added 5,800 and 1,900 jobs, respectively.

The construction unemployment rate rose to 4.4% in December. Unemployment across all industries declined from 3.6% in November to 3.5% last month.

“This employment report indicates that contractors collectively remain in expansion mode despite rising costs of capital and fears of recession,” said ABC Chief Economist Anirban Basu. “Consistent with upbeat assessments of construction activity late last year, nonresidential contractors continue to ramp up staffing in the context of elevated backlog. In ABC’s Construction Confidence Index, contractors indicated

that both sales and employment would continue to rise over the next six months.

“There was additional good news emerging from the overall U.S. economy,” said Basu. “Though the labor market remains strong and job creation persists, there are indications that wage pressures are easing. Nonetheless, the Federal Reserve will continue to raise interest rates to restore inflation to its 2% target, with the implication that a recession remains a real possibility in 2023. Based on historical precedent, that could produce more challenging times for contractors in 2024 and/or 2025.”

Bill Sharpe Joins Malco Products, SBC, Board of Directors

Malco Products, SBC, one of the nation’s leading solution developers and manufacturers of a variety of high-quality tools for the building trades, has announced that Bill Sharpe was appointed to its board of directors.

Sharpe is a co-founder of Pathfinder Companies and Pathfinder Consulting, a Minnesota-based, privately held investment and advisory firm that provides long-term capital to privately-held family and entrepreneurial companies. His leadership experience and corporate strategy roles in mergers, acquisitions and investment banking spans three decades.

Sharpe currently holds three corporate board positions across a variety of industries. He received his undergraduate degree from the University of Minnesota and his MBA from the J.L. Kellogg Graduate School of Management at Northwestern University.

“We are very fortunate to have someone with Bill’s strategic growth experience and knowledge joining our board of directors,” said Rich Benninghoff, Malco president and CEO. “His deep expertise across many types of transactions and industries will bring a unique perspective to our board, and will be a tremendous resource for us

as we move forward with our strategic planning and execution.”

Sheet Metal Supply, RHEINZINK Win MCA Design Award for Residential Roof

Sheet Metal Supply Ltd. and RHEINZINK were among the winners in the Metal Construction Association (MCA) Design Awards presented at METALCON in Indianapolis in mid-October.

Sheet Metal Supply and RHEINZINK partnered to deliver the roofing and façade for a private retreat that includes five cabins on the forested shores of Lake Huron to win the Residential Roofing category.

The zinc panels provide a weather-resistant, self-healing and corrosion-resistant material that remains 100 percent recyclable at the end of its useful life.

The program recognizes MCA member companies who contributed products to 10 award-winning buildings. All projects highlighted the use of metal to enhance the design of the building.

Reibus International Wins the 2022 Platts Global Metals Rising Star Award

Reibus International, an independent digital marketplace for industrial metals, was named the Rising Star Company at the 2022 Platts Global Metals Awards, held in London UK on October 27. In its 10th year, the Awards program recognizes exemplary performance across the metals and mining arenas.

“Stakeholders in the metals industry need different and better methods of solving problems so that they can grow and succeed despite today’s volatile global supply chain,” said John Armstrong, Founder & CEO at Reibus. “That is why we’re bringing together the best and brightest technologists with industry experts, to help solve long-standing challenges in the metals supply chain.” **MR**

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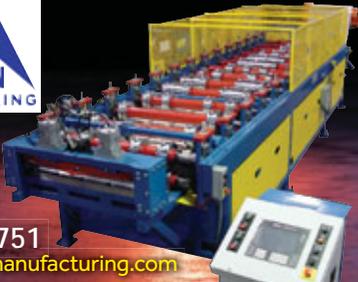
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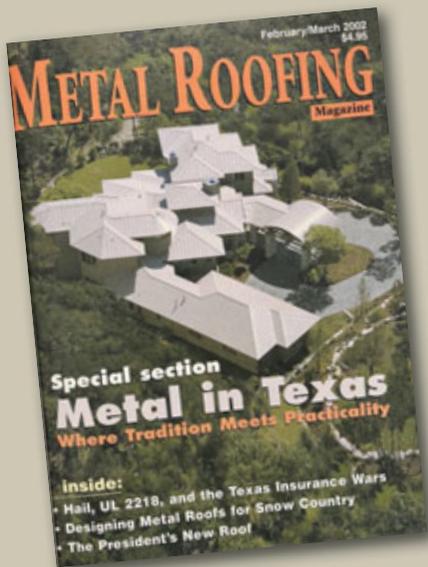
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This article was originally published in the February/March 2002 edition of *Metal Roofing Magazine*.

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.

If you have a metal roofing project on an historic building, we'd love to see it, and share it with our readers! Forward all the information you have about the materials used, challenges faced, and a few hi-res photos to Karen Knapstein, karen@shieldwallmedia.com.

In the meantime, enjoy a bit of metal roofing history!

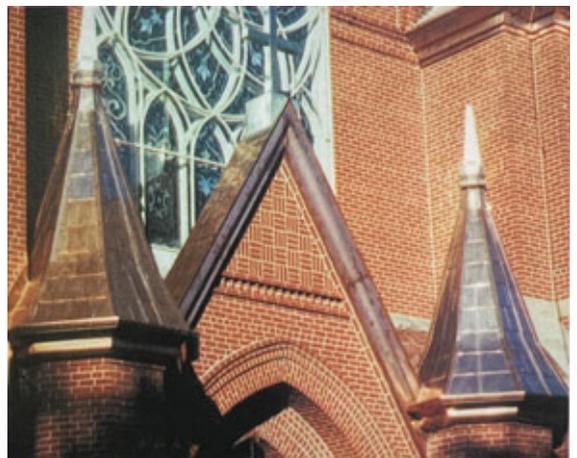
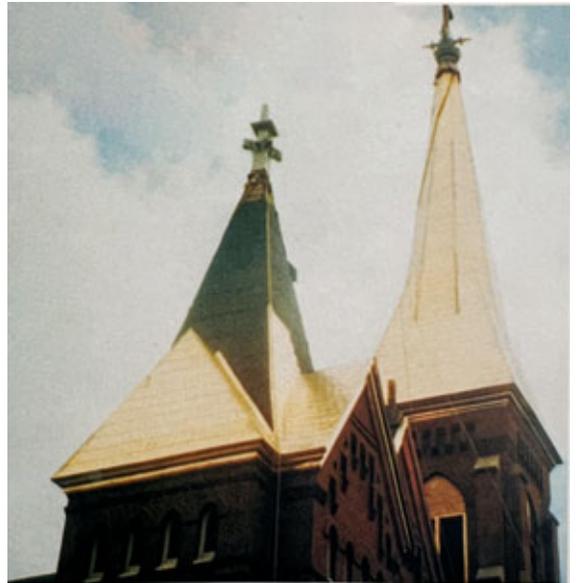
Climbing the Midwest's Copper Mountains

Tired of the roofing rat race? Try Larry Krause's trade. Sure, he's spent hundreds of hours over the past 38 years dangling from ropes hundreds of feet off the ground. His jobs often don't amount to more than a few dozen squares. But his clients are a select group who pay on time, who network like crazy, and whose buildings are constantly admired from afar.

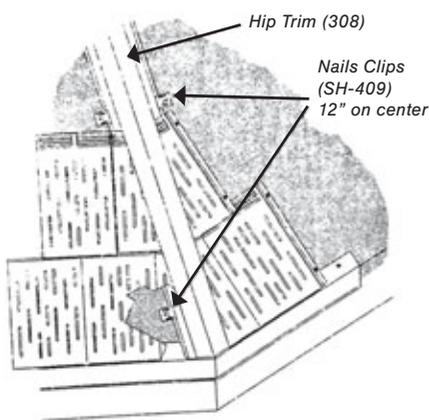
Larry is the founder and owner of Krause Konstruction Inc., based in the town of Stoddard, Wisconsin, near the Minnesota border. The business fills a unique and profitable niche in the roofing industry — church steeple remodeling and restoration. His consistently high-quality work and solid reputation have made him one of the upper Midwest's most sought-after roofers, booked for months in advance.

Steepling usually means working with copper, and on steeples that means shingles, since steeplejacking and long panels don't go well together. Krause exclusively uses the Chateau Slate shingles, manufactured by Classic Products, Inc. of Piqua, Ohio. Chateau Slate comes in 16-oz. copper and in Kynar-coated aluminum or steel, and features an interlocking design and straightforward installation. "I've done this for 38 years and even the 28 years I've been in business, it's the best product I've found to put on steeples."

On the rest of the roof, Krause uses a variety of materials, but still tries to push copper. The company has its own standing seam roll-forming machine, so when the need arises, Krause simply buys rolls of copper from Copper Sales, Inc. of Minneapolis and fashions panels on site. Copper usually isn't a hard sell for churches. "For the



The shingles give a hand-worked but finished appearance.

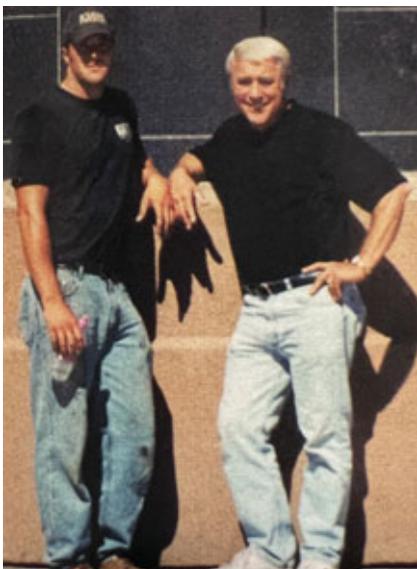


The Chateau Slate hip detail, from *Classic's* installation guide.

most part, the churches really want to go with copper, says Larry's 27-year-old son Jason.

Steeple work is very labor intensive, "so you might as well go with a product that we know is going to last 100 to 120 years. Larry actually charges a little bit less for labor when the project involves copper as opposed to a project in which aluminum is installed. The reason: "If you make a mistake with an aluminum shingle, you throw it away. For the most part, if you make a little mistake with copper shingle or a copper roof, you put in little pieces and patch it together and solder it in."

We push copper by far more than aluminum, ten to one."



Larry and Jason Krause.

The first step in a typical steeple job, after estimating, is to check the structure's base. Old steeples often have rotten corners, and Krause has seen steeples fall — thankfully without injuring anyone. One rotten corner he'll repair; two or more is questionable. Several times he's built steeples from scratch, roofed them on the ground, then lifted them into place with a crane.

If the structure passes muster, ropes are then set up. Sometimes this involves his 150-ft. crane. Other times his workers get access from inside and punch a hole in the steeple to secure a block and tackle. Ladders are installed as needed, and a bosun chair is set up for the roofer's comfort. "You can sit in them for hours," says Larry.

Krause always strips his steeples of old material, whether shingles, shakes, slate, or asbestos tiles — his company is certified for asbestos work. He fixes rotten deck areas, then decks everything in Grace Ice & Water Shield before installing the Chateau Slate Shingles.

Steeple usually have lightning rods, with long wires running down the outside of the roof, and these must be carefully disconnected and reconnected. Krause consults with Thompson Lightning Rod Equipment in St. Paul, Minnesota, on every job, but his company handles the work of reinstalling the devices.

Krause began his career at age 16, working for a German company that specialized in church refurbishment. He learned tuck-pointing (brick and mortar repair) and roofed in slate, tile, and metal. Particularly valuable were the Old World metal folding and soldering techniques often avoided by American roofers.

After ten years of working on steeples and churches across the Midwest, Larry left to form his own company. Since grossing \$80,000 in its first year, Krause Konstruktion has grown to a nearly \$1.5 million-per-year business, with an additional \$3 million in work already booked through next summer [2003].

Krause employs 12-15 workers, including son Jason, who began with the



St. Augustine's in Austin, Minn., got the works: new copper shingle cladding for its steeples and a new copper standing seam roof.

company at age 14. The company has a very low turnover rate, and has been able to keep some employees for more than 25 years. The key to finding the right employees for steeple work, says Larry, is to "take them as young kids with no fear. You gotta teach them young when there's no fright there."

But he never pushes employees to go up top. "We take new people and set up the chair a few feet off the ground, let them play around as long as they want. Eventually they want to do it."

Krause Konstruktion has no web site and does no advertising; business comes in entirely through word-of-mouth testimonials. And the clergy, it seems, are a talkative bunch. Larry has made it a point to get to know nearly every cleric within a 300-mile radius. "We turn down as much work as we do, says Krause. "If we could find the help, we could double our business overnight. It hurts when you have to turn down jobs."

[They now can be found online at <http://www.krausekonstruktion.com/>] **MR**

Exit Planning

Is an ESOP a good fit for your business?

By Metal Roofing Staff

Upon exiting a business that has taken a lifetime to build, it's disappointing to turn over a large portion of its value to the IRS. Fortunately, if a business meets certain criteria, an employee stock ownership plan (ESOP) can provide the exiting owner with attractive benefits. It can also provide the new owners (employees) with benefits that make the business more successful. Here, we'll take a look at what an ESOP is, the benefits of the plan, and what makes a company a suitable candidate for an ESOP.

The ESOP, as defined in the IRS code, is a structure that allows employers to share ownership in a company with employees. The ESOP can purchase any percentage of the business.

Scott Eichler, an investment advisor with Standing Oak Advisors and author of *Don't Play Chicken with Your Nest Egg*, explains the benefits of opting for an ESOP plan upon exiting a business: "If a business owner chooses an ESOP, the IRS offers attractive benefits. For example, it allows the business owner, when selling the business internally to employees, to defer taxation of the sale of the business."

If the business owner's intention is to sell the business and invest the money earned from that sale, the immediate benefit is the tax deferral on the sale. "There's more to the sale of a business than how much you sell the business for," Eichler continues. "The more important question is: How much do you get to keep after the sale of the business? There's a time value of money. If you lose a big chunk [of the sale amount] to taxes, the time value of money is greatly diminished; you don't have as much to build a retirement income."

Rather than paying the taxes on the earnings from the sale, when the business is sold to an ESOP, the money is invested, it grows, and is reinvested. Taxes are paid on the income from the investments. By deferring tax payments, it gives the former business owner the opportunity to build wealth faster and the chance to take a bigger income throughout retirement.

There are additional benefits, too. "ESOP is conjoined with a lot of agreement pieces and protections in case something happens," Eichler adds. "This is making sure that 1) You get bought out, and 2) your family is taken care of in case something happens to you."

Benefits for Employee-Owners

Often, a construction business is all about relationships, so a lot of business owners have a hard time selling their business

to a third party. "You have to find someone with synergy who knows the existing clients and have a reasonable degree of trust." Just because you're doing a certain level of business each year doesn't mean that will continue after the sale. Most companies don't have proprietary construction techniques — they have relationships. It's those relationships that are the foundation on which a business's ongoing success is built. Being able to transfer those relationships takes time and is not easy. "It's an easier transition if you can sell to an employee who has the same business relationships that you do."

Once ownership of a company is transferred to an ESOP, employees now working for themselves. If employee-owners understand how the company makes money, and their individual role in making that happen, they have a real buy-in in the success of the company. According to the NCEO, "Companies that have these high-involvement, idea-generating cultures, generate an incremental 6% to 11% added growth per year over what their prior performance relative to their industries would have predicted." Therefore, the ESOP-owned company is more successful and the employee-owners reap more rewards.*

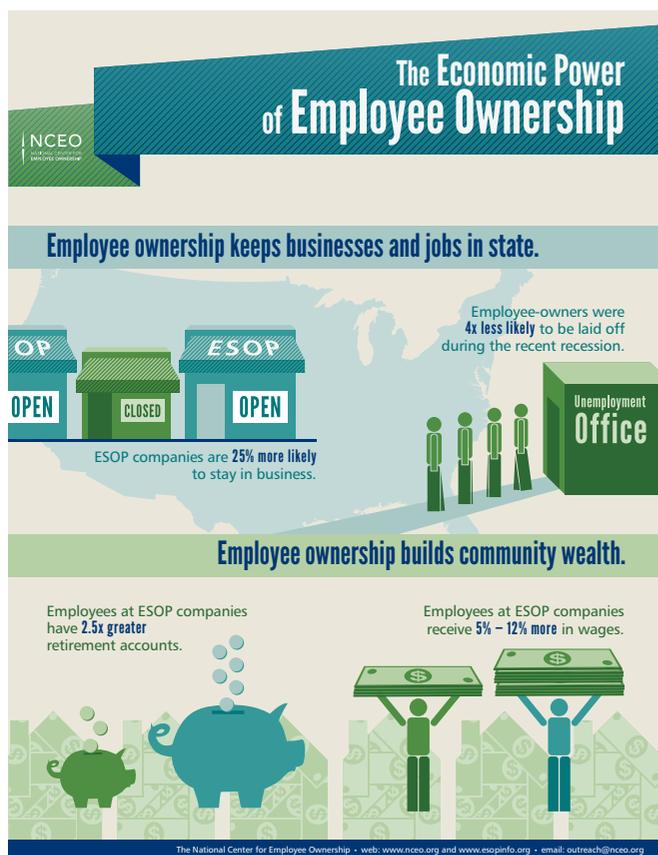
Is ESOP an Option?

First and foremost, the corporate structure must be considered. According to the IRS, for companies to be ESOP eligible, they must be C corporations, S corporations, or LLCs taxed as a C or S corporation.

Even if a company has one of these structures, there are situations when an ESOP is not a feasible option. Companies must have sufficient profitability to pay the added expense of buying out one or more owners. Eichler said if the company isn't generating at least \$1.5 million in EBITDA, it's not a viable option.

Because of the substantial setup costs, ESOPs generally don't work for companies with fewer than 15-20 employees. According to the National Center for Employee Ownership (nceo.org), ESOPs generally cost between \$100,000 and \$300,000 to set up. Fees include feasibility studies, plan documentation, valuation, trustee fees if using an outside trustee, plus any corporate legal fees and personal financial advisor fees for the seller. The cost can increase in larger and complex deals.

Another thing to consider is the leadership structure. There's a good chance the seller(s) holds a key corporate role, so the business must have a management team in place. "There needs to be a group of two or three people that can do sales and operations, and essentially manage the business the way the owner does," explains Eichler. "They need the ability to manage people."



Planning for Success

An ESOP requires a lot of planning. “If you’re going to retire, and your plan is to sell your business in 20 years, you don’t have to do anything right now,” Eichler says. “But it’s a good thing to start the discussion. The more time you give a financial planner, the better. Don’t put it off. Have a discussion and decide at a very basic level if it’s an option for you.” A 30-minute conversation with a financial planner “can be a really good use of 30 minutes.”

He says an ESOP can be achieved in five years, but there is little room for error. “This is not a quick-buck strategy,” he says. “This is time, thought, and work.”

Eicher notes there are six overview steps for setting up an ESOP:

Step 1: Make sure all the owners are on board or at least open to listening. “Someone who is very resistant in the group really puts a fly in the ointment,” Eichler says. “You have to make sure everyone is willing to discuss ESOP as an option and the waters are smooth before jumping into the pond.”

Step 2: Feasibility study. “I recommend creating a feasibility study for the current owner. It can be done in-house if you have a quasi-CFO, CFO, or controller getting up to the CFO level. But the recommendation I make to a lot of my contractors (ones who have 50-60 employees) is that they find a firm that that’s what they do.” That firm can, with impartiality, compare and contrast different options (i.e. ESOP, private equity, merger &

acquisition) to determine the best exit strategy for the owner. “As much as ESOP is a great tool, it’s a tool so it has to be applied precisely in the right place.”

Step 3: Valuation of company stock. “Whoever does the valuation for feasibility should not do the valuation for company stock,” Eichler advises. “A trustee of the ESOP should value the company stock because they’re doing it on behalf of the future ESOP owners.”

Step 4: Attorneys draft a plan. It’s up to the attorneys to draft a plan between the current owner and future owners. “No one but an attorney who has experience drafting ESOP plans should do it,” he cautions. “If something goes wrong, the attorney’s Errors & Omissions insurance plan would cover it.”

Step 5: Fund the plan. An ESOP can be funded through traditional banks, loans for the purpose of establishing an ESOP, private parties, or even income from the company itself. “When you get to this step, you’ve already decided how to fund the plan – it’s just a matter of doing it,” he says. “After the first five steps, you have an ESOP.”

Step 6: Maintain the plan. This step is the most important. “Maintaining the plan includes oversight, compliance with the IRS and reporting to the IRS. You have to do this to maintain your preferential treatment as an ESOP.”

What Comes Next?

“I always encourage my initial owners (selling owners) to make sure they’ve got a plan for what to do with the money they receive from their business. You want to design something,” he advises. “If you’re going to retire, what are you going to do next? You want to make sure you’ve got something going for your next phase of life.”

“I’ve seen people who don’t have a plan,” he continues. “Their health degrades quickly and they pass away sooner than they should. And a lot of people end up not doing fun things because they’re worried about running out of money. Have a plan.”

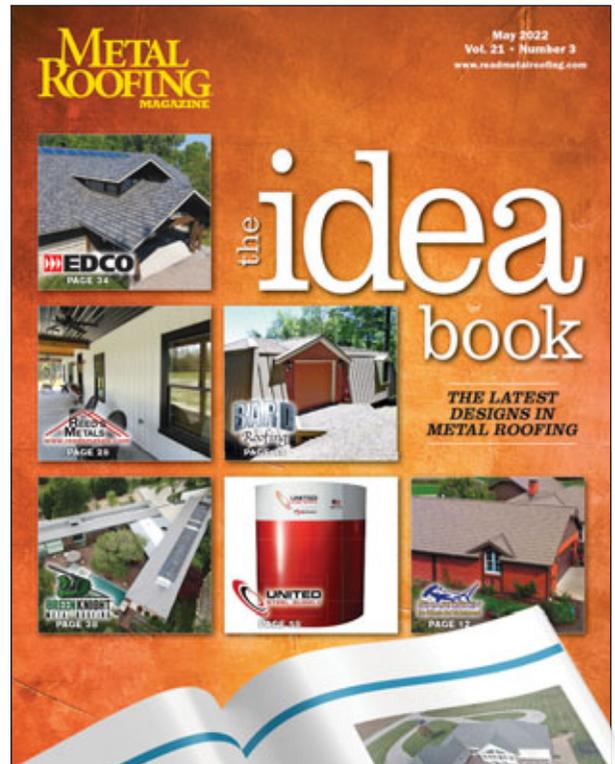
Conclusion

ESOP is a very structured yet flexible system to transfer wealth with a minimal tax effect. Over the last 20 years, they’ve become much more known in the financial industry. However, Eichler estimates only about 11% of contractors use ESOPs. You may ask, “If ESOP has so many benefits, why isn’t it used more by companies that fit the profile?” Eichler explains: “ESOP requires some forethought. Valuation metrics and factors need to be looked at to make sure this tool applies. If something is a little more difficult, it gets used a little less.” **MR**

**Preparing the employee-owners shouldn’t be overlooked. “You have a whole bunch of employees becoming owners and they’re not really aware of how to do that. You want to make sure they’re well prepared for this chapter of their life,” advises Scott Eichler, investment advisor with Standing Oak Advisors.*

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In addition to advertising opportunities, **The Idea Book** offers the chance to show everyone what you can do as a roofer or supplier. If you have a nice metal roofing project you'd like considered for inclusion, we're looking for finished projects, with information about the building, the roof, and the products used in its construction. If your project or product makes it into the magazine, you'll have bragging rights for all your promotional materials!



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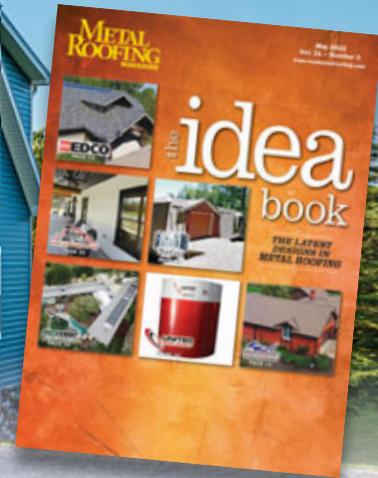
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**PROJECTS DUE
FEBRUARY 15, 2023**



The *Idea Book* is published by the team at *Metal Roofing Magazine* and mailed to more than 27,000 subscribers.

PHOTO COURTESY OF RED DOT



Do you have a special building project to share? Show readers what you can do!

We are on the hunt for special building projects to be considered for inclusion in our annual Idea Book.

The Idea Book is a special issue of *Metal Roofing Magazine* that features unique projects ranging from equine facilities to courthouses, schools to residential houses. The publication is sent to *Metal Roofing Magazine* subscribers, as well as distributed at industry trade shows.

The Idea Book will take into consideration: projects featuring metal as the main roofing material, to serve as inspiration for architects and builders.

What we are looking for from you is your best project, preferably one that has not already been featured in an industry trade magazine. If your project is chosen, you can use it as bragging rights to show prospective customers!

Feel free to contact us with any questions.

Thank you in advance!

**PROJECTS DUE
FEBRUARY 15, 2023**

Please fill in all fields relevant to your project or scan QR code below to fill out electronically and send completed form to:

Karen Knapstein at karen@shieldwallmedia.com



What we need:

PHOTOS OF THE COMPLETED BUILDING
at least 3-4 photos (high resolution: 300 dpi)

For tips on great building photos read Jeff Huxmann's article:
<https://garageshedcarportbuilder.com/how-to-take-great-shed-photos/>

ALSO NEEDED ARE THE FOLLOWING DETAILS:

Your Company Name: _____

Website: _____

Building type (home, school, etc.): _____

Roof size: _____

Location: _____

Architect: _____

Contractor(s): _____

Installer(s): _____

Roofing system manufacturer (if applicable):

Roof panels: _____

Coating: _____

Ventilation: _____

Fasteners: _____

Snow/rain management: _____

Underlayment: _____

Insulation: _____

Other: _____

PRODUCTS USED

General description of the project:

(what did the customer want; what special elements set it apart; etc.)

GENERAL DESCRIPTION

MRA Announces ‘Best Residential Metal Roofing Projects’

Roofs in Washington, Texas announced as winners



C&C Roofing, NU-Ray Metals named winner of MRA's Best Residential Metal Roofing Project competition for the third quarter of 2022.
PHOTO COURTESY OF THE METAL ROOFING ALLIANCE/C&C ROOFING.

The Metal Roofing Alliance (MRA) has selected a remarkable new home construction project located in Kennewick, Washington, as the winner of its Best Residential Metal Roofing Project competition for the third quarter of 2022.

The project, which was completed by C&C Roofing out of Hermiston, Oregon, features a beautiful mechanical seamed metal roof in a rich dark gray color that is the crowning touch on a stately 7,000 square-foot home. Manufactured by NU-Ray Metal, the quality 22-gauge metal roof promises to be extremely long-lasting, durable and low maintenance, protecting the home from the region's extreme summertime heat and cold winters, and providing the home-

owner with exceptional peace of mind for many years to come.

C&C Roofing also was able to skillfully overcome the challenging details of the complex project, including the fact the three month-long installation began in the winter when there was more than four feet of snow on the ground.

“This project represents a quality metal roofing job all the way from the materials selected and the experienced, professional installation, right down to the beautiful end result,” said Renee Ramey, MRA executive director.

As a first for MRA's Best Residential Metal Roofing quarterly competition, the organization also selected a runner up winner for Q-3. A Unified Steel

stone coated metal roofing project in Southlake, Texas that was installed by Metal Master Roofing in Burleson, Texas, earned recognition for a complex roof project with a beautiful end result.

About the MRA

Representing metal roofing manufacturers in the United States and Canada, the Metal Roofing Alliance (MRA) was formed to help educate consumers about the many benefits of metal roofs. The main objective of MRA is to increase awareness of the beauty, durability and money-saving advantages of quality metal roofs among homeowners, as well as to provide support for metal roofing businesses and contractors. [MR](#)

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new products
BY RURAL BUILDER STAFF



BOR-MAX SERIES EARTH AUGERS
General Equipment Company has introduced the 2300 Bor-Max Series earth auger products. These augers are specially designed to drill holes in all brands and pump caps. The major safety features include a locking C-Clamp with Swivel Pads, Locking Sheet Metal Sealers, LP10VC (curved versus leading wire cutter) versus leading traditional locking pliers, Eagle Grip in the headwear, and begins to lock inside the auger. Each auger is made of high-strength steel and is backed by a lifetime satisfaction guarantee.
www.geogripusa.com

NEW PRODUCTS

Dust Goggles from Brass Knuckle
Brass Knuckle Grashopper (BKDST-1010N) dust goggles spectacle offers versatility without sacrificing comfort. A soft, comfortable EVA foam dust filler with built-in air channels fills the gap between glasses and the face, keeping dust out. The filter also easily removes, transforming Grashopper into standard protective eyewear.
Lenses are durable polycarbonate, meet or exceed ANSI/ISEA Z87.1-2020, and are manufactured with a fog coating. N-Fog anti-fog coating shows its anti-fog capability exceeds the world's most stringent anti-fog standard — European EN 166168 — lasting 15 times longer.
This high degree of fog protection makes Grashopper perfect for jobs requiring workers to migrate between widely varying temperature extremes that make fogging eyewear an occupational hazard.
The sporty European design features a stylish, wraparound lens for an unobstructed field of vision. Bend-and-dart-break flexible thermoplastic rubber (TPR) grass green temples provide hypoallergenic, non-slip comfort, adapting to any facial profile without distorting optics. Grashopper is also fully dielectric (no metal anywhere).
www.brassknuckleprotection.com

Hi-Visibility Jackets from Pyramex
Pyramex Winter Workwear jackets are designed to be highly functional when in the field. They have features that provide the protection you require from both a safety standpoint and against the elements.
According to the United States Bureau of Labor Statistics, more than 20,000 work-related injuries, deaths or snow in 2017. Experts agree key factors in staying safe when working outdoors in the winter include dressing the part and being visible.
The RCTP35 Series waterproof, hi-vis jacket has both an outer parka and inner jacket. Constructed of highly resilient orange and black material, the outer parka has a quilted lining and black material on the bottom and at the storm cuffs. With straps to hold the inner jacket in place, the jacket has a bevy of features including heavy-duty zipper front closures with snap storm flaps, a concealed detachable hood with a drawstring and plenty of inner pockets. The jacket is rated to ANSI Type R, Class 3 and water pockets. The jacket is rated to ANSI Type R, Class 3 and water pockets. The jacket is rated to ANSI Type R, Class 3 and water pockets. The jacket is rated to ANSI Type R, Class 3 and water pockets.
The RPB36 Series jacket (shown) features a time Teflon™ treated waterproof, hi-vis rip stop polyester shell. The jacket has both an outer parka and an inner fleece jacket. Keep the cold out with elastic bands at the wrists, and drawstrings around the bottom. The outer parka has 8 outer and 2 inner pockets, while the inner hi-vis polyester fleece has 2 outer and 2 inner pockets. The RPB36 Series jacket meets ANSI Type R, Class 3 safety standards.
The RPB3511 Series jacket has a waterproof black background rip-stop polyester shell that is Teflon™-treated and has 2" non-rip-stop polyester reflective material. Built tough, the jacket has all heat-sealed seams, a dual zipper front closure with a hook and loop storm flap, and a concealed detachable hood with drawstring and slack adjustment. A soft quilted interior keeps you warm along with elastic bands at the wrist and drawstring around the bottom to keep you dry. The RPB3511 Series jacket is safety tested to meet ANSI Type O, Class 1 and ANSI/ISEA 107-2015: ATCC 127 Waterproof standards.
www.pyramexsafety.com

Cordless Finish and Trim Nailers from Senco
KYOCEKA Senco Industrial Tools (Senco) is the industry leader in fasteners and fastening systems, has updated its cordless finish and trim nailers, the company announced. The new F-15XP 15-gauge finish nailer, F-16XP 16-gauge finish nailer, and F-18XP 18-gauge brad nailer are available through Senco distributors.
The new tools feature Senco's patented FUSION Cordless Pneumatic Technology and maintain the feel and performance of a true pneumatic nailer. However, they have been re-engineered to be more robust, powerful and ergonomic, as well as easier to use and repair than previous generations. Each new Senco cordless tool includes an air valve that allows the tool to be quickly and safely depressurized. The internal components can be easily removed and rebuilt, and the tool can be repressurized through the air valve.
"The new FUSION finish and trim tools were designed to be service-center friendly with easy access to internal components, so they are even more like a traditional pneumatic tool now than they were before," said Eric Bellman, Senior Product Manager. "While new cordless tools can be serviced at any authorized Senco service center, allowing for faster repairs and less downtime." Each new cordless finish and trim tool powered by FUSION technology comes with a 1.5Ah battery and a quick charger. They are also a durable storage bag and a 5-year warranty. They are also compatible with Senco's 3.0Ah batteries included with the company's DURASPIN auto-feed screwdrivers and FUSION cordless framing nailers.
www.senco.com/fusion

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Natick Protective Coatings (NPC) has introduced PERMAKOTE™ metal roof acrylic roof coating designed to work on high-build formula that possesses acrylic waterproofing technology. It also qualifies for a Class A fire rating, test as per ASTM F1964 PERMAKOTE™ Metal Roof Paint and Elastomeric Caulk options provide 15 year warranty.
www.natickwidecoatings.com
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project of the month



Missouri: Elementary School Roof Built To Pass the Test of Time

The Wentzville School District has been the fastest-growing school district in Missouri for the past decade, averaging more than 600 new students a year. Demographic data indicates that the number of pre-kindergarten children is expected to increase in the district for at least the next 10 years. It's fair to say New Journey Elementary School was born out of necessity.

"This elementary school is a prototype that started back in 2004 to accommodate the growth in the district," says Matt McDermott,

Project Manager at Hoener Associates Inc. of St. Louis. "Journey Elementary School is the eighth prototype school to be built for the Wentzville School District.

"Standing seam metal roofing was used to allow the district to have a long-lasting roof and minimize maintenance for their team," says Mark Reuther, Project Principal at Hoener Associates. "The metal roofing allows for various colors to be chosen for each of their schools for identity and longevity. This roof will last well over 50 years."

Reuther says the school's main entry colonnade is the eye-catching feature, with its brick columns and metal roof. "It identifies the main entrance, provides a stacking place for students during drop-off and pick-up. The lower metal roof over the colonnade clearly identifies the entry point of the school for parents, students and visitors."

Joiner Sheet Metal & Roofing of Highland, Illinois, had a crew of 8-10 working on the project for several months, installing 82,000 square feet of McElroy Metal's 24-gauge

Project Overview

Location: Wentzville, Missouri

Roof Size: 82,000 sq. ft.

Architect: Hoener Associates, Inc., St. Louis, Missouri

Installer: Joiner Sheet Metal & Roofing, Highland, Illinois

Roof Panel: McElroy Metal Medallion-Lok SSMR, 24 ga., 16"

Coating: Sherwin-Williams Fluoropon PVDF

Soffit: McElroy Metal Matrix panel, 13,400 sq. ft. Bone White, 24 ga.;
6,200 sq. ft. Brite White, 29 ga.

Fascia: McElroy Metal FW Series, 6,500 sq. ft. Regal Blue, 24 ga.

Gutters: Regal Blue 7" box gutters, 2,300 sq. linear ft.



Medallion-Lok 16" standing seam metal roofing. Medallion-Lok features hidden clips and a 1-3/4" snap-together seam which eliminates the need for jobsite seaming.

The color chosen for this project was Sherwin-Williams Fluoropon PVDF

Regal Blue, stucco embossed. Joiner also installed 6,500 sq. ft. of 24-ga. FW Series in Regal Blue for the fascia and 19,600 sq. ft. of McElroy's Matrix panel for the soffits (13,400 sq. ft. in 24-ga. Bone White and 6,200 sq. ft. of 29-ga. Brite White).

McElroy Metal also supplied 700 24-ga. flat sheets (650 in Regal Blue and 50 in Bone White).

"It wasn't a difficult job, but it was a big job," says Joe Hamel, project manager for Joiner Sheet Metal & Roofing. "The worst part was getting through the knee-deep springtime mud. We were able to stay on schedule and get it done on time."

The slope at the main entrance was 4:12 and the rest of the roof was 3:12. The longest panels measure 44' 8".

Joiner also installed the soffits and fascia in Regal Blue as well as 2,300 square linear feet of Regal Blue 7" box gutters, formed with the company's own New Tech Machinery gutter machine. **MR**



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CHECK WHICH TITLE APPLIES TO YOU:

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 Owner
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 Sales Manager/Rep
 Engineer/Architect
 Vice President
 Foreman
 Installer
 Other _____

PLEASE CHECK THE PRIMARY CATEGORY THAT DESCRIBES YOUR BUSINESS:

- Builder, Dealer, Remodeler or Installer
 Roofing Contractor
 Metal Roofing Contractor
 Building Material Dealer/Distributor
 General Contractor/Remodeler
 Manufacturer/Rep of Manufacturer
 Architect/Specifier
 Construction Consultant/Engineer
 Building Owner/Developer
 Other (Please Specify) _____

SELECT A MAXIMUM OF 5 COMPANIES TO REQUEST INFORMATION FROM:

Company Name: _____ PAGE: _____

ENGAGED IN THE FOLLOWING APPLICATIONS:

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MR FEB/MAR 2023

CSI: How did Metal Roofing Subscribers, Metal Roofing Contractors and Roofing Contractors in General do in 2022 (compared to 2021)?

The numbers between Metal Roofing Subscribers and Metal Roofing Contractors are very similar. Metal Roofing Subscribers appear to have slightly lower increases in gross sales and units sold, but comparable profitability.

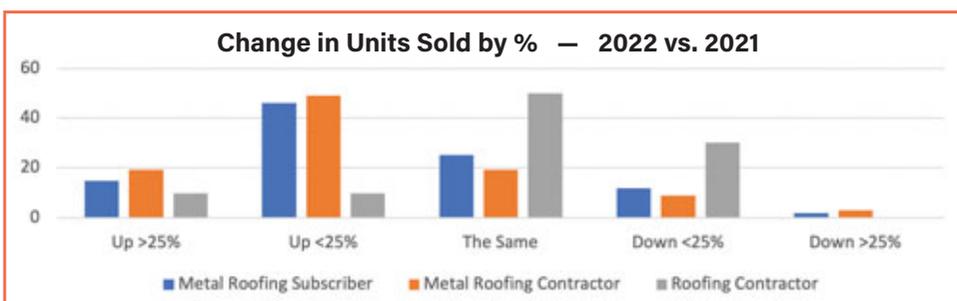
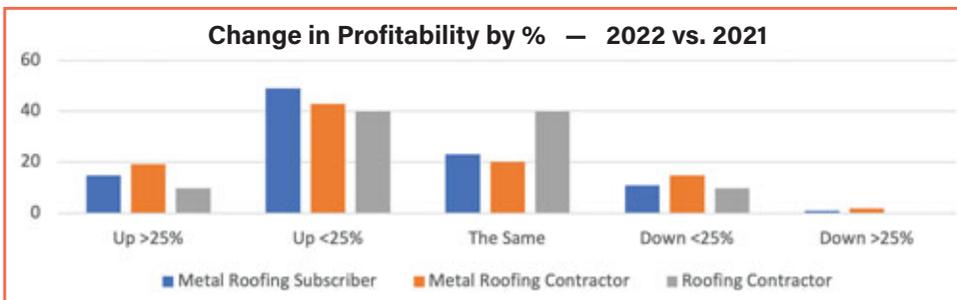
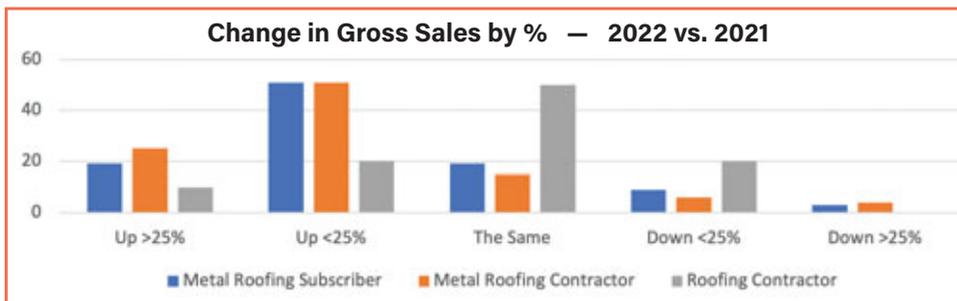
General roofing compared to metal roofing has more significant differences. It is possible that some of the difference may be an anomaly because of the smaller sample size for businesses self describing as primarily Roofing as opposed to Metal Roofing. Roofing had more “stayed the same” or “decreased” in units sold and gross sales. Metal roofing showed a greater increase in units and gross sales. So the demand for metal appears stronger than general roofing.

Profitability is similar between both but slightly lower for general roofing. **MR**

Gross Sales	Metal Roofing Subscribers	Metal Roofing Contractors	Roofing Contractors
Up significantly	19%	24%	10%
Up somewhat	51%	51%	20%
The same	19%	15%	50%
Down somewhat	9%	6%	20%
Down significantly	3%	4%	0%

Units Sold	Metal Roofing Subscribers	Metal Roofing Contractors	Roofing Contractors
Up significantly	14%	19%	10%
Up somewhat	46%	49%	10%
The same	25%	19%	50%
Down somewhat	12%	9%	30%
Down significantly	2%	4%	0%

Profitability	Metal Roofing Subscribers	Metal Roofing Contractors	Roofing Contractors
Up significantly	15%	19%	10%
Up somewhat	49%	43%	40%
The same	23%	21%	40%
Down somewhat	11%	15%	10%
Down significantly	1%	2%	0%



Looking for a **metal roof** that won't leave you twisting in the wind?



WE'VE GOT YOU COVERED!

ProVia's Metal Roofing System is third-party tested and approved in Florida, meeting TAS 100, 110, and 125 requirements. Our stamped panel metal roofing system is certified for High Velocity Hurricane Zones in Miami-Dade and Broward counties and for Non-HVHZ regions in the entire state, withstanding wind speeds up to 180 mph.

ProVia's metal roof panels are constructed with 26-gauge steel—up to 30% more galvanized steel than competitive stamped metal roofing products. Our 4-Point Locking System includes a top lock, under and over locks on the sides, and our exclusive WaveLock™ ribbed feature on the bottom that increases the rigidity and strength of the panel.



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