

Metal Builder

ROLLFORMING MAGAZINE SPECIAL SECTION

**FASTENING
FOCUS**
**METAL-TO-METAL
CONNECTIONS**

CASE STUDY
**CLIMBING FACILITY
EXPANDED WITH
STEEL BUILDING**



WHAT TO EXPECT AT METALCON

Contents



METALCON:
Show Features
PAGE 4

METALCON:
Featured Exhibitors
PAGE 5

Case Study:
SimpliSteel selected for
rock climbing facility
PAGE 11

Product Feature:
A closer look at
metal-to-metal fasteners
PAGE 12

**Industry &
Supplier News**
PAGE 14



Follow us on Social Media

CHECK OUT OUR DIGITAL MAGAZINE WEBSITES

www.buildmybarndo.com

www.ruralbuildermagazine.com

www.framebuildingnews.com

www.readmetalroofing.com

www.rollformingmagazine.com

www.garageshedcarportbuilder.com

www.roofingelements.com



smartbuild
systems

**Come visit us at
METALCON Booth #507**

SmartBuild for All Metal Buildings

**Cuts bid time to
15 minutes and
increases sales
by up to 50%!**

SmartBuild Systems is the construction industry's only complete design system for all-metal buildings. Simple enough for anyone to use, this web-based software quickly generates a 3D model, material lists, pricing, proposals, and construction documents for almost any steel structure.



The gold-standard software for Post Frame now designs buildings using steel framing and metal panels for roofs and walls.

- USE SMARTBUILD TO QUOTE BARNDOMINIUMS
- USE AS A 3D CONFIGURATOR ON YOUR WEBSITE
- Unlimited attached buildings – in line or perpendicular
- Unlimited lean-to's, sheds, porches, and wrap-arounds
- Interior walls
- Insets
- Any type and number of windows and doors

Adding to our standard automation, SmartBuild for All Metal Buildings selects from any number of steel member types:

- Steel I beams
- Galvanized steel tubes – any size
- Cee section members
- Zee section members
- User selected color scheme for any members

SmartBuild for All Metal Buildings is for:

Contractors

- Increase sales through live design sessions with clients
- Deliver instant proposal: increase close ratio

Suppliers

- License the software to contractors in exchange for purchasing commitments
- Save hours of manpower with automatic takeoffs and push-button ordering

PEMB

- Use to capture complete architecture and geometry
- Capable of interfacing with engineering programs

Get Your Free Trial of SmartBuild for All Metal Buildings Today!

SmartBuildSystems.com • 303-579-6277 • kdietzen@keymark.com

METALCON 2024

Can't-Miss Features In Atlanta Oct. 30-Nov. 1

METALCON has announced its program line-up for this year's annual conference and tradeshow scheduled from Wednesday, Oct. 30 to Friday, Nov. 1 at the Georgia World Congress Center in Atlanta.

From intensive pre-show workshops beginning on Tuesday, Oct. 29 to 35+ free educational sessions conveniently located inside the exhibit hall to inspiring keynotes, top industry experts will share their knowledge with attendees who are eligible to earn nearly a year's worth of continuing education credits (CEUs), including AIA learning units among others.

The only global event dedicated exclusively to the application of metal in design and construction is brought to you by 2024 sponsors: Mill Steel Company (premier level), Flack Global Metals (diamond level), CIDAN Machinery Inc., (diamond level), and others, along with long-time partner, the Metal Construction Association (MCA).

Kickstart the mornings with engaging sessions!

On Wednesday at 8:00 a.m., join others for *Building Smarter: The Impact of our Changing Weather & Climate on Construction*. Then on Thursday at the same time, don't miss out on the choice between two compelling sessions: *The New World of Metal: How Technology and AI Can Affect the Metal Industries* or *Metal Composite Material (MCM) Building Code Fire Requirements*.

KEYNOTE SPEAKERS

Keynotes include former National Football League Most Valuable Player and

Super Bowl Champion quarterback, Joe Theismann, who will present his Game Plan for Success on Wednesday, Oct. 30 at 9:00 a.m., drawing parallels between winning in football and in business.

On Thursday, Oct. 31 at the same time, Dr. Anirban Basu, Chairman & CEO of Sage Policy Group, Inc., a Baltimore-based economic and policy consulting firm, will present *The Good, The Bad, & The Ugly: Financial Outlook and Trends for Metal Construction*.

On the closing day of the show at 9:00

at 11:45 a.m., to discuss current and future opportunities and challenges facing the metal construction industry such as recent technical developments, upcoming regulatory issues, resiliency in a turbulent building market, the superior sustainability of metal substrates and more.

HANDS-ON TRAINING AND DEMO AREA

New this year – MCA's Metal Mastery

As metal continues to gain traction in the market, it's crucial for contractors and installers to grasp the intricacies and proper techniques for forming panels and installing metal roofing and wall systems. In a series of clinics, experts from the MCA and Metal Roofing Alliance will discuss best practices for installing metal shingles, standing-seam roofing panels, retrofit systems, and metal wall systems, and will demonstrate proper techniques for on-site roll forming and machine maintenance.



PHOTO COURTESY OF NEUBEK PHOTOGRAPHERS

a.m., Dr. Melissa Furman will present *Relevant Leadership: Navigate, Empower, Transform*. Furman continues to captivate and inspire audiences, building on the success of her 2022 session which has garnered over 41,000 views on YouTube. She will empower attendees with actionable strategies to enhance critical leadership capabilities such as self-awareness, adaptability, and trust-building.

STATE OF THE INDUSTRY

Join industry experts and leaders from the MCA for a special State of the Industry panel presentation on Wednesday

METALCON Training Zone

Back by popular demand and proudly sponsored by Sherwin-Williams, the METALCON Training Zone returns to offer hands-on training for roofing contractors. This dedicated area features live demonstrations and education using a variety of mock-ups and materials such as painted steel, aluminum, zinc, copper and other exotic materials. Training will emphasize precise detailing and the use of appropriate tools, equipping contractors, remodelers and other professionals to elevate their skills, ensuring the best, most efficient and cleanest work when installing

various metal roof systems (conducted in English and Spanish).

For Architectural Design Professionals – The Design District@METALCON

The Design District@METALCON, sponsored by PPG and produced in partnership with AEC Daily, offers an unmatched opportunity for architectural design professionals to immerse themselves in the world of metal design and construction with curated education, targeted networking, and access to innovations that can elevate their expertise and inspire their approach to the application of metal.

More Networking Than Ever — New this year!

METALCON is introducing a variety of networking events to foster communication and collaboration among industry peers. From the lively Metal Mash Up Welcome Party and engaging speed networking to international matchmaking opportunities and insightful Metal Minds in Motion Roundtable discussions, attendees can also enjoy simulated golf sessions at The Back Yard and unwind at the 19th Hole Reception. Metal and Mimosas will be back following the success of last year's launch of our women's program. These events offer abundant opportunities for participants to exchange ideas and forge valuable connections.

METALCON Top Product Awards

On Thursday at 2:30 p.m., top product award winners recognizing the most innovative products and technologies shaping the metal construction industry will be announced.

LEARNING CENTERS

Check out METALCON's free education sessions! These 60-minute sessions from 10:15 am to 2:30 p.m. on Wednesday and Thursday are organized into three centers on the show floor: Best Practices, Technical Know-How and the New Building Performance Learning Center. Attendees can earn up to 12 hours of CEUs.

Additionally, METALCON continues to offer in-depth workshops this year on

the Tuesday, Wednesday and Thursday of the show to provide cutting-edge education and training, which cannot be found elsewhere. For a small fee, attendees will be armed with new information, fresh ideas and strategic direction to address some of the major issues facing the construction industry today, including:

- Impact & Utilization of AI on the Construction Industry
- Utilizing MCM in Modern Design Including Fire Prevention
- Metal Roof Installation Training Certificate Program
- Rollforming for the Metal Construction Industry
- Metal Roofing from A (Aluminum) to Z (Zinc)
- Low Slope Detailing Workshop – Certificate Course
- Mergers & Acquisitions Essential Workshop

Each year, METALCON gives back to the local community where the show takes place. METALCON is proud to announce its ongoing partnership with Semper Fi & America's Fund (The Fund), a non-profit organization dedicated to helping veterans in all branches of the military. On the closing day of the show, a check presentation ceremony will be held at The Deck at 1:00 p.m., together with local representatives of The Fund.

Also at this time, the prestigious Metal Construction Hall of Fame Awards will honor visionary leaders in the metal construction industry. Now in its eighth year, the Hall of Fame identifies contractors, manufacturers and friends of the industry who make a difference each year.

"We eagerly anticipate our return to Atlanta, a premier destination for METALCON," remarked Judy Geller, METALCON Vice President. "We have a host of new networking opportunities, exciting hands-on training sessions, new educational programs and exceptional keynote speakers lined up. Be sure to visit The Deck, conveniently situated near registration, to meet our team, network, or simply unwind." **MB**

**METALCON
EXHIBITORS**

Bay Insulation Systems
Member of the Bay Family of Companies

Bay Insulation Systems

Booth #837

PO Box 9229

2929 Walker Drive

Green Bay, WI 54308

920-406-4000

920-406-4242 (fax)

dtomchak@bayinsulation.com

www.bayinsulation.com

Bay Insulation Systems is a leading supplier of metal building insulation and systems in North America. With 25 facilities strategically located throughout the United States and Canada, our Experience, Quality and Service are second to none. At Bay, we use NAIMA 202-96 fiberglass blanket and superior quality vapor barriers to produce custom-laminated insulation that meets the NIA Certified Faced Insulation® Standard 404.2-2024.

**BECK
Automation**

Beck Automation LLC

Booth #815

814 Fee Fee Road

Saint Louis, MO 63043

314-576-9736

314-227-2104 (fax)

sales@beckautomation.com

www.beckautomation.com

Beck Automation offers complete controls systems and production management software packages for the metal forming industry. Streamline your operations with our cutting-edge robotics solutions including folder tending, material handling, weld systems, and enhance your plant's efficiency. We pride ourselves in our customer service, work ethic, and customer support.

BETCO®



BETCO

Booth #907

Marketing@betcoinc.com

John Barnard, Director of Sales

BETCO is your total solutions provider, offering consultation, design and construction of custom buildings of all shapes and sizes since 1984. Our craftsman buildings are skillfully designed with detail from the slab up, utilizing the latest innovation and technology for every phase of every project. BETCO offers premium components including secondary structure (purlins), interior and exterior wall panels, roof panels and more that can be used for endless construction applications. Choose BETCO.

CIDAN

MACHINERY GROUP

CIDAN Machinery Group

Booth #1323

665 Hwy 74S, #350

Peachtree City, GA 30269

770-692-7230

sales-us@cidanmachinery.com

cidanmachinery.com

Imagine a world where your tools don't just work—they inspire. At CIDAN Machinery, we believe in being your One-Stop Partner, offering folding machines, shears, coil forms, roll forming, automation, software, and unmatched service and support. Join us in Shaping Tomorrow's World today.



PHOTO COURTESY OF NEUBEK PHOTOGRAPHERS

DBCI

DBCI

Booth #809

Marketing@dbcinc.com

Dennis Owens, VP of Sales

DBCI has remained a leading manufacturer and marketer of commercial-grade steel curtain roll-up doors and self-storage doors, components and solutions. DBCI continues to provide our customers with the highest quality products and services in the industry. We know value is just as important as quality, so we design our doors and hallways to be economical, yet strong, efficient and durable. DBCI remains true to its commitments of partnership, innovation and the manufacturing of superior products.



Direct Metals, Inc.

Booth #910

1719 Baseline Court

Fort Myers, FL 33905

855-800-8878

239-599-8545 (fax)

dave@directmetalsinc.com

www.directmetalsinc.com

DIRECT METALS INC (DMI) supplies long life fasteners for exposed fastener and standing seam metal roofs. The #12 diameter SCAMP 304 SS cap self-drill or Type 17 point carry a 40-year warranty to match metal roof panel warranties and are available with powder coat paint for color match. PANCLIP Pancake & Wafer head screws and panel clips for standing seam metal roofs are available in a variety of profiles. Accessories include metal roof pipe flashings, sealants, butyl mastic, solid and vented foam closures, and polycarbonate panels.

DR!PSTOP™

Freudenberg Performance Materials LP

Booth #1534

3500 Industrial Drive

Durham, NC 27704

937-660-6646

info@dripstop.com

www.dripstop.com

For over 25 years, Dripstop™ has been the absolute best way of dealing with condensation on non-insulated metal roofs. It has been tried and tested in every climate condition. Dripstop™ absorbs condensation as it forms and traps it in the specially designed pockets in the membrane and thus preventing dripping from the roof.

DYNAMIC FASTENER

Dynamic Fastener

Booth #533

800-821-5448

www.dynamicfastener.com

Dynamic Fastener offers same-day shipping of screws, painted rivets, anchors, flashings, safety equipment, hand tools and power tools. In-house custom painting of screws and rivets, with one or two-day lead time. A stock level of 145 million rivets including over 325 different rivets that are prepainted - in handy bags of 250 pieces. Dyna-Guard snow retention system for metal roofs. The company's free, 140 page, full color, Tool and Fastener Hand Guide provides engineering data, details product offering and pricing. Locations: Kansas City (Main office), Kansas City (Annex), Chicago, Houston, Las Vegas, Memphis, St. Louis, and St. Paul.



Booth #1607

877-742-7507

info@sharkskinroof.com

www.sharkskinroof.com

Kirsch Building Products is focused on developing and marketing premium "building envelope" products that provide engineered long term performance value, energy savings, and reduce labor costs. The Sharkskin® line of premium roof underlayments are designed primarily for all pitched roof installations of concrete/clay, slate, metal, and asphalt composition shingles, etc. providing "Industry Leading" High-Temp, 12-month UV and High Wind Uplift Resistance. Sharkskin Ultra SA® is an air and vapor barrier used in wall and deck assemblies. Sharkskin "The Ultimate Underlayment".



Levi's Building Components

Booth #738

400 Burkholder Drive

Ephrata, PA 17522

877-897-7020

717-656-2558 (fax)

info@levisbuildingcomponents.com

www.levisbuildingcomponents.com

Levi's Building Components is your one-stop shop for fasteners, snow guards, closures, venting, underlayment, roof boots, sealants, tin snips, gloves, metal wrap, blue film, and other roofing components. Check out our broad selection of fasteners, including FastGrip™, Metalgrip™, EZGrip™, ProZ™, ProCap™, and Pancake Head. To finish your project, we also supply premium structural and deck screws. For quality, value, and service, turn to Levi's for your metal roofing accessories.



Malco Tools, Inc.

Booth #707

14080 Hwy. 55

Annandale, MN 55302

www.malcotools.com

Malco Tools, Inc. is one of the nation's leading solution developers and manufacturers of a variety of high-quality specialty hand tools for the building and construction trades. Backed by over 70 years of history, Malco offers hundreds of tool innovations for trade professionals. Headquartered in Minnesota, Malco manufactures tools that are built to last, rigorously tested and backed by a lifetime warranty.



Roofing Ventilation & Accessories

Marco Industries

Booth #1134

4150 S 100th E Ave., Ste. 301

Tulsa, OK 74146

800-800-8590

918-622-4536

info@marcoindustries.com

www.marcoindustries.com

If It's Not Proven, It's Not Marco. We make the best roofing ventilation and accessories — period. With the most tested and certified products on the market, you can trust our solutions to perform in even the harshest conditions, protecting your roof and everything underneath.



Marion Manufacturing, Inc.

Booth #534

201 S. Coble

Marion, KS 66861

620-382-3751

620-382-2322 (fax)

sales@marionmanufacturing.com

www.marionmanufacturing.com

Form your future with a machine from Marion Manufacturing, Inc. Trim Machines, Panel Machines, Shears, Decoilers, Hemmers, Rebar Hot Heading Lines, Flashing lines and more. Let us help you add the value to the metal!



Metal Rollforming Systems

Booth #1007

4511 N. Freya Street
Spokane, WA 99217
888-284-6794
509-467-5631 (fax)
info@mrsrollform.com
www.mrsrollform.com

Metal Rollforming Systems designs and manufactures industry leading rollforming equipment and accessories. Our complete in-house design and manufacturing facility allows us to price our equipment at a very competitive price, making us a leader in rollforming equipment manufacturing. MRS' product lines consist of single and double deck rollformers, single and multi-trim rollformers, slitters, sheet stackers and much more. We take great pride in our customer support both before and after the sale.



BUILDING PRODUCTS CORP.

MFM Building Products Corp.

Booth #414

525 Orange St.
Coshocton, OH 43812
800-882-7663
740-622-6161
info@mfbmp.com
www.mfbmp.com

MFM Building Products manufactures a complete line of self-adhering waterproofing products for metal roofing applications. These products include steep-slope roofing underlayments rated to 250°F, and specialty flashing tapes engineered to seal metal roof seams and exterior penetrations. These membranes can also be used under vertical applications such as metal wall panels and parapet walls. MFM manufactures all of our products in the USA with a focus on product quality and value. Stop by the MFM booth for more information.



Mill Steel Company

Booth #915

2905 Lucerne Dr. SE
Grand Rapids, MI 49546
800-247-6455
616-977-9411 (fax)
info@millsteel.com
www.millsteel.com

Founded in 1959, Mill Steel Co. is one of North America's largest steel and aluminum distributors. Headquartered in Grand Rapids, MI, with six Regional Processing & Distribution Centers, Mill Steel excels at serving some of the world's most demanding industries through dedication to superior quality, delivery, and performance. Mill Steel offers a knowledgeable staff with decades of experience in building products, top-of-the-line coating systems, and easy online ordering. Contact Mill Steel today for your full 24, 26, and 29-gauge SMP and paint to order material and acrylic needs. Sherwin-Williams WeatherXL, AkzoNobel, commodity polyesters, and custom color codes are all available.



PAC-CLAD | Petersen

Booth #715

1005 Tonne Road
Elk Grove Village, IL 60007
800-722-2523
info@pac-clad.com
pac-clad.com

Petersen, a Carlisle company, manufactures PAC-CLAD architectural metal cladding systems in multiple gauges of steel and aluminum. PAC-CLAD products include multiple wall panels, standing seam roof panels, soffit panels, perforated metal, coil and flat sheet. All are available in a Kynar-based 70% PVDF Fluoropon coating in 46 standard colors.



Paragon Computing Solutions

Booth #811

20 S Reamstown Rd
Stevens, PA 17578
866-971-0940
sales@goparagon.com
www.goparagon.com

Experience Paradigm ERP, a streamlined management system that allows you to seamlessly manage inventory, manufacturing, delivery, and accounting for your roll-forming business. The system can be further extended with integrations to popular control software and building design packages, providing an integrated, paperless process flow throughout the complete design, order, production, and delivery lifecycle of an order.



SmartBuild Systems

Booth #507

PO Box 20627
Boulder, CO 80308
303-443-8033
303-443-8033 (fax)
kdietzen@keymark.com
https://smartbuildsystems.com

SmartBuild is the construction industry's only complete design system for all-metal buildings. Our user-friendly, web-based software quickly generates 3D models, material lists, pricing, proposals, and construction documents for almost any steel structure including BARNDOMINIUMS. SmartBuild supports post frame, sheds and carports. SmartBuild's Roofing Passport does metal roofing.



ST Fastening Systems

Booth #1747

6357 Reynolds Road
Tyler, TX 75708
800-352-4864
800-352-3940 (fax)
stfasteningsystems.com

ST Fastening Systems manufactures steel-frame, and post-frame fasteners for use in agricultural, industrial, commercial and residential metal roof and sidewall applications. Products have unique engineered design innovations and are enhanced with a superior proprietary powder coating paint system.



SWI Machinery, Inc.

Booth #547

85 Howell Ave
Fairburn, GA 30213
770-766-0880
info@swimachinery.com
www.swimachinery.com

SWI Machinery is known for state-of-the-art sheet metal machinery that provides superior, dependable solutions for both large and small organizations throughout the industry. SWI's line of Simplex and Duplex folders, Marxman manual and automatic slitters, recoilers, uncoilers, including our CX5 multi-station Auto Decoiling & Storage System are fast, flexible, and easy to operate. Each features advanced reliable mechanical design and has a reputation of robust, high quality construction that allows for decades of trouble-free operation with minimal maintenance. Our mission is to provide high up-time

equipment at a competitive price. Stop by and visit SWI Machinery at Metalcon and see our fully operational CX5 along with Marxman S1220, Plus and Pro, Duplex with sheet loader, recoiler, various uncoiler models, and other quality SWI Machinery.



Trac-Rite Door

Booth #1639

314 Wilburn Road
Sun Prairie, WI 53590
800-448-8979
tr@tracrite.com
www.tracrite.com

Trac-Rite, a 100% employee-owned company with over 40 years of experience, is North America's most trusted door manufacturer. We specialize in high-quality, 100% USA-made steel roll-up doors designed specifically for the self-storage and boat/RV industry. Our commitment to excellence goes beyond doors- we also provide all necessary components for door and hallway/conversion projects. With our durability and unmatched customer service, Trac-Rite is your partner for superior self-storage solutions.



Trachte Building Systems

Booth #1102

314 Wilburn Road
Sun Prairie, WI 53590
800-356-5824
tbs@trachte.com
www.trachte.com

Trachte Building Systems designs, manufactures & erects a full line of durable, pre-engineered, customized steel self-storage systems. Offerings include single & multi-story buildings, door & hallway systems, interior partitions & corridors, portable storage units, & boat/RV storage solutions. Trachte's knowledgeable sales team is dedicated to

helping owners make informed decisions. With over 120 years of manufacturing experience, Trachte is a 100% employee-owned company committed to excellence.



Triangle Fastener Corporation

Booth #1631

1925 Preble Ave.
Pittsburgh, PA 15233
800-486-1832
www.trianglefastener.com

TFC offers a full line of fasteners, sealants, and power tools for the metal roofing industry. We specialize in supplying rare fasteners and accessories used in a wide range of applications and job-site support, 27 stocking locations and 7 paint facilities. Technical support, inventory management, and delivery programs are available.



United Steel Supply

Booth #1829

248 Addie Roy Road, Suite C200
Austin, TX 78746
512-263-0954
www.unitedsteelsupply.com

Welcome to United Steel Supply, your first choice for steel. United Steel Supply provides high quality flat rolled steel coils. We offer superior customer service, competitive pricing and just-in-time delivery, allowing us to achieve the highest level of customer satisfaction. United Steel Supply furnishes Galvalume®, galvanized and prepainted steel coils for metal roofing and siding applications to the agricultural, commercial, industrial and residential markets. Brands: 22-, 24-, 26- and 29-ga. flat rolled 40-year painted coil inventory. Acrylic coated in 22-, 24-, 26- and 29-ga.

MB

METALCON

OCTOBER 30 - NOVEMBER 1

SAVE \$30 ON REGISTRATION
USING PROMO CODE: AD30

Discount Pass

REGISTER AT METALCON.COM/REGISTER
OR BY SCANNING THE QR CODE:

\$30
OFF



Georgia World Congress Center - Atlanta, Georgia

THE ONLY GLOBAL EVENT DEDICATED TO THE APPLICATION OF METAL IN CONSTRUCTION AND DESIGN



225+ EXHIBITORS SHOWCASING THE LATEST IN ROOFING,
SOLAR, ACCESSORIES, FASTENERS, WALLS, FRAMING & MORE!

35+ INFORMATIVE AND PRACTICAL SESSIONS PRESENTED BY
TOP INDUSTRY EXPERTS

"We come to METALCON to learn new ways to do old things. From talking to the people we buy machines from to the awesome education sessions, we always come away with great ideas to improve our business."

J. Waibel, T.T.&L. Sheet Metal



WWW.METALCON.COM | INFO@METALCON.COM | 617-965-0055



SCAN THIS QR CODE TO LEARN MORE
& REGISTER AT METALCON.COM



Climbing Facility Expansion

Metal Fits The Bill In Expansion Plans

BY ANDREA HAERTHER, MARKETING SPECIALIST,
CORNERSTONE BUILDING BRANDS

BedRock, a climbing hostel founded by longtime friends Jeremy Salyers and country music star Kip Moore, needed to expand their facilities to include a world-class training space separate from their main lodge. The Rogers, Kentucky, project required a customizable, quickly constructed solution that would provide ample natural light and durability for intensive climbing training activities.

THE SOLUTION

Simplisteel™, a product of Cornerstone Building Brands, is a simple rigid-frame metal building that met all of Bedrock's requirements:

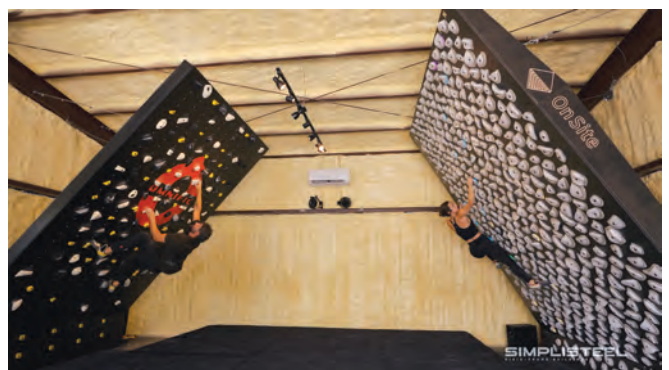
- 1. Customization:** The Simplisteel building allowed for full customization, including strategic placement of windows, garage doors, and entrances to maximize natural light and functionality.
- 2. Rapid Construction:** The building was erected in just four days, minimizing disruption to Bedrock's operations.
- 3. Spacious Interior:** The wide clear-span design provided the flexible, open space needed for a variety of climbing training equipment and activities.
- 4. Durability:** The robust metal construction ensures long-term protection against weather and intensive use.
- 5. Natural Light:** Large windows and strategic design allowed for ample natural light, creating an ideal training environment.
- 6. Simplicity:** The streamlined design and ordering process simplified the entire project from conception to completion.

RESULTS

The new building has become an integral part of Bedrock's facilities, described by Salyers as "a world-class space to a climber" and "like having your own wave in your backyard if you were a surfer." The building's customization options allowed BedRock to create a unique space that perfectly suits their needs, enhancing the overall experience for climbers visiting the facility.

The quick construction time and ease of the entire process, from design to delivery, exceeded the owners' expectations. The new training space has elevated BedRock's offerings, providing a dedicated area for climbers to hone their skills outside of the main lodge.

Salyers enthusiastically recommends Simplisteel buildings, stating, "We were so pleased with every step of the process — from designing the building, to delivery of the building, to communication with delivery of the building. I'd highly recommend a



Simplisteel building to anyone."

The new building has become the "cherry on top" for BedRock, helping to fulfill the founders' vision of creating a unique and world-class climbing destination in the Red River Gorge.

"When you need a strong, reliable space to grow your passion, Simplisteel™ rigid-frame buildings make it simple to build-out even the most ambitious projects — whatever they may be," says Matt Ackley, President of Shelter Solutions at Cornerstone Building Brands." **MB**

Metal on Metal

What Builders Need to Know About Metal Fasteners

Vendors are great sources of information; they can inform you on everything from what materials to use for your project to how to install them. It's great having such knowledgeable partners supporting you, but it's nice to have the self-efficacy to complete the job even if the vendor is unavailable. Anyone who uses fasteners to attach metal to metal should understand the key factors that influence fastener selection.

IS IT THE RIGHT FASTENER?

First is the matter of compatibility; the fastener must be compatible with both materials it is joining to avoid galvanic corrosion. Stainless steel fasteners work well with stainless steel panels, while zinc-coated screws are better for general applications. For guidance on material compatibility, see the chart below.

Consider the load requirements of the project. The tensile and shear strength of the fastener must be able to handle the

expected stresses. Choose heavy-duty fasteners for high-load areas, they tend to have thicker diameters or higher-grade materials.

Self-drilling screws are a good option for metal on metal fastening because they do not require pre-drilling, thereby saving time. Your screw point should be longer than the total thickness of the metal plus the insulation so that the point makes it through before the thread engages with the metal to prevent the head from

Cathodic	Anodic Metals (Corrodes)																			
	Magnesium & Alloys	Zinc & Alloys	Aluminum & Alloys	Cadmium	Steel (Carbon)	Cast Iron	Stainless Steels	Lead, Tin, & Alloys	Nickel	Brasses, Nickel-Silvers	Copper	Bronzes, Cupro-Nickels	Nickel Copper Alloys	Nickel-Chrome Alloys	Titanium	Silver	Graphite	Gold	Platinum	
Magnesium & Alloys																				
Zinc & Alloys																				
Aluminum & Alloys																				
Cadmium																				
Steel (Carbon)																				
Cast Iron																				
Stainless Steels																				
Lead, Tin, & Alloys																				
Nickel																				
Brasses, Nickel-Silvers																				
Copper																				
Bronzes, Cupro-Nickels																				
Nickel Copper Alloys																				
Nickel-Chrome Alloys																				
Titanium																				
Silver																				
Graphite																				
Gold																				
Platinum																				

Corrosion Risk (Red)

TABLE 1 DEPICTS CORROSION RISKS IN MIXED METALS. COURTESY OF MONARCH METALS INC.

snapping off the screw. Secure the screw with a high-quality bonded washer to avoid leaks.

Self-drilling metal screws are rated on a scale from T1 to T5 which relates to drilling capacity. Choose a T1 screw, commonly called a stitch screw, for light gauge metal attachment (.024" to .095" total steel thickness in a #14 diameter). T3 fasteners (.036" to .250" total thickness in #14 diameter) are often used as sheet to purlin or girt fasteners. T5 fasteners (.250 to .625" total steel thickness in #14 diameter) are for heavy gauge steel.

Environmental considerations also play their part in choosing fasteners. If the building will reside in a high-moisture climate, you should consider fasteners with coatings specifically designed to withstand rust and corrosion.

Think about the warranty. Many quality panels today have long warranties, and you will want to choose a fastener that can hold up as long as the panel does.

IS IT THE RIGHT TOOL?

After you have selected your fasteners, it is important that you choose a good tool to install them. Not only will it make the job easier, but many potential problems can be avoided, simply by choosing the appropriate tool for the job.

When choosing a tool, match the tool specifications with fastener type and material and application. A variable screw gun is a popular and well-recommended tool for metal-to-metal fastening. Adjust the RPM of the screw gun according to the thickness of the metal. For example, keep the RPM at 2,500 for panels less than 1/4" thick and 1,000 RPM for self-tapping stainless steel fasteners.

To avoid overtightening, a tool that has torque-control or sets a fastener based on depth can help. When fastening, stop occasionally and hand check the drilled screws to ensure they are not stripped or broken. Adjust the tool accordingly.

Depth setting or adjustable torque setting also helps set the sealing washer to the proper depth without over driving.

Impact drivers are not advised for self-drilling metal-to-metal screws as it is easy to use too much force with these tools, particularly for self-drilling screws.

COMMONLY MADE MISTAKES

• Applying too much force during installation.

Be aware of the amount of pressure you are applying to the fastener. Different screws can withstand differing amounts of force and it depends on the length of the screw, the angle and the metal composition. Too much pressure can strip threads, overtighten, break screw heads, or damage metal panels,

• **Overtightening.** Overtightening a screw can damage the thread, lessening its efficacy. This is an easy mistake to make, but as mentioned above, using the right tool can help prevent it.

• **Fastener Misalignment.** Improper alignment can lead to uneven surfaces, leaks, and it can even compromise structural integrity. Templates or guides can help keep fasteners aligned.

• **Forgetting about thermal expansion and contraction.** When adding up the thickness needed, nuts, washers and drill points, remember to account for thermal expansion. You don't want the screw to protrude too far and come into contact with another member.

• **Not choosing adequate corrosion protection.** For exterior conditions, long-life coatings and finishes are needed; very harsh conditions may require 304 stainless steel.

• **Choosing the wrong tool for installation.**

• **Pre-drilling the metal panel when fastening to metal framing or purlins.** The problem with this procedure is that

one little mistake can lead to the holes not aligning with the metal framing, and you may have to replace the panel.

• **Using worn-out drive bits and sockets can strip the fastener head and damage painted fasteners.** Use quality drive bits and sockets, replacing them as they wear out.

METAL-ON-METAL DRILLING TIPS

Just a couple more "points" on fastening metal to metal:

• If you are right on the outer edges of the drilling maximum for the fastener, bump up to the next drill point size.

• Let the drill point do the job. Firm, steady pressure is needed, but if you try to hurry the job along by using greater force, it can lead to problems and frustration. Adopt a "craftsman mentality" for a high-quality finished appearance.

• For self-drilling screws: Install the fastener perpendicular to the work surface, let the drill point do the work, allow all material to be drilled before tapping, do not exert excessive pressure or over-drive the screw. Never use an impact tool.

Finally, the experts all agree that while knowing these basics is great for the builder, the best resource for information about the fasteners and tools are the vendors. Fastener manufacturers have technical resources and Fastener Engineering Guides. **MB**



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

THANK YOU TO THE EXPERTS WHO CONTRIBUTED TO THIS ARTICLE:

- Don Benson, East Coast Fasteners & Closures, www.eastcoastfasteners.com/
- Josh Krohn, Triangle Fastener Corporation, www.trianglefastener.com
- Jerod Webber, Dynamic Fastener, www.dynamicfastener.com/
- David Quehl, Direct Metals Inc., www.directmetalsinc.com/
- Christian Rios, Levi's Building Components, www.levisbuildingcomponents.com



CENTRAL STATES MFG. NAMES GINA DEVANEY VICE PRESIDENT OF SALES

Central States, a leader in metal building components, roofing, and building systems, has named Gina Devaney to the role of Vice President of Sales. Devaney will focus on maintaining Central States’ service culture as well as leveraging training and development as the 100% employee-owned company continues to improve its processes, be outstanding business partners and turn customers into loyal fans.

“I am thrilled to join Central States and to play a role in fostering strong and enduring relationships with our customers,” Devaney said. “Strategic growth is a vital aspect for any organization, and watching plans come to fruition is truly gratifying. I look forward to contributing to the growth and success of Central States.”

Devaney brings two decades of industry experience, growing and managing relationships with key accounts. She comes to Central States after working with several national consumer brands; most recently as Head of Sales at Pet-Ag, Inc., Director of Sales at FoodScience Corporation, and roles at Pet Retail Brands and Blue Buffalo Co. She has a proven record of leading high performing teams and formulating innovative plans that successfully grow customer bases and builds brand image.

“We are thrilled to welcome Gina as our new Central States VP of Sales,” said

President of Central States Manufacturing Tim Ruger. “Her extensive experience and proven leadership skills will continue to help drive our company forward. She will focus on propelling our strategic vision and emphasizing our customer-focused culture throughout our business.”

Central States, Inc. is 100% employee-owned and was founded in 1988. With over 1,400 employee-owners and 11 manufacturing facilities, the company serves over 6,000 commercial, architectural, post-frame, and residential contractors and customers across the United States across three business operating units.



MBCEA, MBI CELEBRATE KEITH WENTWORTH HALL OF FAME INDUCTION

The Metal Building Contractors and Erectors Association (MBCEA) and Metal Buildings Institute (MBI) have announced Keith Wentworth’s induction into the 2024 Metal Construction Hall of Fame class in the Founders category.

“On behalf of both the MBCEA and MBI, I would like to congratulate Keith on his well-deserved Hall of Fame election,” says Sasha Demyan, MBCEA Executive Director. “His work over the years with both organizations has helped to move our industry forward in a number of ways. As MBCEA president, he focused on furthering awareness of careers in construction. He also achieved remarkable growth in MBCEA membership, reaching

the 500-milestone mark during his tenure.”

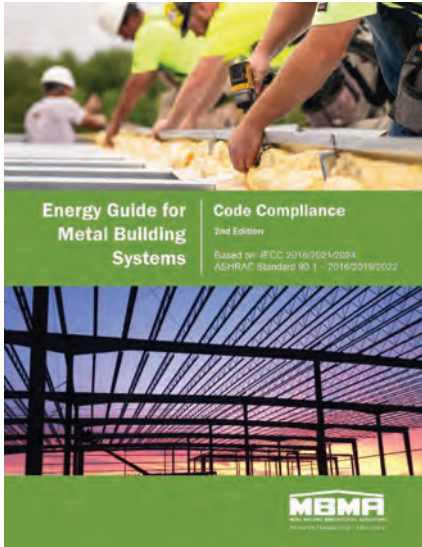
“His effort in the development and promotion of AC478 accreditation,” Demyan adds, “setting a standard for metal building erectors, has been vital. He pushed to develop the Temporary Bracing Guidelines, which are critical for safe metal building assembly. Now serving as president of the Metal Buildings Institute, Keith also co-chairs the MBCEA Education and Training Committee with current past-president of the MBCEA, Jen Heimburger, spearheading the creation of a Metal Building Systems Assembly Curriculum for workforce development.”

Keith Wentworth currently serves as President of Dutton & Garfield, Inc. in Hampstead, New Hampshire, and as the current Metal Buildings Institute President. He holds a B.S. degree in Civil Engineering from Merrimack College in North Andover, Massachusetts. With more than 25 years of experience in commercial and industrial metal building design/ build construction, he is a third generation Butler builder as well as a Butler-certified Weathertight Gold Roof Installer/Supervisor and is also a licensed Massachusetts Construction Supervisor. Keith serves on Butler’s advisory council and is a past President of the Board of Directors of the Metal Building Contractors and Erectors Association New England Chapter and past President of the National Board. At the 55th MBCEA Annual Conference, he was elected into the MBCEA Pioneers Club, whose members must have served for at least 25 consecutive years in the industry.

“Keith’s contributions to the industry are both numerous and invaluable, and I would also like to congratulate him on this well-deserved recognition,” says Robert Tiffin, MBCEA President. “His work as a past MBCEA President and current MBI President make my job that much easier.”

MBMA PUBLISHES ENERGY CODE COMPLIANCE GUIDE

The Metal Building Manufacturers Association (MBMA) has published a new design guide, *Energy Guide for Metal*



Building Systems: Code Compliance, 2nd Edition. This free publication provides information on how to design, construct, and maintain metal buildings to be energy efficient. It is available at https://www.mbma.com/Energy_Efficiency.html.

“Compliance with energy codes is an important and necessary part of modern construction. This guide is a valuable resource for building owners, architects, specifiers, contractors, builders, and metal building manufacturers,” says W. Lee Shoemaker, Ph.D., P.E., MBMA’s Director of Research and Engineering. “It is based on the IECC 2018/2021/2024 (draft edition) and ASHRAE Standard 90.1 – 2016/2019/2022, so it references the most widely-used codes and information.”

Energy Guide for Metal Building Systems: Code Compliance is a synthesis of all the pertinent information on creating energy efficient, code-compliant metal buildings. The design guide consists of the following six chapters:

- Design Responsibilities – Building and Energy Codes
- Energy Code Fundamentals
- IECC Building Envelope Compliance
- ASHRAE 90.1 Building Envelope Compliance Methods
- Insulating Metal Building Systems
- Commercial Compliance Using COM-check

Additionally, the guidebook has dozens

of useful diagrams, figures and charts to help guide the user.

“Given all the recent energy code updates, the 2nd edition of this design guide is both timely and helpful,” adds Tony Bouquot, MBMA general manager. “Many thanks to the MBMA staff and committee members who put this together.”

MBMA Roof Framing Design Guide

The Metal Building Manufacturers Association has also released a comprehensive 2nd edition of its *Roof Framing Design Guide for Metal Building Systems*. This free publication provides engineers with practical guidance on the design of cold-formed steel purlin roof framing systems and is available at https://www.mbma.com/Design_Resources.html. It was developed by Dr. Michael Seek of Old Dominion University under the guidance of the MBMA and the American Iron and Steel Institute (AISI) Education Committee.

“This new guide updates the previous publication from AISI, *Design Guide for Cold-Formed Steel Purlin Roof Framing Systems*, AISI D111, and makes substantive changes and incorporates the information from another AISI design guide, *A Guide for Designing with Standing Seam Roof Panels*, CF97-1,” says Vincent E. Sagan, P.E., MBMA Senior Staff Engineer. “With the detailed explanations, flowcharts, and numerous examples, those who work with cold-formed steel framing in metal buildings will find this publication a valued resource.”

Roof Framing Design Guide provides information on the design of cold-formed steel purlins as well as the roof diaphragms and anchorages. It consists of the following six chapters:

1. Introduction
2. Design Methods for Purlins
3. Continuous Purlin Design
4. Diaphragm Requirements
5. System Anchorage Requirements
6. Miscellaneous Topics

“Many thanks to Dr. Seek and Vince Sagan for their work in putting this guide

together,” adds Tony Bouquot. “The funding for the research and publication of this design guide are just a part of MBMA’s commitment to providing practical, unbiased, cutting-edge research for the entire metal building systems industry.”

MBCEA SOUTHEAST CHAPTER ELECTS NEW BOARD OF DIRECTORS

The Metal Building Contractors and Erectors Association (MBCEA) Southeast Chapter elected new officers and board members prior to its Spring Golf Tournament at Black Diamond Golf Ranch in Lecanto, Florida on May 30, 2024. Carl Fair of Commercial Metal Building Services in Ft. Lauderdale, Florida, will serve as president and Catherine Orr, with Enviro-Cat in Jacksonville, Florida, will serve as president elect.

The Southeast Chapter serves members in Alabama, Florida and Georgia and seeks to advance the quality of metal building contractors and erectors throughout the region. Officers serve a two-year term and board members serve for three years, effective immediately. The new officers and board members are:

Officers:

Carl Fair, Commercial Metal Building Services Corp. – President

Catherine Orr, Enviro-Cat – President Elect

Brian Flowers, Unlimited Structures – Vice President

Wade Hobbs, Universal Erectors, Inc. – Secretary/Treasurer

Directors:

Matthew Metzcus, Therm-All Insulation, Inc. – Public Relations/Communications

Kenneth Thomas, Butler Manufacturing – Membership (Recruitment)

Christopher Perkins, Metal Building Erectors, LLC – Education/Training

Quint Robinson, Lemartec Corporation – Membership (Service/Benefits)

Dean Davids, Commercial Metal Building Services Corp. – Strategic Planning.

MB