

VANTAGEPOINT



Free up more time for the things that matter.

4

Conversations with ClarkDietrich.

5

Project Profile: The Easy Embedment System™ at Orlando International.

8

On Point with Patrick W. Ford.



FREE UP MORE TIME FOR THE THINGS THAT MATTER.

No doubt the top-notch work you do is a priority. But there's probably family, favorite hobbies or some quality off-the-clock hours topping your list, too. Turn to ClarkDietrich for framing and finishing products that eliminate extra steps and slowdowns—so you get more time for what you love.

STREAMLINING SPECIFICATION.

It all starts with our data-rich resource for streamlining product lookups and specification: ClarkDietrich iTools. Skip complex load tables and access the platform from a desktop or mobile device to perform fast calculations. Our iTools also provides a range of compliance information all in one place, including limiting heights, UL fire protection and STC sound ratings. It even performs instant cost-saving calculations on our most popular time-saving products.

SIMPLIFYING INSTALLATION.

Across our vast portfolio, you'll discover multiple solutions that reduce the materials, steps and training needed to do the job right. All are designed to boost both installation speed and overall build quality.

For a leading example, look to RedHeader PRO™. By eliminating field cutting, preassembly and a lot of extra components, this system makes rough openings far less of a chore.

Our BlazeFrame® deflection track products do double duty by speeding up installation and delivering built-in fire safety code compliance. Where conventional firestop methods require caulks, sealants and added steps, our method lets you frame and firestop simultaneously.

Our smarter, faster, better construction philosophy is just as relevant to our finishing systems. The Easy Embedment System™ is an ideal case in point. It combines the advantages of E-Flange™ Casing Beads and Control Joints with Structa Wire to improve proper embedment of a stucco job—while streamlining the project.

For even more schedule-accelerating standouts in our portfolio, look to our innovative Strait-Flex® products. Among many solutions for creating craftsman-quality finishing details with much less effort, the lineup features a variety of composite and paper-faced corner beads that remove extra steps and materials from the process.

DELIVERING SUPPORT.

Let ClarkDietrich take other time-consuming tasks off your hands. We have four engineering offices, over 50 engineers and technicians on staff, plus nationwide reach.

You can also turn to our technical service experts for immediate responses to general questions, help with detailed specification issues, and more.

SUMMING IT ALL UP.

Whether it's our digital tools for selecting the best products, efficient framing and finishing systems, or responsive support services, we're looking to bring more quality to your projects—and more free time to your life. ●

ACCESSING ANSWERS, ANYTIME, ANYWHERE.

ClarkDietrich iTools: a digital solution that just keeps getting smarter.

Since launching the first web platform for steel framing, ClarkDietrich has been at the forefront of digital tool technologies for the specification and purchase of steel framing systems. We continued this commitment to innovation with the launch of the newest version of the ClarkDietrich iTools, which now features complete integration of our industry-leading SubmittalPro® system.

ClarkDietrich iTools was developed to help construction teams evaluate purchasing decisions and assist in product selection for steel framing projects. Users can access more than 500 data sheets at the push of a button, while the cost-savings calculators use project-specific data to provide an instant comparative pricing model—for both materials and labor—for many ClarkDietrich steel framing products.

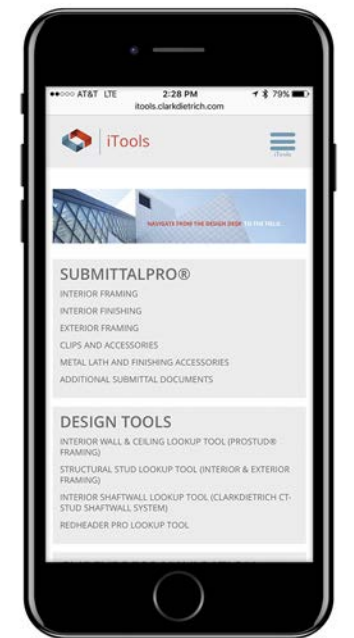
Through the iTools interface, users can also access the iProSTUD Interior Wall & Ceiling Lookup Tool, which gives users the ability to calculate and filter wall assembly data by specific properties—including wall design, wall assembly, limiting heights and ceiling spans, STC ratings and UL fire protection ratings. In addition, users can directly link to UL design reports and third-party STC sound tests.

Mike Murzyn, technical product and marketing manager, ClarkDietrich, said, "iTools is the perfect complement for contractors, architects and specifiers who are on the go, but still want instant connectivity to data on specific components of their wall and ceiling systems.

"The combination of our dynamic, user-friendly interface with the integration of our SubmittalPro system has truly taken iTools to the next level. This tool is a comprehensive resource for anyone involved in the design, specification or installation of steel framing wall and ceiling systems."

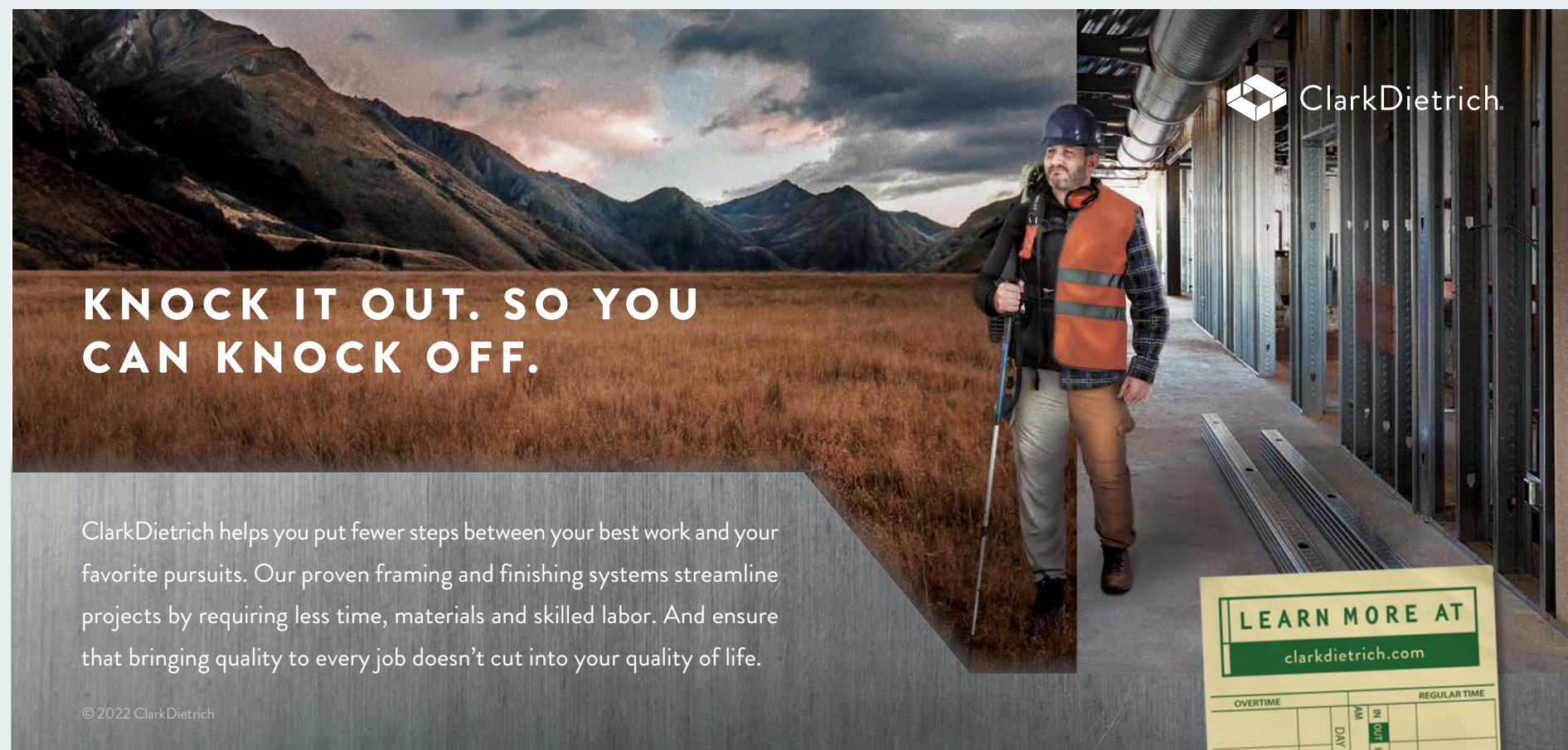
Building professionals can also navigate the various clips and connectors offered through ClarkDietrich's Clip ExpressSM service, including the industry's widest selection of connection solutions.

"We're bringing tools to our customers' fingertips that will help increase their bottom line," added Murzyn. "We understand that efficiency on the jobsite is important, and we strive to provide innovative tools that help accomplish this goal."



ClarkDietrich iTools is widely recognized as the most comprehensive mobile tool for walls and ceilings professionals, and was recently named one of the top tools by *Walls & Ceilings Magazine*.

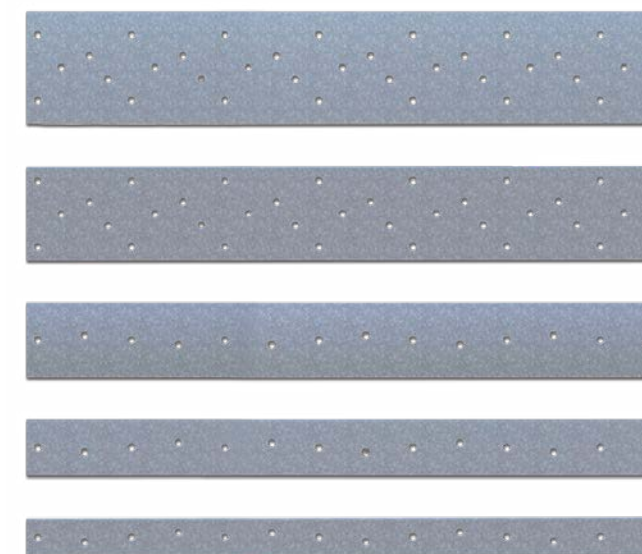
Access ClarkDietrich iTools on your desktop or smartphone at iTools.clarkdietrich.com. ●



COMMERCIAL COIL STRAPPING.

Take the guesswork out of bracing with ClarkDietrich coil strapping.

Adding to its industry-leading lineup of clips and connectors, ClarkDietrich now offers a multipurpose, commercial-grade coil strapping product for wall framing and floor joist applications. ClarkDietrich's commercial strapping takes the guesswork out of bracing, as the coil

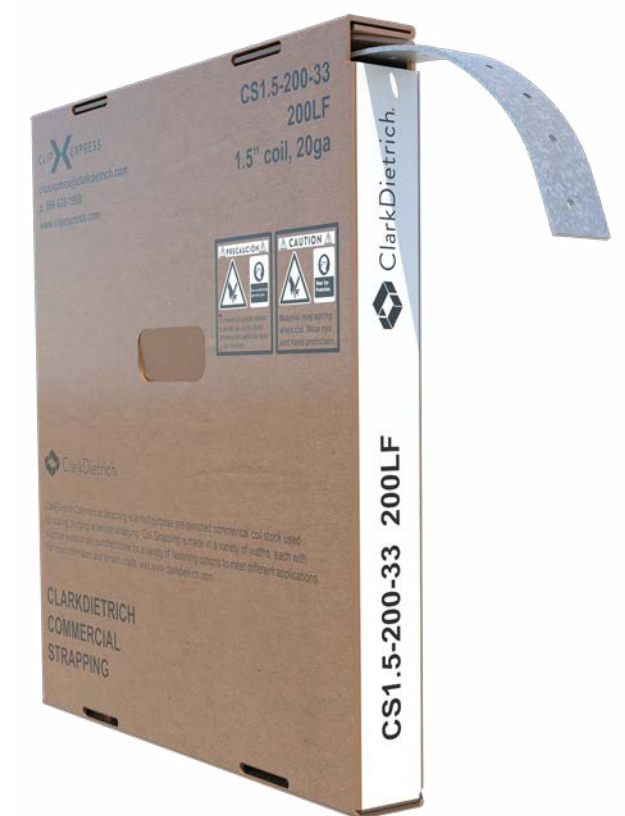


comes standard with pre-punched holes to speed up installation and improve overall installation costs.

"Our new commercial strapping product is yet another example of ClarkDietrich producing products and systems that make work on the jobsite easier, more efficient and cost-effective," said Terry Westerman, vice president, marketing, ClarkDietrich. "Product differentiators such as pre-punched holes, user-friendly packaging and coming in a variety of lengths, all make a contractor's job easier."

ClarkDietrich's commercial strapping is available in 1", 1-1/2", 2", 2-1/2" as well as 3" widths, and comes in lengths ranging from 100 ft. up to 250 ft. The new strapping product is also available in both 18- and 20-gauge options, and tension load values are available.

ClarkDietrich's Clip ExpressSM Service is a dedicated and streamlined support and delivery system for steel framing connection products. It's the industry's top source for fast and economical connection solutions. With huge, finished product inventories and a ship-it-now mentality, Clip Express helps keep projects on-time and under budget. ●



CONVERSATIONS WITH CLARKDIETRICH.

Series launches with head-of-wall session at MAREK.

ClarkDietrich has launched a new interactive educational lunch-and-learn series called 'Conversations With ClarkDietrich'. The series was kicked off with an event on October 15, 2021, at Dallas-based MAREK Design Studio and was focused on head-of-wall framing solutions.

"The performance of the connections holding all framing elements together is critically important, especially in coastal and high-seismic zones where structures face greater risk of movement, stress and loading from natural events like earthquakes and



high-velocity winds," said Keith Johnson, technical sales manager, ClarkDietrich. "The 'Conversations with ClarkDietrich' event allowed for thoughtful discussion around how to navigate the growing number of assembly methods for head-of-wall, which can often get confusing. Partnering with MAREK added an experienced contractor's voice to the discourse, which made the event even more impactful!"

CONVERSATIONS with ClarkDietrich.

Using four full-scale mock-ups, the recent event focused on the unique features of ClarkDietrich's head-of-wall solutions including: UltraBEAD; Deep Leg Deflection Track with YurClip; Deep Leg Deflection Track with Fast Top™ Clip; and DoubleTrack™ Deflection Track. Attendees were able to interact with the mock-ups and ask questions about each of the UL-rated assemblies in an open, safely spaced atmosphere.

BLAZEFRAME® RIPTRAK™ CAN HELP YOU KEEP YOUR COOL.

A new UL listing report shows that fire-rated head-of-wall framing projects that utilize ClarkDietrich's trusted BlazeFrame RipTRAK just got a whole lot easier. The UL listing has provided a revised installation method for BlazeFrame RipTRAK in fluted deck assemblies that removes the need for sealant and castle-cutting the board, and only requires mineral wool in the flutes of the deck. BlazeFrame RipTRAK is the only UL fire-rated head-of-wall joint system to meet the new test standard.

"The new installation method is a game changer for framing contractors because it will significantly streamline the installation of fire-rated head-of-wall systems," said Terry Westerman, vice president, marketing, ClarkDietrich. "This is just the latest example of ClarkDietrich's commitment to developing product solutions that are easy to use, reduce installation time and resources, and deliver superior results with fewer hassles."

The latest addition to the company's BlazeFrame firestop product line, BlazeFrame RipTRAK is a UL-tested fire-rated head-of-wall deflection track for both roof and wall

assemblies. Available in one- and two-hour rated systems, the product has an offset shoulder that represents the thickness of the wall material. A second piece of board is fit flush to the fluted deck or slab and is then attached to the shoulder, which allows the deck and the product to



'Conversations With ClarkDietrich' is aimed at giving architects and specifiers an up-close look at how the company's products can improve building performance while helping to alleviate issues associated with labor shortages and skill gaps in the field. Not limited to head-of-wall framing, ClarkDietrich hopes to host similar events in the future, leveraging the company's technical expertise across both framing and finishing solutions.

To find out about the next 'Conversations With ClarkDietrich' event, contact Janine Dallies at Janine.Dallies@clarkdietrich.com.

move in relation to the wall studs. This also allows the outer, overlapping board (the rip board), that is attached to the BlazeFrame RipTRAK, to slide over the primary wall board material for a high degree of deflection.

"[RipTRAK] will significantly streamline the installation of fire-rated head-of-wall systems."

BlazeFrame RipTRAK meets UL 2079, 5th edition; HW-D-1125 and HW-D-0823 tests for Fire Resistance of Building Joint Systems. It is offered in 33 mils, 43 mils, 54 mils and 68 mils with web sizes of 2-1/2," 3-5/8," 4," 6" and 8."

BlazeFrame RipTRAK is accompanied by RipTRAK Clips which are attached to both inside bottom legs of the RipTRAK from the outside to fasten the stud to the track. The clips reinforce any stud to track connection while still allowing deflection. ●

PROJECT PROFILE: THE EASY EMBEDMENT SYSTEM™ AT ORLANDO INTERNATIONAL.

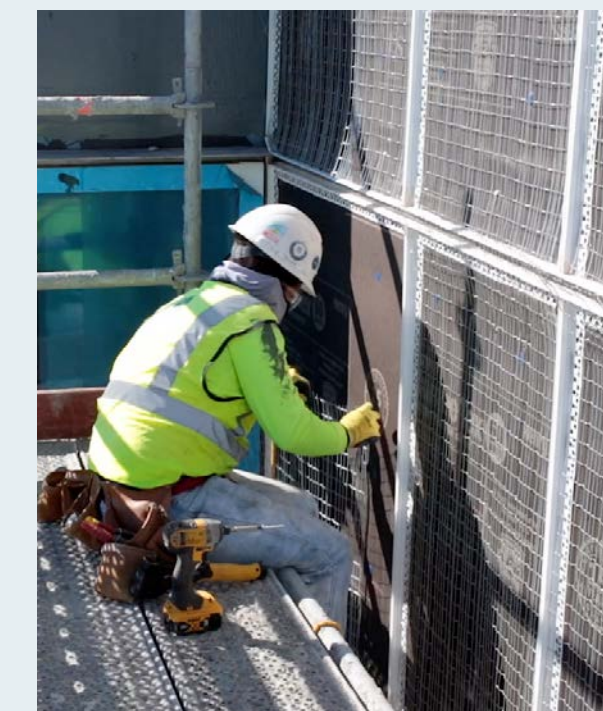
Faster and more efficient construction. Who doesn't want that?

Recently, ClarkDietrich assisted in the \$4.1 billion expansion of the Orlando International Airport (MCO) South Terminal with use of our Easy Embedment System (EES). The project, dating September 2019 through May 2021, included 164,000 square feet of exterior stucco application.

"The project was unique because the design included 'CI-Stucco,' or continuous insulation/stucco, where the rigid insulation was placed between the fiberglass Z-furring that ran horizontal on the wall, perpendicular to the stud framing behind. Therefore, the lathing had to be attached perpendicular to the framing per ASTM C1063, and that meant lath was needed to run vertical across the Z-girts," explained Chris Little, senior product manager, ClarkDietrich.

"There is only one metal lath approved to run vertical—Mega Lath by Structa Wire. We incorporated the E-Flange™-designed PVC accessories to complete the system for enhanced embedment," said Little.

EES was a perfect fit for this important project because it made stucco embedment fast and efficient on the job. The EES creates a finish that will stand up over time, reducing callbacks and failures due to moisture intrusion resulting from poor embedment. In addition, to help ensure proper installation and answer questions, ClarkDietrich provided technical support on-site at key points throughout the project.



"Several options were provided in the initial drawings, but the EES was chosen for its quality and ease of use," stated Jordan Villa, project manager, SkyBuilders USA, who served as the stucco subcontractor for the project. "The way we were able to bring the roll all the way to the top, hook it to screws, and work it downward, made the process quicker. Additionally, having the technical support rep on-site helping us throughout the project, making sure we were doing things correctly, really helped us out."

The EES addresses the top two causes of stucco failure: lack of embedment and failure to properly incorporate the control joints into the stucco panels. The most important part of the plastering application is the scratch-coat, and ClarkDietrich's EES provides the ideal foundation for lath embedment resulting in a durable, long-lasting stucco cladding. Because its components are engineered to take much of the guesswork out of stucco application, the EES gives even more novice contractors the tools to achieve master-level results.

CLARKDIETRICH'S E-FLANGE™ is a unique, raised, perforated flange design that provides 80 percent more stucco embedment than standard "flat flange" profiles, which can reduce chances of cracking and improve the long-term performance of the cladding. E-Flange is designed to allow the stucco mix to flow through triangle perforations and contact the wall, and its unique shape also allows for quick and easy tying of lath to the E-Flange joints.

BACKERBEAD® WITH E-FLANGE features a preset blue backer rod that is affixed to the vinyl casing bead and set to the exact height and depth. This allows the installer to create a gap on the wall without the hassle of aligning it in the field, thereby saving time and materials.

CLARKDIETRICH'S STRUCTA WIRE welded-wire lath products round out the EES by providing an engineered solution to enhance the performance of stucco cladding—and are a safe and secure method for stucco installation for building owners and contractors.

"One of the biggest selling factors was that with the vinyl system, as opposed to the diamond mesh system, the amount of rust and cracks were dramatically reduced," said Louis Adorno, project superintendent, SkyBuilders USA. "After completion, we did not have to go back, which saved us time. Once we applied the scratch, there were no issues. This Mega Lath was a game-changer and the E-Flange was spot-on for what we needed for this project."

The EES made installation for the Orlando Airport project faster and more efficient, creating a finish that will stand up over time—which is critical for a project of such magnitude.

To watch the video about the Orlando International Airport project, subscribe to ClarkDietrichTV on YouTube. ●

REACH THE FINISH LINE A WHOLE LOT FASTER.



You've got a lot of space to cover, and it's not all on the jobsite. ClarkDietrich finishing products elevate the quality of your craft and help eliminate the stuff that slows you down. From interior to exterior, our systems save steps, materials and hassles, so you can trade in the walls for whatever's waiting for you outside.

© 2022 ClarkDietrich

LEARN MORE AT
clarkdietrich.com

OVERTIME		REGULAR TIME	
IN	OUT	IN	OUT
DAY 1			
DAY 2			



ON POINT WITH PATRICK W. FORD PE, SE.

Technical Director, SFIA

There are a lot of options when specifying cold-formed steel framing members. Selecting the right steel stud for interior, non-load-bearing wall assemblies depends on a number of factors, including wall height, wall depth and other materials used in finishing the assembly, and are dictated by limiting heights tables published by the manufacturer or an industry association.

In 2015, the Steel Framing Industry Association (SFIA) introduced limiting heights tables for “composite assemblies” in its *Technical Guide for Cold-Formed Steel Framing Products*, based on joint testing between SFIA and the Steel Stud Manufacturing Association (SSMA). These tables allowed architects and specifiers to include the contribution of gypsum wall board to the total wall stiffness in determining the necessary thickness and rigidity of the steel framing member.

While there are certainly advantages to using composite assembly limiting heights, there are a number of caveats to understand when using these guidelines as the basis of steel stud selection—including the fact the wall board must be installed vertically, on both sides of the wall, and must go all the way from the floor to the top of the assembly. We recently sat down with Patrick Ford, technical director for the SFIA, to shed more light on the subject.

➤ Q. WHAT IS THE DEFINITION OF A COLD-FORMED, STEEL-FRAMED COMPOSITE WALL?

A. A composite wall accounts for the properties of the cladding as well as the stud alone. That is the simplest answer.

➤ Q. SO THEN, WHEN WE ASK ABOUT THE DEFINITION OF A COLD-FORMED, STEEL-FRAMED NON-COMPOSITE WALL, WE'RE JUST TALKING ABOUT THE STUDS?

A. That's correct. The properties of the studs alone.

➤ Q. WHO OR WHAT DEFINES COMPOSITE VS. NON-COMPOSITE?

A. That one's a little more complicated. The engineers essentially do, but the code may or may not recognize the composite wall assembly. So, it's actually the code.

➤ Q. WHAT COMMON PARTITION TYPES ARE CONSIDERED NON-COMPOSITE?

A. In reality, technically nearly all of them. Any stud partition that does not have cladding full height, and on both sides, all the way above the ceiling to the connection at the upper structure—and fastened to all framing—any of those are non-composite. If they don't have full cladding, full height from sky to ground, they're non-composite.

➤ Q. WHEN WOULD YOU CHOOSE ONE OVER THE OTHER?

A. The composite limiting heights are taller. It's more efficient, the size of the steel members would be smaller, and you would save money. It's that simple.

➤ Q. IN A COMPOSITE ASSEMBLY, DOES THE ORIENTATION OF THE GYPSUM BOARD MATTER (HORIZONTAL VS. VERTICAL)?

A. Absolutely. The composite assemblies that are listed in the limiting heights tables of the SFIA, for instance—and of virtually all manufacturers' composite limiting heights tables—are all based on wall board that is oriented vertically. And that is based on the test assemblies that were used in determining those heights.

➤ Q. SO, IF A CONTRACTOR WANTED TO INSTALL THE WALL BOARD HORIZONTALLY INSTEAD OF VERTICALLY, THEY WOULD HAVE TO DEFAULT TO THE NON-COMPOSITE LIMITING HEIGHT FOR THAT FRAMING MEMBER?

A. That is correct. Technically they would, yes.

➤ Q. WHAT IS THE ICC-ES AC86 TESTING PROTOCOL?

A. ICC-ES AC86 actually refers to a number of different reference standards, including AISI (American Iron and Steel Institute) standards. And we also reference the testing requirements and protocol in the SFIA appendix to our quality control program. But the ICC-ES AC86 testing protocol basically outlines how you must test these composite assemblies and how you develop the limiting heights tables from those.

Whether variables such as not having drywall fastened at a top slip track, which is commonly done nowadays, could have a significant effect on composite limiting heights, we really don't know. That's the long and the short of it. It could be a huge difference, it could be no difference at all, or it could be somewhere in between. So, the SFIA is actually looking into doing tests to find out.

➤ Q. DOES ICC-ES AC86 APPLY TO ALL MANUFACTURERS AS WELL AS ALL ASSOCIATIONS? WHY?

A. Oh, yes. If you want to have a composite limiting height indicated for your particular member, you have to follow it. The associations generally test to generic products, for obvious reasons, while manufacturers test for proprietary products, also for obvious reasons. But they must both meet the same criteria.

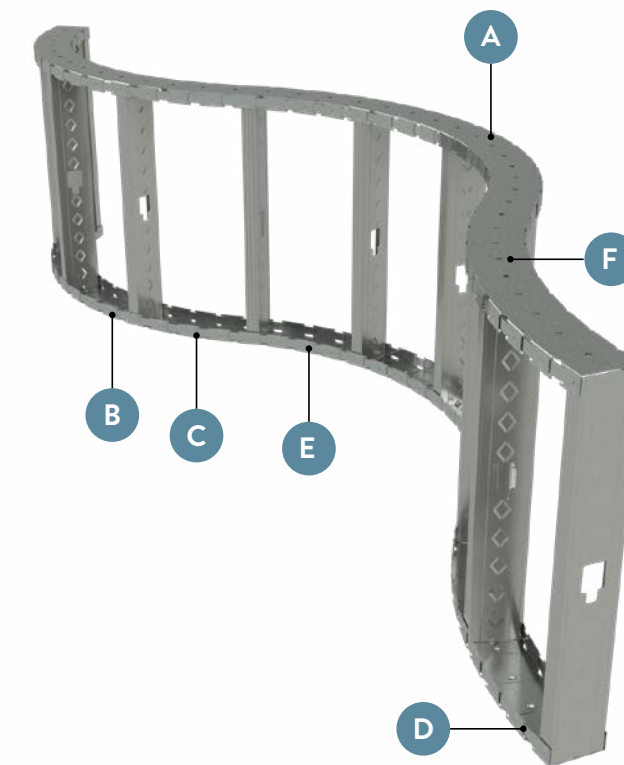
So that all member companies are testing the same way, the SFIA compliance program does require very specific details on the direction the wall board is installed, as well as fastening and the size of the framing member. This was done to ensure all manufacturers have comparable data when the compliance administrator evaluates their data. ●

360TRAK.™

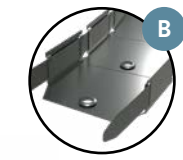
A flexible framing system to take your projects full circle.

UNIQUE TURNS. DRAMATIC TWISTS. INTRIGUING BENDS.

It's all possible with ClarkDietrich 360TRAK. This high-performance, flexible framing system makes customers' requests for complex and distinctive architecture simple. Ideal for non-load-bearing sweeping bulkheads, curved walls, wavy ceilings and more, it's available in four widths in 30 mils at a 10' length. ●



Bends easily by hand to form desired curve with varying radii.



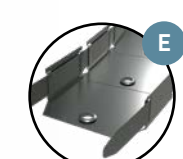
Adjustable leg straps slide through pivoting brackets to allow contouring.



Pre-drilled holes for easier stud attachment.



Can be cut to length in field and spliced using fasteners.



Adjustable leg straps create flexibility while holding shape during installation.



Can be bent in either direction. (No left- or right-handed part required.)

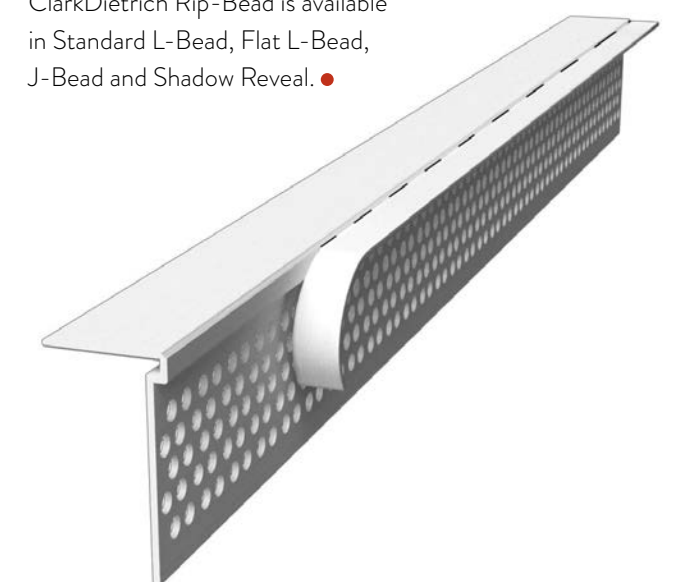
RIP-BEAD.®

Exact performance without all the effort.

Rip-Bead creates a clean line where dissimilar materials intersect, such as around ceilings, windows and doors. The 1/4" removable leg acts as a guide for the taping knife, and as a protective mask during application of joint compound. Further, our unique design:

- Eliminates cleanup and masking tape
- Resists rust and dents
- Enhances joint compound adhesion with multiple perforations
- Produces clean, finished lines at panel terminations

ClarkDietrich Rip-Bead is available in Standard L-Bead, Flat L-Bead, J-Bead and Shadow Reveal. ●



ASK ABOUT CLARKDIETRICH'S CAPABILITIES TO KEEP YOU DRY.

Effective moisture management for exterior finishing systems.

ClarkDietrich is adding a new solution to help contractors and builders address moisture management and drainage in exterior wall assemblies with the introduction of E-Screen—a polypropylene entangled mesh rainscreen drainage mat. E-Screen is available in 6mm and 10mm sizes and features a two-ply design that also deflects mortar when used in stucco or stone veneer installations.

E-Screen is designed for areas of the country that now require additional drainage due to excessive moisture. Specifically, it provides a solution to comply with recent changes to the International Building Code (IBC) relating to Water Resistive Barriers (WRBs) and lathing and furring for stucco. Effective January 2021, IBC Chapter 2510.6 requires two layers of WRB over wood-based sheathing, except in situations where the WRB is separated from the stucco by a non-water-absorbing layer or drainage space. Additionally, the code will require a ventilated air space between the stucco and WRB in Climate Zones 1A, 2A and 3A.

“An effective rainscreen is crucial for ensuring adequate drainage and ventilation in walls constructed with stucco, stone veneer, EIFS/DEFS, brick or fiber cement siding,” said Chris Little, senior product manager, ClarkDietrich. “Moisture inevitably finds its way into these wall systems through gaps, cracks and natural absorption of the materials, and E-Screen was developed to ensure this moisture doesn't become trapped inside the wall system where it can lead to rust, mold or rot issues.”

Traditionally, drainage in these types of applications is achieved by using furring strips. E-Screen eliminates the need for this extra step, reducing material costs, streamlining installation and providing a more effective moisture management solution.

E-Screen complements the hydrophobic nature of WRBs, which are used to prevent moisture from making contact with the sheathing. When coupled with ClarkDietrich E-Screen, the WRBs effectiveness is enhanced due to an increased

rate of drying due to the drainage and ventilation properties of the rainscreen. By allowing the excess moisture to drain away from the system, E-Screen minimizes the amount of water trapped inside the wall. Then, once the excess has been removed, the ventilation provided by the product allows the remaining moisture to dry quickly and effectively.

E-Screen joins the ClarkDietrich Easy Embedment System™, which comprises the company's Structa Wire products, and BackerBead® with E-Flange™ and Control Joint with E-Flange™. The Easy Embedment System reduces the top two causes of stucco failure: lack of embedment and failure to properly terminate at door and window penetrations. With the addition of E-Screen, the system can now address another potential cause of stucco failure by addressing moisture issues that can lead to cracking, rust and mold. And with such a contractor-friendly system, installers can achieve consistent results with minimal training or expertise. ●

IMMERSIVE SAFETY PROGRAM KICKS OFF AT CLARKDIETRICH.

This article originally published on the Mahoning Valley Manufacturers Coalition website, September 2021



Vienna, Ohio, is home to the largest manufacturer of cold-formed steel in North America.

ClarkDietrich, a new member of the Mahoning Valley Manufacturers Coalition, is that manufacturer.

It has three locations within 10 minutes of each other, the largest situated on Ridge Road in Vienna Township, with 150 employees.

The other two locations are in Warren: Warren East on North River Road with 85 employees, and CDH on Phoenix Road with 10 employees.

Nationwide, there are 1,500 employees in 14 plants.

ClarkDietrich's Vienna location is also the largest in the company, according to Tina Parker, senior human resources business partner.

It's about 350,000 square feet and houses 35 roll forming machines, a machine shop and maintenance team with electricians and machinists who keep the equipment operating.

A shipping department organizes all of the logistics of the steel onto trucks, Parker said.

SAFETY FIRST.

When employees walk through the entrance at the Vienna location, they are instantly reminded of best safety practices.

A bright dojo was recently added to the training process.

Dojos are designated spaces for immersive learning.

“Our parent company (CWBS-MISA Inc.) wanted us to spearhead this type of interactive safety exhibit to show new hires the right way” to lift and use different machines, Parker said.

GETTING TO WORK.

Leading the dojo project were Plant Supervisor Chris Plant and Plant Superintendent Alex Hertzler.

Hertzler connected various departments for the “very interactive, very bright” learning space, Parker said.

The concept, Hertzler said, is “overstimulation” from a safety standpoint. That's why it's bright with green floors and bright lighting, and hands-on.

“It was a really great effort by the team—supervisors, operators, maintenance. It was fun to see it all come together,” Parker said.

HOW IT WORKS.

The dojo gives new employees—some of whom may never have worked in a hands-on, manufacturing discipline—a first glimpse, making the industry less intimidating.

CLARKDIETRICH RECEIVES TOP RECOGNITION AS MILITARY FRIENDLY® COMPANY.

Placing a high value on hiring vets.

When Regional Controller Michael Cerni interviewed for his first position with ClarkDietrich more than seven years ago, it was his military experience that set him apart from other candidates. An Air Force veteran who logged more than 2,400 flight hours and 1,600 combat flight hours during several tours to the Middle East, Cerni had spent years honing skills that would serve him well in his civilian career.

“Attention to detail is a skill I refined in the military and it has proven to be an asset in my current accounting and finance role. In the military, small details could have life or death implications, whereas in my current position, small details can have large financial consequences,” Cerni said.

Like other veterans, Cerni credits his military service to his ability to rapidly change course and find creative solutions to business challenges.

“Problem solving is another skill I honed in the military that I use routinely today. In the military, we had to find a way to accomplish the mission, even if things didn't go according to plan. Today, problem solving is key as I analyze issues and find solutions for our customers.”

Cerni is one of many veterans who have achieved professional success with ClarkDietrich following military service, and is an example of the company's long-standing commitment to veterans and their families. It is because of this philosophy that the company has been named a Military Friendly Employer for the sixth consecutive year.

Cerni said he was initially attracted to working at ClarkDietrich because he felt the company culture was more akin to a small business in the way it treats and interacts with employees. As he has moved up within the company, he said he and his family have always felt supported.

“ClarkDietrich has been very good to my wife and I as we moved around the country for work. At every location, my coworkers and their families have been more than welcoming to us,” Cerni said. “As part of the relocation packages, my wife has even received help with résumé building and interview coaching.”

ClarkDietrich was awarded four levels of recognition as a 2022 Military Friendly Employer: Military Friendly



Employer; Military Spouse Friendly Employer; Military Friendly Supplier Diversity; and Military Friendly Company—a new designation for companies that have met or exceeded Military Friendly Employer standards in at least three out of four critical areas of commitment to the military community.

“The benefits veterans and their families bring to the workforce is evident in our offices and manufacturing facilities throughout the country,” said Jim Collins, president and CEO, ClarkDietrich. “The military-friendly environment at ClarkDietrich is a big part of who we are as a company, and moreover, being a Military Friendly Employer is just good business.”

Institutions earning the Military Friendly Employer designation were evaluated using both public data sources and survey responses. Over 1,000 companies participated in the 2022 Military Friendly survey. Since 2003, these lists have set the standard for organizations to provide the best opportunities for veterans and their spouses.

“Companies earning the Military Friendly Employers designation create and elevate the standard for military programs across the globe, they have invested in substantive programs to recruit, retain and advance the veterans and service members within their organizations,” said Kayla Lopez, director of military partnerships, Military Friendly.

The Military Friendly Employer list is compiled by VIQ TORY—publisher of *G.I. Jobs* and *Military Spouse* magazines, and considers the policies, processes, resources and investments that have the greatest impact on career opportunity and advancement for veterans and their families.

ClarkDietrich was showcased along with other 2022 Military Friendly Employers in the December issue of *G.I. Jobs* magazine and on MilitaryFriendly.com. ●

“It teaches someone who is maybe a spatial learner, rather than a textbook learner,” Hertzler said.

A mannequin wearing personal protective equipment greets employees, who then move down the hallway, which is divided into sections.

“It's nice because they're not practicing on necessarily real machinery” that could be dangerous, Parker said.

Miniature cranes and tow motors are part of the experience. Employees also learn the correct way to lift heavy objects.

ANOTHER DOJO ON THE WAY.

During pre-shift meetings, many employees will take time to stretch and limber up for the constant bending and stooping they'll do throughout their day, Parker said.

“Stretching before they start their shifts really helps. We really encourage them to participate in the pre-shift meetings, the stretching activities in particular,” Parker said.



Next, another dojo is in its infancy stages, but it will focus on another aspect, Hertzler said.

An operations/productions dojo will be added to the plant in the near future.

It will show how to gauge tooling, and “other simple concepts” that aren't necessarily second nature to a new employee jumping into the industry, he said.

ClarkDietrich is a newer member of MVMC. ●

STUCCO WOES? WE HAVE THE SOLUTION.

By Chris Little, CSI, CDT, LEED® Senior Product Manager, ClarkDietrich

When an architect, engineer or facility owner designs and specifies an exterior plaster system, they normally focus on colors, textures, and finishes. While these aesthetic features can be created with hard-coat plaster, they don't address the functionality of the cladding system. To ensure the stucco cladding system performs as it should, it is important to understand how the lathing system selected will interact with the stucco material—particularly the lath's ability to be embedded, or become covered by plaster.

There are a number of different lath materials available on the market today, each with their own pros and cons. Some are more commonly accepted in specific regions due to historical preference and methods of use on the jobsite. And some newer systems make solving the embedment equation easier than ever. Let's explore.

WHAT IS EMBEDMENT?

“Embedment” refers to when the lathing material is covered by the plaster, with the side that touches the substrate partially covered with the material. Specific to metal laths, the International Code Council's (ICC)-Acceptance Criteria (AC) 191 states that “metal plaster bases shall provide a minimum 1/4-inch embedment between the back plane of the metal plaster base (lath) and the back plane of the plaster for a minimum of one-half of the area of the metal plaster base.”



Red arrow shows areas with no embedment, from moisture or corrosion.

For example, when measuring a standard 27" x 97" sheet (2 sq. yards) of diamond mesh lath, the metal surface would be covered by 1/4" of plaster on the front and back of the diamonds for at least 1 sq. yard (9 sq. feet) of that sheet—which is approximately 50% of the sheet's total surface area. While meeting this 50% coverage measurement is achievable for code-compliant metal laths, some design styles provide a simpler, less faulty method to improve embedment.

To achieve lath embedment, it is important to maintain consistent tightness and furring of the lath against the base sheathing when attached. Also, the pressure by which the wet plaster is sprayed or hand-troweled into and through the lath improves embedment. So, the size of the lath openings that wet plaster will cover over, under, and all around, will improve this result.

POTENTIAL PROBLEMS RESULTING FROM IMPROPER EMBEDMENT.

Regardless the choice of lath type, the greater the level of plaster embedment achieved during application, the less likely the plaster system is to develop compromised stucco performance. One possible problem that can result from minimal embedment of the lath is cracking. When the scratch-coat does not embed the lath, it's often only applied on top of the lathing material like icing on cake, rather than covering through the lath. This can cause these materials to move independently of each other when subjected to seasonal weather changes, thus developing stress cracks. Over time, these cracks can allow bulk water to enter through the surface.



Stress-cracking can be caused by poor embedment or omission of control joints.

Corrosion is another risk resulting from improper stucco embedment. In some cases, incidental moisture that may enter the plaster matrix can cause rusting and corrosion of the metal lath material if plaster is not allowed to dry out. If the moisture persists and plaster cannot dry out, its presence could result in a premature failure of the lath. The better the lath embedment, the less likely it will oxidize and eventually rust under the stucco cladding.

If the plaster scratch-coat sits on top of the diamond lath, the back side of lath is minimally covered and exposed. As wind-driven rain and vapor drives force moisture through the plaster to the weather barrier, vapor condenses adjacent to the bare lath. If not dried out, oxidation begins and the 3 mils of zinc coating protecting the expanded metal lath begins to sacrifice, eventually eroding the zinc to expose the carbon steel. The result is lath corrosion and potential stucco failure.

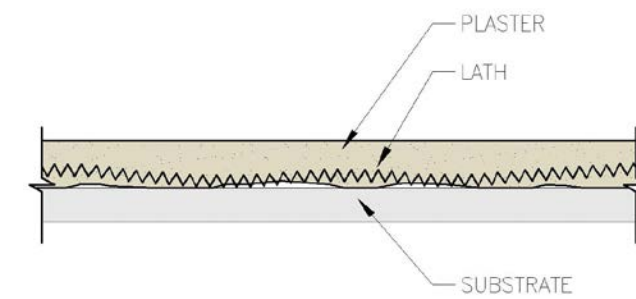


Corrosion can stay on a wall for years and then "give away" from a storm or wind event.

LATH TYPES AND THEIR EMBEDMENT PERFORMANCE.

Diamond Mesh Lath—ASTM C847: Standard Specification of Metal Lath defines sheet lath by weight, expressed in lbs./sq. yard, and the size of the diamond openings is not standardized. These openings range in size but are approximately 3/8" x 1/2" in length and width.

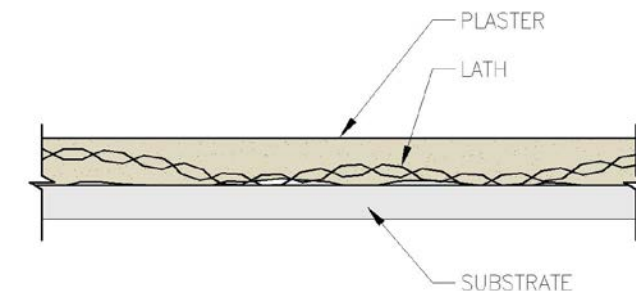
Diamond mesh lath manufacturers engineer their sheet products to achieve these specified weights. Expanded metal lath that is over-fastened to the substrate will restrict the passing of plaster through the diamond-shaped openings in the lath, negatively impacting embedment, especially at the edge joints and laps.



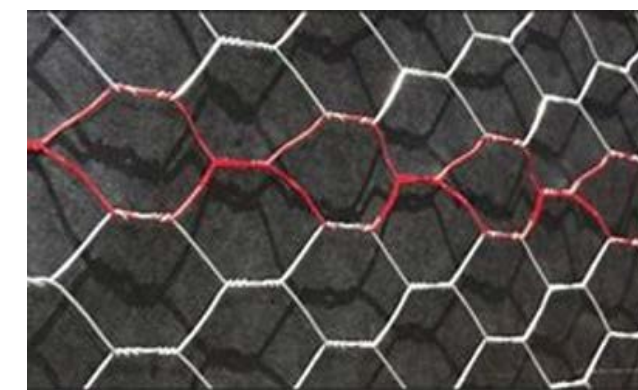
Paper-Backed Lath—Where a WRB is glued directly to the diamond mesh. This increases the challenge of properly embedding the lath, amplifying the difficulties because they can impede the plaster from spreading through the diamonds to get to the backside of the metal lath for embedment.

Because of this variability in diamond opening size, pressing wet plaster through the lath can be challenging. Plastering contractors often run their plaster “stiff” (i.e., less water in the stucco mixture or use of fibers) to get better surface contact with the diamonds and to assure adhesion. However, this stiff mix increases the difficulty of pushing the plaster through the diamonds, thereby reducing the level of embedment. While it is possible to achieve acceptable embedment with diamond mesh lath, the applicator must know precisely how to mix plaster to achieve a stiffness ideal for penetrating the diamond surface.

Woven Wire vs. Welded Wire Lath—For *woven wire lath*, ASTM C1032: Standard Specification for Woven Wire Plaster Base defines the gauge of wire, the required galvanization levels, and the opening size. Woven wire is made of 17ga.-20ga. wire that is wound into a hexagon with each adjoining shape woven together.

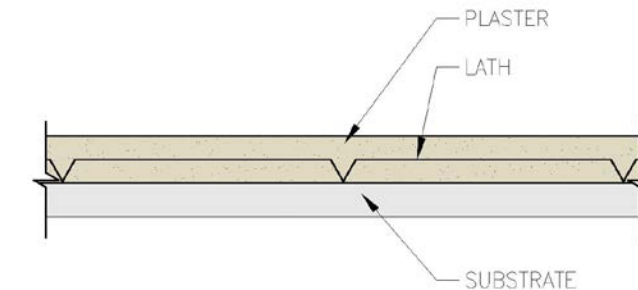


While woven wire has an open design and provides for easier keying and embedment of the scratch-coat, this style faces different challenges, like maintaining uniformity in furring distance on the wall. Some producers of this type lack the self-furring feature in the wire and don't provide the 1/4" self-furring needed on the wall. The contractor must then create proper furring depth using a special furring nail or furring wad. The self-furring inconsistency reduces the woven wire's ability to remain in the center of the scratch-coat. Additionally, over- or under-fastening woven wire lath can restrict its ability to respond appropriately to the pressure of the trowel when applying the scratch-coat. These inconsistencies can result in areas where embedment may not occur.



Woven wire, with red area showing self-furring.

Welded wire lath features an open-wire design like woven wire, but the manufacturing process incorporates fuse-welding at every crosswire intersection. The welding improves stiffness of the lath which enhances the wire's rigidity during installation and plastering. Because of the stiffness created in welded wire laths, it is perceived to be the easiest to embed due to the uniformity achieved by the welds and v-groove furring.



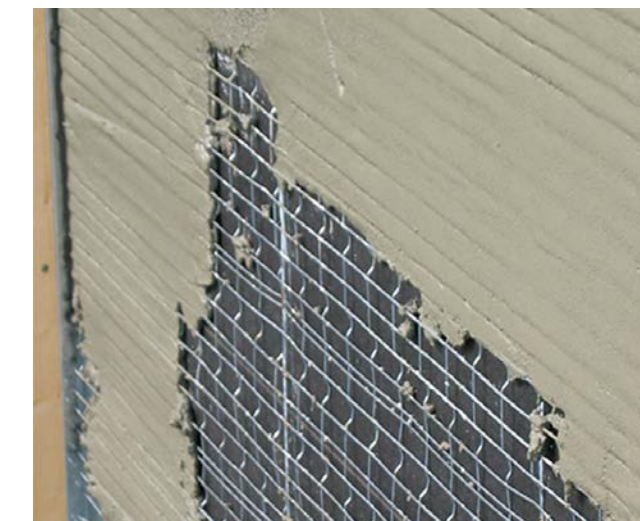
Application issues that do arise are seen when wet plaster mix is hand trowel applied during the scratch-coat. A more “wet” scratch-coat can slump off the wire before it can set. On the other hand, a drier mix may cavitate, or not fully pack around the wires; so it's important to blend a proper water/cement ratio for welded-wire lath applications.

But despite these nuances, welded wire lath provides a consistent, evenly furred surface that has openings wide enough to apply a proper plaster mix using the trowel to scratch—then horizontal strokes to smooth in the scratch

in preparation for the scoring lines before the brown-coat. This complete scratch-coat base will enhance the brown-coat and ultimately cut down on the number of finish-coat issues.

REGIONAL HISTORY AND INSTALLATION PREFERENCES.

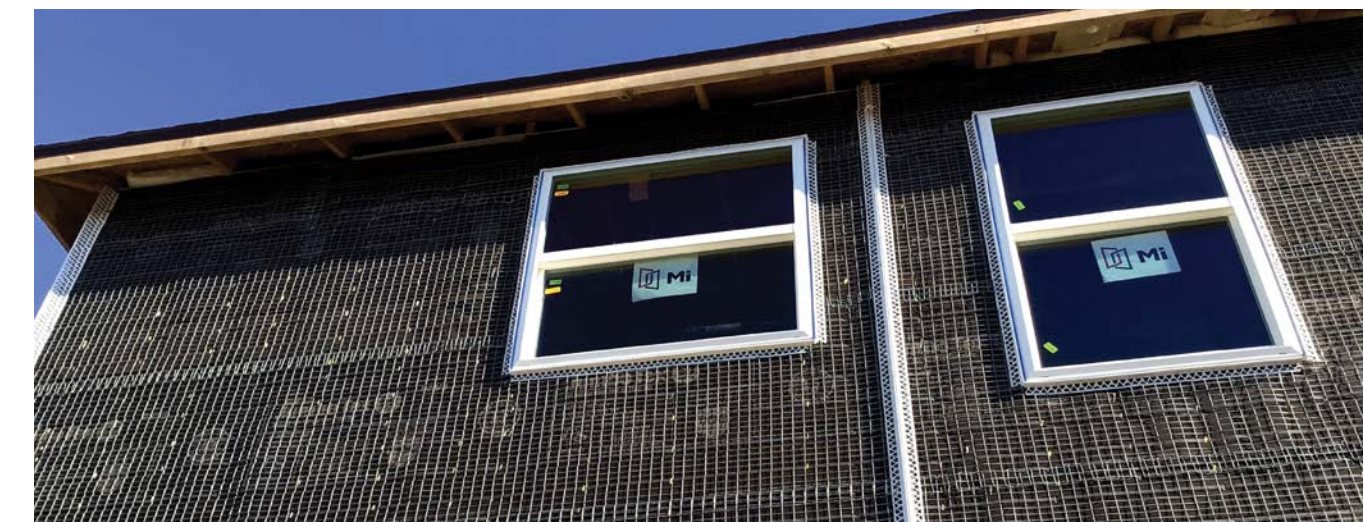
When we consider these three types of metal laths, the plastering industry has built historical preference for lath choice based on tradition, familiarity, local availability, and preferred installation methods.



Welded wire lays down evenly with uniform furring.

Diamond-mesh lath has historically been the option of choice in the Southeast, Northeast and Midwest. This is because many of these types of products were manufactured in the eastern U.S. and sheets were installed by multiple trades including plasterers and stone masons. Most all lathing and plastering in these regions is paddle-mixed and troweled directly onto the metal lath.

This “hawk and trowel” method of application is often used on smaller projects, or more spotty areas of application that aren't continuous, and requires the trowel operator to be skilled in placement of wet plaster into and through the metallic laths to embed them.



ClarkDietrich's Easy Embedment System reduces the top two causes of stucco failure: lack of embedment and failure to properly terminate at door and window penetrations.

In Texas and the Mountain states, a hybrid of diamond mesh sheets and woven wire laths makes up most of the market. This is because much work is performed by plasterers who use pumps, and others who follow the mixing and troweling traditions often used by the stone masons.

In the Western and Desert Southwest regions of the U.S., where stucco cladding makes up most of the residential construction and is also often used on very large commercial structures, woven wire and welded wire have really taken hold. This is because many of the applications in these regions are spray-applied to the lath, and troweled into a finish.

While both pumping/spraying plaster and hand troweling are allowed by ASTM standards and building codes, pumping/spraying is often preferable for larger projects where volume is needed. This method improves the embedment properties of the lath as the spray pressure will penetrate the lath openings.

SUMMARY.

Open wire designs tend to make lath embedment easier to achieve, with self-furred welded wire laths maintaining the most consistent furring across the plane of the surface. Regardless of which type of lath material used, uniformly fastened and evenly furred metal lath will greatly improve the embedment of the cladding system and provide the best opportunity for plaster and lath to act compositely and mitigate cracking.

Careful application and using the right plaster mix for your chosen application method is also imperative for ensuring that various types of metal lath will embed properly and perform for the life of the system. And understanding regional application preferences and material choices can further help you specify the right metal lath system for your project. ●

SPECIFYING THE OPTIMAL HEAD-OF-WALL FRAMING ASSEMBLY FOR YOUR NEXT PROJECT.

By Chuck Webb, PE, CSI, CDT, Technical Sales Manager, ClarkDietrich

Cold-formed steel is one of the most widely used framing materials because of its ability to provide strength and stability in a number of conditions. A well-designed framing system can accommodate forces imposed on the structure by gravity, wind uplift and seismic activity. A key element of this design is the system's ability to account for vertical movement of structural elements like floor systems and roof systems, by allowing them to deflect downwards or upwards without imposing axial loads to the wall stud members or to the gypsum wall board (or other wall substrates).

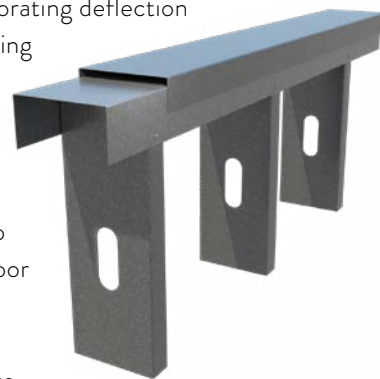
Wall framing often bears on the top of the slab of one floor level and frames to the underside of the floor or member(s) above. This is called infill framing or slab-to-slab framing. Where this occurs, a deflection joint (or gap) is required, if the wall framing needs to account for the compression or extension movement of the structure.

The deflection joint is the distance between the top of the stud framing to the underside of the substrate above (floor member or roof member) as defined by the architect or structural engineer. The top of the gypsum wall board to the underside of the substrate should also equal the same distance as the stud to substrate.

The performance of the connections holding all framing elements together is critically important, especially in coastal and high-seismic zones where structures face greater risk of movement, stress and loading, from natural events like earthquakes and high-velocity winds. However, a growing number of assembly methods can make head-of-wall framing confusing to navigate. Let's compare a few of the head-of-wall framing methods in use today.

TRADITIONAL DOUBLE TRACK.

One method of incorporating deflection into head-of-wall framing is a double track assembly. This method involves a custom-made deep leg outer track that is installed to the underside of the floor deck. A wall assembly constructed on the floor and slid into place, with a gap at the top to allow for deflection.



However, this type of track-over-track assembly is becoming less and less common. That's because the development of more innovative deflection systems has significantly improved and streamlined the assembly process.

SLOTTED TRACK.

A newer, more resilient head-of-wall framing method is a slotted track system. As their name indicates, these assemblies include tracks with vertical slots in the track legs. The wall stud framing members are secured to the deflection track utilizing waferhead screws through the center of the vertical slots on both track flanges. This allows the primary structure to compress or extend without imposing axial loads on the wall studs. And because the wall studs are secure at both flanges, stud rotation is prevented, eliminating the need to add lateral wall bridging 12" down from the top of stud.



Because they are a one-piece system, slotted track assemblies reduce head-of-wall framing material costs, and will reduce labor costs because of their ease of install. They are versatile and can be used for both interior non-load-bearing walls and exterior curtain-wall systems. And some products even include embossed guidelines at the center of the vertical deflection slots to help installers get comfortable with where to position fasteners accurately and quickly.

Despite their benefits, slotted track assemblies aren't ideal for every project. Slotted track systems are typically limited to 2" total deflection (1" compression, 1" extension), so if a larger gap is required, a deep leg or oversized runner track may be preferable. Also, because they are a relatively new method of head-of-wall framing, installers may find there is a bit of a learning curve with slotted track systems.

DEEP LEG TRACK WITH DEFLECTION CLIPS.

Deep leg track paired with deflection clips provides a versatile option that can deliver optimal results regardless of the installer's skill or experience, and can also deliver significant cost savings and efficiencies. In these assemblies,



deflection is handled by the clips rather than the track itself. An example would be the Fast Top™ Clip from ClarkDietrich, which features a solid leg and slotted leg and is designed to be used in place of, or in combination with, deflection track for infill curtain-wall assemblies to provide for vertical movement. The solid leg is affixed to the substrate and the slotted leg is attached to the stud web with proprietary screws that provide frictionless deflection. These clips are also embossed with fastening patterns to ensure accurate placement of fasteners.

Other deflection clips are available that require no screws at all. This type of clip can be installed either on the deflection track or on the stud members, further streamlining installation.



RIP TRACK.

In fire-rated assemblies where a larger deflection gap is required, a rip track system may be a good solution. A rip track is a deflection track with an offset shoulder that represents the thickness of the gypsum board (5/8" or 1-1/4"). A second piece of gypsum board is fit flush to the underside of the slab, or to a fluted deck, and is then fastened to the shoulder. This allows the roof/floor assembly and the rip track to move in relation to the wall assembly. This also allows the wall cladding strips (the rip board) that is attached to the rip track to slide over the primary wall assembly.

A rip track assembly can accommodate up to a 4" deflection joint, which is often required in large data center facilities. ClarkDietrich BlazeFrame® RipTRAK™ is the only UL-tested fire-rated, head-of-wall joint system that offers an alternate listing, by eliminating castle cuts and sealant in fluted deck assemblies and that meets UL 2079, 5th edition.

FIRE PROTECTION AT HEAD OF WALL.

Aside from accommodating structural deflection, head-of-wall framing assemblies often also include requirements for fire and smoke protection. If deflection



is required in a fire-rated wall assembly, then the head-of-wall deflection joint must be protected. In these cases, the aforementioned framing methods can be used in conjunction with third-party fire-rated products such as fire caulks or mineral wool and sealant. However, there are more labor-friendly options.

Some deflection track products—both slotted and deep leg—incorporate an intumescent strip on each track flange that expands in a heat event to protect from heat and flame passage. One major benefit of this approach is that it allows for deflection of the primary structure, while maintaining fire and smoke protection. This means the structure can compress or extend as needed by design and still maintain the integrity of the joint.

Depending on the building design, you may also be able to meet the latest fire code without the inclusion of intumescent materials. ClarkDietrich UltraBEAD is a proprietary compressible foam that provides a 1- or 2-hour fire-rated assembly under concrete floor decks for a 3/4" max. joint and is UL 2079, 5th edition compliant. Eliminating the need for intumescent materials results in a lower overall head-of-wall material cost, while providing smoke, fire and even sound containment.

KNOW WHEN TO ASK THE EXPERTS.

Each project is unique, and with so many head-of-wall assemblies and solutions to choose from, it's easy to question which is right for any given situation. As a manufacturer of systems that meet each of the assembly options, ClarkDietrich is committed to helping architects,

contractors and specifiers identify the ideal solutions for their projects. Our website enables users to filter products by parameters such as joint width and wall type. And if users would rather go straight to the experts, a dedicated Fire-Rated System Technical Support page makes it easy to get in touch: clarkdietrich.com/fire-rated-system-technical-support.

There's a lot to consider when designing head-of-wall systems, from adhering to the latest fire protection codes to incorporating adequate deflection for the project conditions. While traditional design methods may get the job done, newer alternatives can likely reduce total head-of-wall costs by saving on labor and materials. It's a great time to review how your project team approaches head-of-wall framing. ●

ANOTHER DAY ON THE WATER WITH MARTY PARSONS.

It's an unusually gorgeous morning, even for southern California, where each picture-perfect day seems to be in a beauty competition with the one before it. It's the kind of day that keeps people like Marty Parsons falling in love with the landscape over and over again with each new sunrise.

The hour is early. But Marty's already been at it awhile, gearing up the tackle and making the drive over to Lake Jennings. Awaiting him, the sights and sounds of several hours spent exploring the best spots to drop line into a freshly stocked body of mirror-blue water.

It could be the start of so many other mornings just like it, but it's not. As Marty gently revs the outboard motor and pulls away from the dock, this morning, something's different. This morning he's got an entourage. There's a film crew in tow—cameras, director, small crew and assorted creative types—to capture the whole adventure.

THANK YOU, MARTY.

As part of our "Time for What Matters" campaign, Marty generously gave us his time, professional perspectives and personal insights about the passion he pursues when he's not on the clock. "My life is on the water," testified Marty, as you can hear him say in our new two-minute feature video. The piece was artfully produced using the stunning images and unscripted interview-based audio captured over the course of two days close to San Diego.

Indeed, one amazing day was spent on the water. The other, on a working jobsite surrounded by ClarkDietrich steel framing products. During regular business hours, and often beyond, Marty applies his 30-plus years of industry experience as director of pre-construction/senior estimator for Brady SoCal in La Mesa. Suffice it to say, his knowledge of fishing and building things runs pretty deep.

TWO WORLDS. ONE MESSAGE.

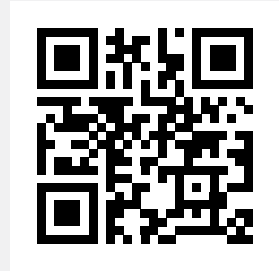
Depicting Marty actively engaged on both the jobsite and off helps us drive home our "Time for What Matters" message. As a manufacturing company in the business of producing framing and finishing systems, we absolutely believe *your work matters*. Bringing the best to a project in quality, strength and craft is at the heart of every true pro. Our products are certainly part of that story.

Our products are also designed with distinct features that make installation easier, completion times shorter and masterful results simpler to achieve. Because every minute and frustration eliminated from the job adds up to more hours to unwind and recharge later. Whether that time is spent fishing off a bass boat, kicking back with family, or finding work-life balance in a way that's unique to you.

At least with us, you'll find it a lot easier. ●



Time for watching.
To check out the new video, and hear Marty in his own words, scan this code or visit our ClarkDietrichTV YouTube channel.



MAXTRAK®

Slotted track performance that stands up to deflection.

The MaxTrak System allows for a positive connection between track and stud that accommodates the vertical live load movement of the primary structure without transferring axial loads to the wall studs. In addition, MaxTrak 2D has slots in the web to allow for vertical movement as well as horizontal drift when seismic designs are required. This one-piece system provides significant labor-savings by reducing the number of components required to frame a head-of-wall deflection system.

MaxTrak is fire-rated, UL classified and listed in over 90 UL head-of-wall designs in the U.S. and Canada. Additionally, MaxTrak contributes to the requirements for the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) certification points in the Construction Waste Management, Building Product Disclosure & Optimization: Sourcing of Raw Materials. Like all ClarkDietrich products, MaxTrak and MaxTrak 2D are available nationwide. ●

CONSTRUCTION ADVANTAGES

- Provides positive attachment to wall framing for overall wall strength with no additional components
- MaxTrak Non-Structural Systems are available with 2-1/2" legs
- MaxTrak Structural Systems are available in two leg lengths: 2-1/2" or 3" legs
- 2-1/2" Leg MaxTrak has 1-1/2" long slots with a total allowable vertical (deflection) movement of 1-1/2" (3/4"±)
- 3" Leg MaxTrak has 2" long slots with a total allowable vertical (deflection) movement of 2" (1"±)
- Total allowable horizontal (drift) movement of 4" (2"±) (MaxTrak 2D only)
- One-piece system reduces the cost of materials and labor
- Easy installation reduces labor costs
- Fire-rated system integrates with a variety of UL head-of-wall firestop systems
- MaxTrak 2-1/2" Leg system listed in code report, Intertek CCRR-0205
- Can be used for both interior non-load-bearing walls and exterior curtain-wall systems
- Embossed guideline at center of vertical deflection slot helps installers correctly position fasteners accurately and quickly

STICK TO THE MOST IMPORTANT SCHEDULE. YOURS.

ClarkDietrich

LEARN MORE AT
clarkdietrich.com

OVERTIME		REGULAR TIME	
		AM	PM
D			

Extra steps. More parts and pieces. Skilled labor issues. They all add up to one thing: less of doing what you really love. But with ClarkDietrich, time and innovation work in your favor. Our framing and finishing systems speed up and simplify installation. Because you've got better plans waiting.

© 2022 ClarkDietrich