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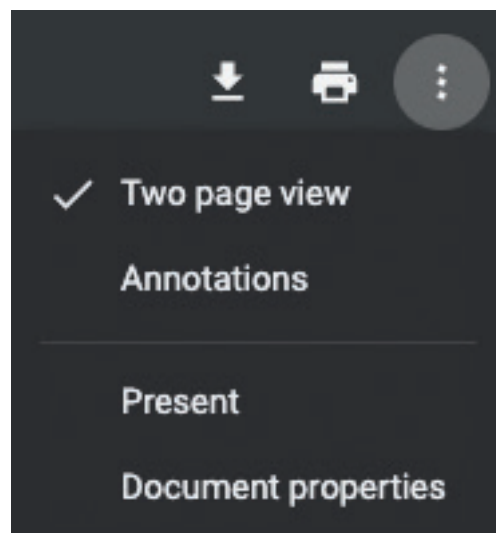
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GLASS

MAGAZINE

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NOVEMBER/DECEMBER 2024

RECAPTURING DIVISION 10

UNDERSTANDING
DIVISION 10
POSITIONS
GLAZIERS TO
WIN BACK WORK

— PLUS —

HANDLING
EQUIPMENT
SHOWCASE

NEW ERA FOR
EVERYDAY
MAINTENANCE

GLAZING
ADAPTS
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TRENDS

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GLAZIER
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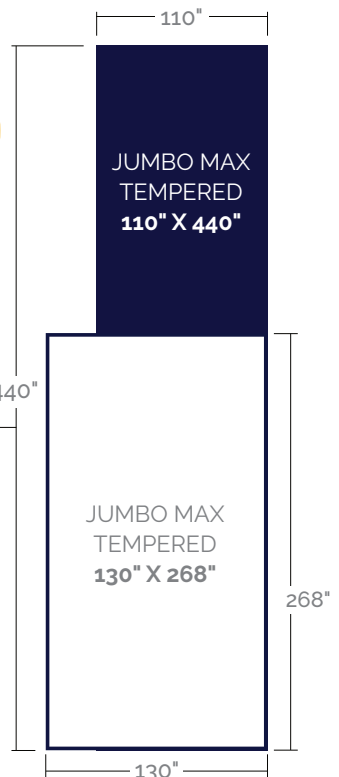
JUMBO

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Insulating glass system maintenance at Quanex plant in Cambridge, Ohio. Photo courtesy of Quanex.

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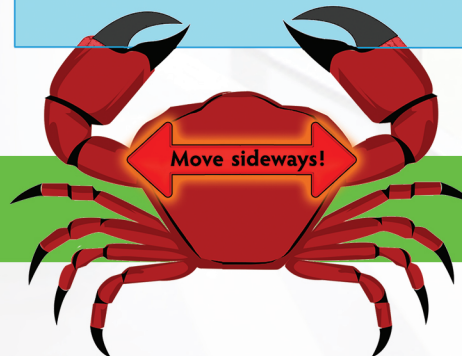


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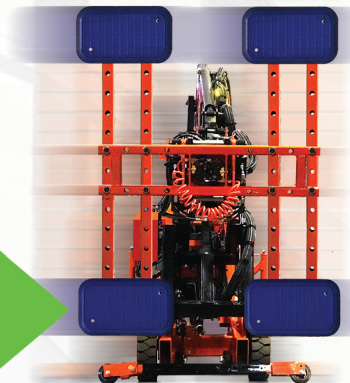
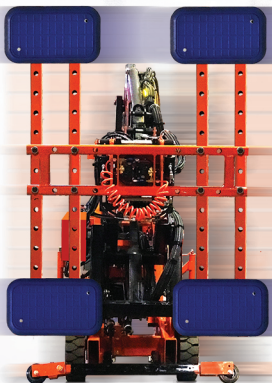
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NGA helps showcase glass and glazing as a rewarding career path to young people

AWARDS

Winners of the 2024 Glass Magazine Awards show how glass goes above and beyond

GLASS CAST PODCAST

Learn more on the need-to-know topics vital to anyone in the glass industry

GLASSBLOG



RECYCLING Circularity Offers Opportunities

By Marc Everling, Marc Everling Sustainable Communications



SUSTAINABILITY Record Heat Drives Innovation

By Avi Bar, Alpen High Performance Products



TRENDS GlassBuild Dallas Recap

By Max Perilstein, Sole Source Consultants

PROJECT SHOWCASE



The entrance to the Komodo restaurant at Fontainebleau Resort in Las Vegas, Nevada, features Pulp Studio's Infinity Mirror, a product that utilizes a one-way reflective glass opposite to a mirror to create the illusion of an infinity object. To achieve this striking look, the glass makeup on one side was bronze tint laminated onto a one-way bronze reflective glass, which was then positioned opposite a bronze mirror.

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INDUSTRY PARTNERS



Market Update from Dallas



KATY DEVLIN
Content Director
Editor-in-Chief
kdevlin@glass.org

From Sept. 30-Oct. 2, more than 9,400 glass and fenestration industry professionals descended on Dallas for the largest GlassBuild America in 16 years. I attended 10-plus hours of educational programming, toured the exhibit floor with over 500 exhibitors, and spoke to hundreds of industry leaders and stakeholders.

Below are a few top takeaways on the state of the market based on my time in Dallas. For more, check out the Glass Magazine recap on pages 36-40.

1. The nonresidential market is slowing.

The show floor was bustling. However, a number of exhibitors and attendees I spoke with at the show are starting to see business activity soften, with some pointing to post-pandemic high inflation, still-high interest rates and political uncertainty.

Per GlassBuild economic speaker Connor Lokar, senior forecaster, ITR Economics, the concerns of a slowdown are warranted, as nonresi-

dential construction is heading for a slowdown in 2025. However, glass companies shouldn't panic. "We want you to make sure that we are observing an appropriate amount of caution," says Lokar. "This is not the Great Recession. This is just a softening." Lokar says the market should rebound and "ramp up" in 2026-2027.

2. Employment is strong; labor is a struggle.

One reason for general economic optimism is employment. The September U.S. jobs report saw the economy add a higher-than-expected 254,000 jobs, while the unemployment rate fell to 4.1%.

Per Lokar, the ratio of unemployed Americans to job openings was between six and seven during the Great Recession. "That means there were between six and seven Americans actively seeking jobs for every job opening. That ratio today is about 0.9, which means there's less than one person per job opening," he says.

The tight labor market means the industry's top challenge—recruiting and training workers—will continue into the new year.

3. We need to meet the next generation where they are.

To recruit young people to the glass industry, we must reach out and engage them rather than wait for them to discover opportunities in glass. As part of NGA's effort to raise awareness of the glass and glazing trades and help the industry recruit new workers, GlassBuild welcomed over 50 high school students to the show floor as part of a field trip to learn about industry opportunities.

Stefanie Couch, founder of Grit Blueprint and speaker at the Glazing Executives Forum, emphasized the need for companies to improve their online presence to reach young people. "You've got to figure out how to make the next generation care about you," says Couch. "Gen Z has grown up with—and dearly loves—social media and technology. You must find them where they are." ■



NEW



A New Era of Shower Hinges is Here

Revolutionary New Design

The groundbreaking **Zero Hinge** embodies true innovation. Its superior strength can secure glass doors over **50% heavier and 15% wider** than standard hinges. In addition, the **Zero Hinge** can be completely installed from outside the shower enclosure to simplify and expedite installation.

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NEED-TO-KNOW INFORMATION FROM THE NGA



Immediate Past Chair Ron Crowl (left) receives a recognition award from 2024-25 term Chair Rick Locke.

NGA ANNOUNCES NEW BOARD OFFICERS

The National Glass Association announced new board officers for the 2024-25 term on Sept. 29, 2024, prior to the start of GlassBuild America: The Glass, Window & Door Expo in Dallas.

Board officers for the 2024-25 term are Chair Rick Locke, Montana Sash & Door; Chair-elect Tim Kelley, TriStar Glass Inc.; Treasurer Jim Stathopoulos, Ajay Glass; and Immediate Past Chair Ron Crowl, FeneTech, a Cynclly Company.

Returning board members are Tara Brummet, Vitrum Glass Group; Silas Koonse, Koonse Glass Co.; Courtney Little, ACE Glass; Jodi Martinez, AllStar Glass Co.; Syndi Sim, Q-railing; Taylor Anderson, Anderson Aluminum Corp.; and

Vipul Bhagat, Skyline Design.

Mark Seeton of Vitro Architectural Glass joins the board, filling the primary glass manufacturer seat for one term, with the opportunity to be nominated for a second consecutive term.

Departing the board are Kyle Sword, Pilkington North America, and Brian Hale, Hale Glass Inc. Sword served two consecutive one-year terms on the board as the primary glass manufacturer representative; Hale served a total of eight years having joined the board in 2016 and named as chair for 2022-23 and immediate past chair for 2023-24. NGA appreciates their dedication and leadership. ■

NGA ADVOCATES FOR HIGH-PERFORMANCE WINDOWS TAX CREDIT

NGA staff and consultants went to Washington, D.C., in September to meet with federal legislators to discuss expanding the investment tax credit for high-performance windows. Currently, Section 48 of the Internal Revenue Code includes an investment tax credit only available for electrochromic glass.

NGA requested to expand the types of high-performance windows eligible for the investment tax credit to include other types of dynamic glass, as well as triple glazing and vacuum insulating glazing. NGA also requested an extension on the deadline of the credit, which is set to expire on Jan. 1, 2025. Any construction needs to begin before that date to be eligible. ■



NGA's Tom Culp (far left) and Urmilla Sowell (upper right), and Laurie Purpuro (bottom right), government affairs advisor, K&L Gates, meet with Isabelle Zhan from the office of Michigan Senator Gary Peters.



From left, NGA moderator Sara Neiswanger, John Cox (Giroux Glass), Stephanie Aldrete (GlasPro), Kirk Johnson (Pulp Studio), and Abdul Aziz Zoua (Giroux Glass) during the Case Studies in Collaboration session.

BLUEPRINT FOR COLLABORATION BRINGS TOGETHER ARCHITECTS, DESIGNERS AND GLASS COMMUNITY

Blueprint for Collaboration illuminated the cutting-edge architectural solutions for glass and metals, including the newest solutions for dynamic and bird-safe glazing, school security, entry and sliding doors, custom windows, and more. Sponsored by Infinite Recycled Technologies, the programming included an industry trends roundtable focused on high-performance solutions, case studies in collaboration, codes and standards updates, 2025 forecast outlooks from leading construction economists and forecasters, and residential fenestration trends. NGA invited the architect and design community to the event, and all sessions were American Institute of Architects accredited.

The particular session—Case Studies for Collaboration—stressed the importance of collaboration between all parties, managing expectations at the beginning of a project, and the early involvement of glazing subcontractors for a well-executed glazing system design and installation. Recordings of all sessions will be available for on-demand viewing and credit hours at glass.org. ■

GLASSBUILD PODCAST STUDIO LAUNCHES IN DALLAS

For the first time, the GlassBuild America show floor featured the GlassBuild Podcast Studio, hosting podcast recordings for GlassCast and WindowCast, the official podcasts of the National Glass Association and its magazines, Glass Magazine and Window + Door.

Hosts Katy Devlin, NGA content director; Sara Neiswanger, NGA associate director of industry engagement; and Laurie Cowin, editor of Window + Door, welcomed industry leaders, decision makers and influencers for interviews in the glass-enclosed studio during the three-day expo. Guests included Steve Dean, president – Glass and Glazing Systems, for Oldcastle BuildingEnvelope; popular glass and fenestration voices Max Perilstein, owner of Sole Source Consultants,

and Stefanie Couch, founder of Grit Blueprint; the drivers of the new Shower Door Professionals Co-op, Christina Elia of The Shower Door Guy and Shannon McKinney of DT Glass Inc.; and more.

The GlassBuild Podcast Studio featured a decorative glass enclosure featuring the Dallas skyline, fabricated by Oldcastle BuildingEnvelope. Sponsors included: North American Specialty Laminators, Schott and VEKA. Additional episode sponsors included CRL, ODL, Quanex and Viprottron. Listen to the podcast episodes on all major podcast platforms. ■



[Learn more](#)

NGA GLASS CONFERENCE: CARLSBAD | FEBRUARY 3-6, 2025 | CARLSBAD, CALIFORNIA

The brightest technical minds behind the glass and glazing industry will gather here to discuss open NGA committee work items, new resource development, and trends and issues facing the industry. ■

BEC CONFERENCE | MARCH 2-4, 2025 | LAS VEGAS, NEVADA

A mix of educational presentations, tabletop displays and plenty of networking time, BEC Conference is geared to glazing contractors, with supporting participation by fabricators and suppliers. ■

GLASS ADVOCATE

GLASS' CONTRIBUTION TO TECHNOLOGY, SUSTAINABILITY AND STANDARDS EMPHASIZED AT NGA GLASS CONFERENCE: MILWAUKEE

Glass and glazing industry technical leaders at the NGA Glass Conference: Milwaukee in Milwaukee, Wisconsin, focused on how architectural glass can contribute to sustainability and recyclability, advancements in technology, and the latest updates to energy codes and standards. The three-day conference, held Aug. 6-8 and hosted by the National Glass Association, included meetings of the NGA Advocacy, Fabricating and Forming Committees.

Topics on the agenda included advancements in vacuum insulating glazing, material transparency standards, updated codes and opportunities for advocacy.

Committee updates

The **Forming Committee** announced a new legislative tracking database for NGA members on federal and state Buy Clean initiatives for low embodied carbon building materials. NGA will continue to work with stakeholders on these initiatives.

The **Advocacy Committee** recapped the third annual NGA Glass & Glazing Advocacy Days held May 14-15, in Washington, D.C. At this annual event, NGA works with lobbying firm K&L Gates to connect member companies in small groups with members of Congress, as well as representatives from governmental agencies to make a positive connection for glass to legislators. The 2025 event is tentatively scheduled for May 13-14, 2025, pending updates to the congressional calendar.

The **Fabricating Committee** reviewed the new coding system for Glass Technical Papers, or GTPs, which are balloted for systematic review every five years. If the GTP is republished with no technical changes, the original code is maintained with the current year added in parenthesis. If the GTP is revised with technical changes, the code is updated to reflect the current year.

New resources

NGA's various task groups have been

busy creating resources for the industry, available for download and/or purchase in NGA's online store at glass.org/store.

A new NGA Decorative Glazing Reference Manual is in development; a task group is working to update the NGA Laminated Glazing Reference Manual, including updated nomenclature for laminated glass; and new task groups were formed to update the Protective Glazing Manual and to draft resources for cleaning and maintaining bullet-resistant glazing. Also, the School Security task group is finalizing the draft of the new school security AIA presentation.

Fifteen GTPs have been updated in 2024, with review and revisions underway for "School Security Glazing," "Determining an Industry Acceptable Color Variance," the new "Wired Glass in Fire-Rated Safety Glazing Applications," and drafting new GTPs "Introduction to Digital Print" and "Recommended Practice for Defining Fabrication Details" for software and automation equipment.

Finally, the new American Institute of Architects presentation "Key Strategies of Bird-Friendly Glazing" is complete, the "Value-Added Performance of Coated Glass" was updated, the "Thermal Bridging Considerations at Interface Conditions" is coming soon, and a new AIA presentation on vacuum insulating glazing is in development.

Next meeting

The next meeting of NGA's Advocacy Fabricating and Forming Committees will be at the NGA Glass Conference: Carlsbad from Feb. 3-6, 2025, in Carlsbad, California. Learn more about the event at glass.org/event/nga-glass-conference-carlsbad. ■



GLASS INFORMATIONAL BULLETIN

APPLICATION GUIDELINES FOR GLASS ENTRANCE SYSTEMS

Glass entrance systems incorporate glass, metal rails, small metal patch fittings and sometimes structural silicone. Heavy glass provides sleek-looking entrance doors that make an elegant focal point and thus sets the stage for the building or shop.

Installation

Manufacturers of storefront and entrance systems supply a variety of products that make it possible for the architect to select systems with a broad range of appearance and structural properties. Manufacturers should be consulted for detailed installation instructions. Proper installation is important for a trouble-free entrance.

The quality of performance achieved in an entrance depends on three factors: design, manufacture and installation. These three stages of work may be the responsibility of three different parties: the architect, manufacturer and installing contractor. The result, therefore, depends on intelligent cooperation and

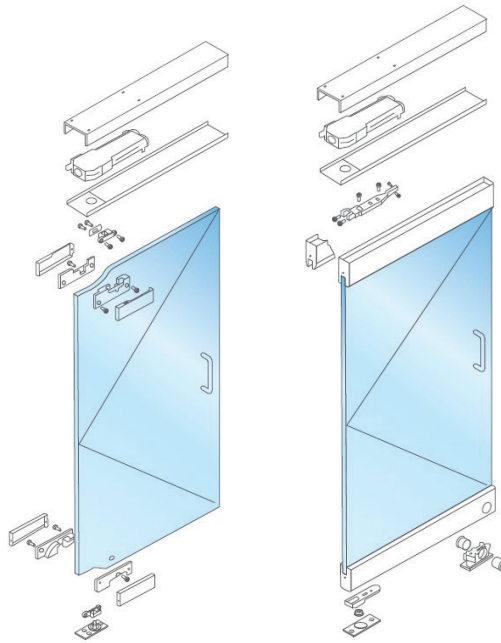


Figure 1. Concealed overhead closers, typically housed in a header tube above the door, are used for light-to-medium size and weight doors.

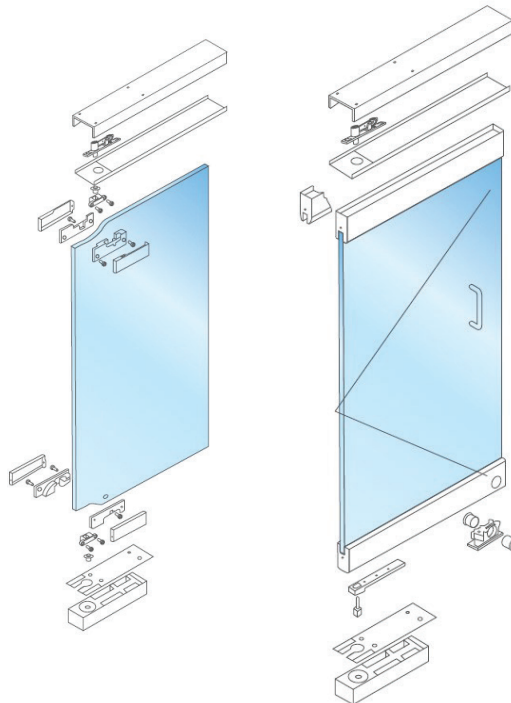


Figure 2. Floor closers are housed in a “cement case” permanently set in the floor prior to a floor being poured. Different sizes can accommodate all types of doors, from high traffic to those seldom used. Floor closers can typically handle heavier and wider doors than can a concealed overhead closer but may not be suitable due to floor condition limitations such as slab thickness. Graphics courtesy of CRL.

GLASS INFORMATIONAL BULLETIN — APPLICATION GUIDELINES FOR GLASS ENTRANCE SYSTEMS

teamwork. The importance of proper installation cannot be overemphasized. No entrance, however perfect in design and manufacture, will function properly unless installed correctly. The opening must be plumb and square, with the pivots aligned and firmly secured to solid supporting construction with adequate provision for anticipated movements due to seismic or thermal effects.

The opening

The opening in which the entrance is to be installed must be correctly sized, with plumb jambs and a level soffit or header. Another consideration is the floor and head condition, not only in the plane of the closed door, but also in front of and through the swing area of operation of the door. Unlevel floors can cause the door to bind in one area and have excess clearance under the door at the locking position so that the lock bolt will not engage.

Glass

The heavy glass in these systems is fully tempered glass equal to or greater than 3/8-inch (10 millimeters) thick, or tempered laminated glass constructed with two or more lites of glass equal to or greater than 1/2-inch (12 mm) thick. The glass cannot be modified after fabrication, so it is important that shop drawing measurements be field verified to ensure recommended tolerances are held. If heavy tempered or tempered laminated glass fins are required, they must be properly anchored to structurally adequate supports.

Installation of closers and pivots

The installation of door closers and pivots requires a high degree of precision.

Heavy Glass Door Design Manual



If the door is to operate properly, it is essential that the closer and pivots be installed plumb to each other and level.

Care must be taken to ensure floor reinforcing, electrical conduits or ventilation ductwork does not interfere with the closer installation because floor closers are embedded in the floor. The process may be complicated by the need to place the closer housing or cement case in its exact location before the finished slab is poured. Because floor closers are often located near the concrete floor slab edge, care must be taken to ensure the closer is supported adequately.

Concealed overhead closers are generally installed in an aluminum header that is attached either to vertical or horizontal load-carrying structural supports. The header must be installed level, and the closer spindle must be aligned and plumb with the bottom pivot.

When “pivot only” doors are used they should be locked in either the open or

closed position. Again, it is essential that the pivots be mounted plumb and level and secured to a load-carrying structural member.

Anchorage

Due to the weight of these systems, frames, sidelites, transoms and structural fins must be properly anchored to the structure. Special consideration may be required when securing these systems in exterior elevations.

Hardware installation and adjustment

Certain critical door hardware items such as pivots, locks and panic exit devices should be factory installed, reducing the chance that misalignment will interfere with proper operation. One of the most critical installations is that of panic exit hardware because faulty operation may affect emergency egress.

The installation of door closers is also a critical operation and must be done in strict accordance with the manufacturer’s instructions and templates. If the closer is improperly located or mounted, its proper operation will be affected.

Final operational adjustment of all hardware should be made by the installer of the entrance after all glazing is done and the building is completed and ready for occupancy. Some types of swing door hardware, such as pivots, may permit adjustment. Concealed overhead and floor closers can be adjusted to center the door. All closers should be adjusted in the field to obtain proper door closing sweep and latch speeds. All screws should be checked for proper torque according to the manufacturer’s recommendations. Over-torquing the screws can strip the threads and should be avoided. ■

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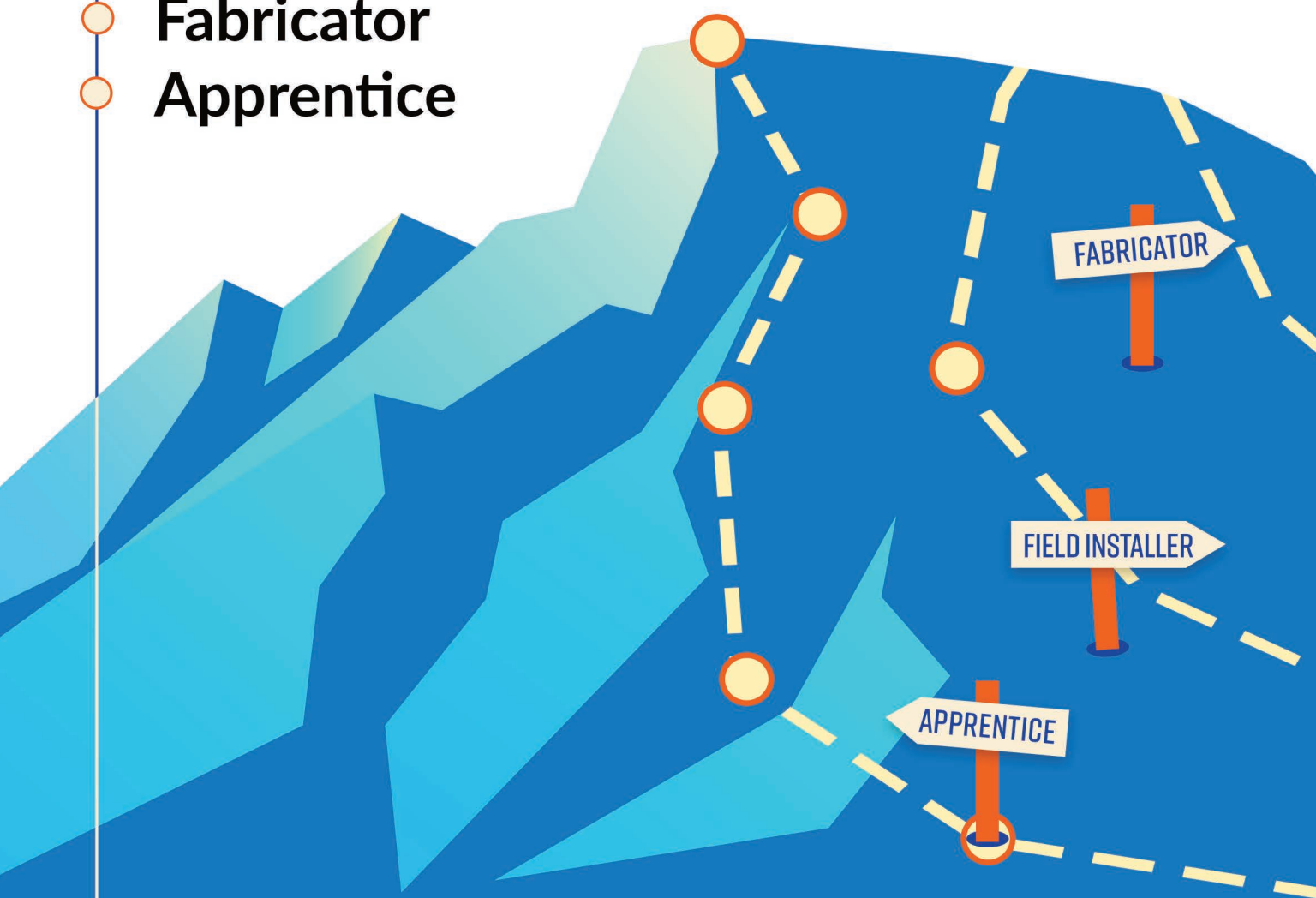
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NSG Group Plans Hydrogen Plant in UK

NSG Group announced that Pilkington United Kingdom Ltd., part of NSG Group, intends to use green hydrogen at its site and scale its production of low-carbon glass from 2027, under pioneering new plans with Grenian Hydrogen.

The new hydrogen plant at Pilkington UK's Greengate Works site in St. Helens would provide the furnace of the site with up to seven tons of zero-emission hydrogen each day. This would enable the company to eliminate 15,000 tons of carbon from its direct emissions each year, paving the way for the expanded production of low-carbon architectural glass for buildings.

Plans to build the hydrogen plant powered by renewable electricity were put forward for public consultation last month ahead of Grenian Hydrogen submitting a planning application this summer. It aims to start construction at Greengate Works in 2025 should the project be awarded funding under UK Governments Hydrogen Allocation Round 2, and to begin decarbonizing Pilkington UK and the surrounding industry by 2027. The project at Pilkington UK is the first that Grenian will submit for planning permission.

LuxWall Opens Advanced Glass Production Facility

Michigan Governor Gretchen Whitmer joined LuxWall CEO Scott Thomsen and state and local officials to officially open the company's new clean energy manufacturing compound in Litchfield, which will host a high-volume vacuum insulating glass production facility. The Litchfield site features automated

manufacturing, quality control, office space and laboratories to produce advanced, energy-efficient window products that will be sold to residential and commercial customers in the United States, Canada and Europe.

LuxWall's new site is part of a two-phase, \$165-million investment from LuxWall that will create 450 jobs in the state. The company is finalizing a site in Detroit for its second facility.

Assa Abloy Acquires Level Lock

Assa Abloy has acquired Level Lock, a technology solutions business based in Redwood City, California. Level Lock was founded in 2016 and has about 70 employees.

"The acquisition of Level Lock complements Assa Abloy's technology portfolio and strengthens our digital offering across multiple businesses in the Americas division," says Lucas Boselli, executive vice president and head of the Americas division, Assa Abloy. "Their innovative platform provides an easy transition from mechanical locking to digital access solutions with minimal effort."

MITER Foundation Partners with AFSP

The MITER Foundation, the charitable arm of MITER Brands, announced a multi-year partnership with the American Foundation for Suicide Prevention. The organizations will collaborate with a goal of educating MITER Brands team members on common risk factors and warning signs associated with suicide and providing guidance on how to keep themselves and others safe.

Through AFSP's Talk Saves Lives

program, MITER Brands and AFSP will focus on creating a workplace culture that is proactive about mental health. The Talk Saves Lives program uses healing conversations, engagement opportunities and other resources to provide participants with a better understanding on this leading cause of death, including the most up-to-date research on suicide prevention, and how individuals can act in their communities to save lives. MITER has donated \$100,000 to AFSP to support this work.

SolarWindow and Lippert Enter into Framework Agreement

Lippert Components Inc. and SolarWindow Technologies Inc. have agreed to jointly pursue the integration of SolarWindow technologies into select Lippert components to produce transparent electricity-generating SolarWindow-Lippert products.

"This collaboration with SolarWindow marks an opportunity to introduce innovations like electricity-generating glass into Lippert's existing recreational vehicle, marine vessel and specialty building product markets, while further strengthening our commitment to environmental stewardship, which is at the core of everything we do," says Jason Lippert, president and CEO, Lippert.

Air Louvers Becomes OEM Partner of TGP

To meet increased demand for fire-rated glass in hollow metal and wood doors, Air Louvers, a division of Activar Construction Products Group, is now an original equipment manufacturer partner of Technical Glass Products, a brand of Allegion. The expanded distribution



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NEWS TO KNOW

provides architects, glaziers and other building and design professionals with quick access to a wider range of fire-rated glazing solutions.

As a result, Air Louvers offers TGP's FireLite, FireLite Plus, FireLite NT and WireLite NT fire-rated glass from its facilities in Bloomington, Minnesota, and Commerce, California.

Swisspacer Launches First North American Distribution Center

Swisspacer announced the opening of its first North American distribution center in Closter, New Jersey, near New York City. This move is an effort to streamline the availability and delivery of Switzerland-based Swisspacer products to the North American construction markets.

The New Jersey distribution center offers the full Swisspacer product portfolio,

and all products are customized to local requirements. By creating this supply hub, Swisspacer is taking a step in its growing relationship with the market. The center provides benefits, including shorter delivery times, improved customer support and access to energy-efficient building materials.

U.S. DOE Announces \$90 Million in Funding

The United States Department of Energy announced \$90 million in additional funding to help states and cities implement updated energy codes for commercial and residential buildings. The funding will support 25 new projects nationwide to ensure buildings meet the latest energy-efficiency standards.

The aim of the funding is to lower energy bills and reduce greenhouse gas emissions. The first \$90 million in awards under the initiative was announced for 27 projects last year, and several glass-related companies have been awarded DOE funding, including AeroShield Materials, LuxWall, Vitro Architectural Glass and Oldcastle BuildingEnvelope.

This round of DOE funding focuses on rural communities, tribal nations and high-impact states with more construction volume, which may not be on the latest building codes and standards.

PEOPLE








Friese

Donald Friese, a renowned figure in the glass and glazing industry with over 60 years of experience, announced his return

*to the industry following six years of retirement. He plans to invest in education initiatives and serve as a strategic advisor to the **Frameless Hardware Company**. He is best known for his leadership as chairman and CEO of CRL, where he guided the company through significant growth and strategic acquisitions before its sale to Oldcastle BuildingEnvelope in 2015.*

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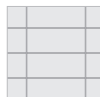
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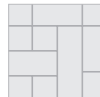
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NEWS TO KNOW



Custodio

ODL Inc. announced the appointment of *Daniel Custodio* to the role of vice president of sales in Canada. Prior to joining ODL, he held leadership positions at Cornerstone Building Brands. Custodio will report to Scot Harder, ODL's vice president of pro channel and custom sales.



Plotnick

Vitro Architectural Glass announced the promotion of commercial account manager *Daniel Plotnick* to manager of international sales. In this expanded role, Plotnick will lead a sales team consisting of Khaled Raslan, senior architectural manager, United Arab Emirates, and Roy Goh, architectural manager, Association of Southeast Asian Nations. He will also continue to support customers in the New England states and Western Europe regions.



Douglass

PurOptima appointed *Kelley Douglass* as the new regional business development and pre-construction manager in the U.S. Douglass will play a crucial role in supporting and expanding the company's Project Delivery Partner network across the U.S. Northeast and Midwest regions. Douglass joins PurOptima having held key positions such as architectural business development manager for CRL, director of sales for Holoform, eastern regional sales manager for DORMA Americas, and business development manager for KI. ■

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THE BOTTOM LINE: Glass and glazing companies should have comprehensive safety plans that cover hazard avoidance, equipment maintenance, reporting and OSHA compliance to prevent accidents and ensure proper incident response when workplace injuries occur.

the glass industry are being cited on a regular basis.

OSHA and its local state analog have regulations applicable to specific industries. Broadly speaking, many of these requirements can be grouped into six large categories.

01

Hazard mitigation

Employers must review workplaces and job functions to remove or mitigate recognized hazards. This includes complying with specific OSHA requirements for the conditions at a site, as well as how the work itself is performed.

02

Equipment maintenance

Any tools or equipment used in a job must be safe and well maintained. This does not inherently mean new, but sometimes developments in tools or equipment make replacement the safest option.

03

Hazard warning

Potential hazards present in the work and equipment being used must be given to all employees. These warnings must be clear and in a language that

LEGAL

A SAFER FUTURE THROUGH SAFETY PLANNING

COMPREHENSIVE SAFETY PLANNING FOR GLASS AND GLAZING WORKSITES CAN PREVENT ACCIDENTS AND PROTECT WORKERS

BY MATT JOHNSON



The adage goes, accidents hurt but safety doesn't. But when worksite accidents do happen, important and immediate risk management steps are needed.

Laws may vary from state to state, but a review of generally applicable duties for workplace safety and incident response is a best practice for all glass and glazing companies.

Working with glass, whether in the factory or on a jobsite, can be dangerous. Among the 10 most cited Occupational Safety and Health Administration violations year after year are failings in jobsite controls, personal protective equipment and machine guards used in manufacturing. Whether it is fall/scaffolding protection, hazard communication, or eye and face protection, safety concerns vital to

the workers can understand. These general notice sections are also where the required OSHA poster displays are found, and complying with those seemingly mundane requirements should not be overlooked.

04

Accident documentation

When accidents do happen, records of work-related incident and injuries must be maintained if an employer meets certain minimum thresholds. Where applicable, logs of injuries and illness can be required by OSHA and must be turned over for review. These logs can also be used to meet employee disclosure demands, when made.

05

Incident reporting

Serious incidents require immediate

action. Any workplace fatality must be reported to OSHA within eight hours, and serious dismemberment or disfiguring injuries reported within 24 hours.

06

Process cooperation

OSHA can compel access to injury and exposure records, but cooperation can smooth the process when those record requests are reasonable. Inspection and access to site work is also a required component. Beyond the agency itself, protecting individual workers who issue complaints is mandatory.

Creating a response tool

These categories are general descriptors and do not represent a full, OSHA-compliant program. In fact, OSHA itself recommends employers prepare and publish a health and

safety program that is specific to the industry and job functions of an employer. Regular use and updating of that kind of plan can also be a helpful response tool when legal contests arise or when incidents happen.

Thorough health and safety plans should identify responsibilities when a workplace incident happens. Preparing this plan process can also prove a valuable tool because it requires thinking through the formal requirements of an incident response and helps develop mitigation strategies. This is because while nearly all states require worker's compensation insurance that will respond when an incident happens, from a risk management perspective, it can be strategic to supplement the carrier's actions.

Responding to incidents

The immediate response to any workplace incident must treat the

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injured and protect others who might be exposed. Programs should define emergency treatment response obligations and the requirement to get expert help (like 911), as crucial first steps. Beyond the injury, there should be an assessment of the site to ensure the threat of injury to others is limited as much as possible.

Once immediate health and safety issues are addressed, gather information and evidence. Whether or not a formal legal claim may come in the future, the simple happening of an incident provides an opportunity to learn.

Employers can:

1. Take photos of the site.
2. Preserve equipment and machinery used in the accident with as little change as possible.
3. Collect witness statements.

Each of these steps provides a chance to record what happened close in time

to the incident, and an opportunity to revisit the incident later to identify chances to improve safety or develop new processes.

After those immediate steps, a plan should specify reporting to any worker’s compensation carrier and OSHA. Cooperating with the carrier and any investigating entity is crucial, and notice is the first step in that process. The carrier can also provide guidance on requirements for protection of the injured worker’s position and potential workplace accommodations that may be needed based on the injury.

Educating employees

Good health and safety plans also are important to employee education. Specific requirements to report any incident and secure medical treatment help protect workers and those who hire them. In addition, advisories

against certain conduct that can threaten safety and workman’s compensation coverage are also needed—things like substance abuse, intentional misconduct or violation of an established company policy can lead to injuries that have few remedies. Cautions against fraud are also needed.

Accidents happen. OSHA wants to help employers prevent those incidents. The best help, however, comes from health and safety planning specific to your company. A plan that provides incident guidance and education for employees can provide real safety. ■

Matt Johnson is a member of the Gary Law Group, a Portland-based firm specializing in legal and risk issues facing manufacturers of glazing products.



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Example of aluminum tie-rod door construction in use at RiverTown Crossings Mall in Grandville, Michigan. Photo by Jeff Tippett, courtesy of Tubelite.

CONSIDER THE CORNER

ALUMINUM ENTRY DOOR CORNER CONSTRUCTION CAN SIMPLIFY INSTALLATION, IMPROVE SERVICEABILITY AND EXTEND LONGEVITY
BY MARY AVERY



THE BOTTOM LINE: Aluminum entry doors with tie-rod corner construction offer better serviceability, flexibility and longevity compared to welded or shear clip designs, allowing easier modifications and repairs, making them a cost-effective, durable option for high-traffic installations.

High-traffic entry doors experience hundreds of thousands, or even millions, of openings and closings every year. They are one of the hardest-working elements of a building—a moving part with loading typically concentrated on two small hinging sites.

In an aluminum door dominated by glazing, the outer perimeter of the door must do the structural work. The thin outline-framework of extruded aluminum is made of vertical members called stiles and horizontal members called rails, which are joined at the corners. The strength of a door depends on the strength of its corners.

Most aluminum doors are made using one of three methods:

- Tie-rod construction uses steel rods across the top and bottom of the door. The rods are anchored in the vertical stiles and thread through the horizontal rails, tying the stiles to each other with the rails gripped in between. The rods have threaded ends and are secured with locknuts on both sides.
- Welded corners have a bracket screwed onto the stile and

then welded to the rail.

- Shear clip corners have a small piece of aluminum channel fastened to the stiles and then bolted to the top and bottom rails.

Doors with welded and tie-rod corner construction methods are equally durable. However, they have different advantages within manufacturing. For example, a welded door eliminates the material cost of the tie rod. On the other hand, a tie rod door does not require the set up and skilled labor necessary to fabricate a welded unit.

Considering installation, serviceability and longevity for the doors, tie-rod construction offers great savings and flexibility. If the door needs to be modified, or if parts need to be replaced, tie rods can be unfastened, and the door taken apart without diminishing its structural integrity, durability or finish.

There are millions of aluminum entry doors installed across the country, and some have been in service since the 1950s. Tie-rod doors can be refurbished, replacing worn parts. An installer can adjust the glass blocks and fasteners to bring door leaves back to square with the openings. Replacing the weatherstripping and seals optimizes air tightness. Worn-out individual elements, such as a rail or a stile, can be replaced on tie-rod doors. This approach may be considerably less expensive than a full replacement.

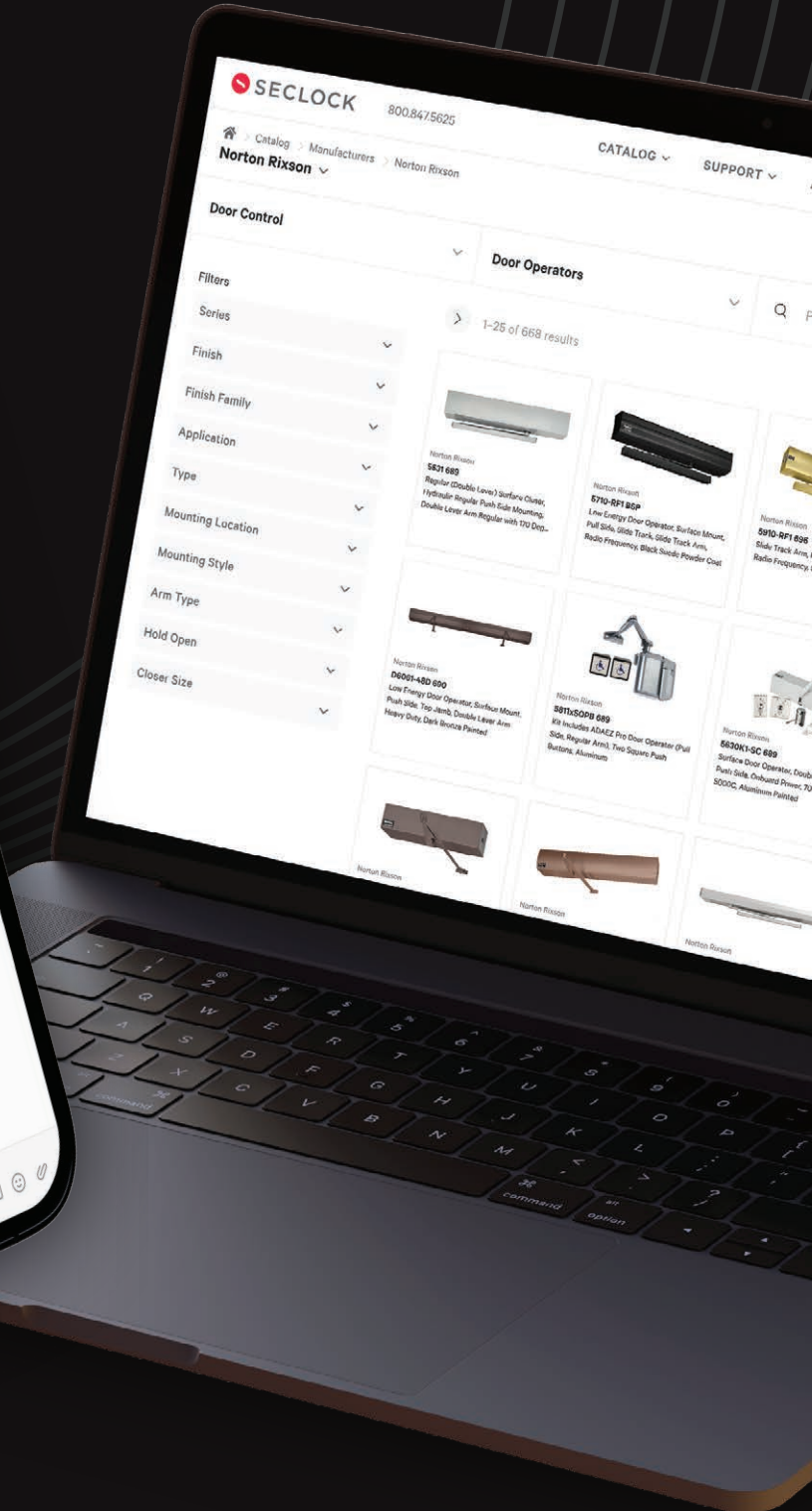
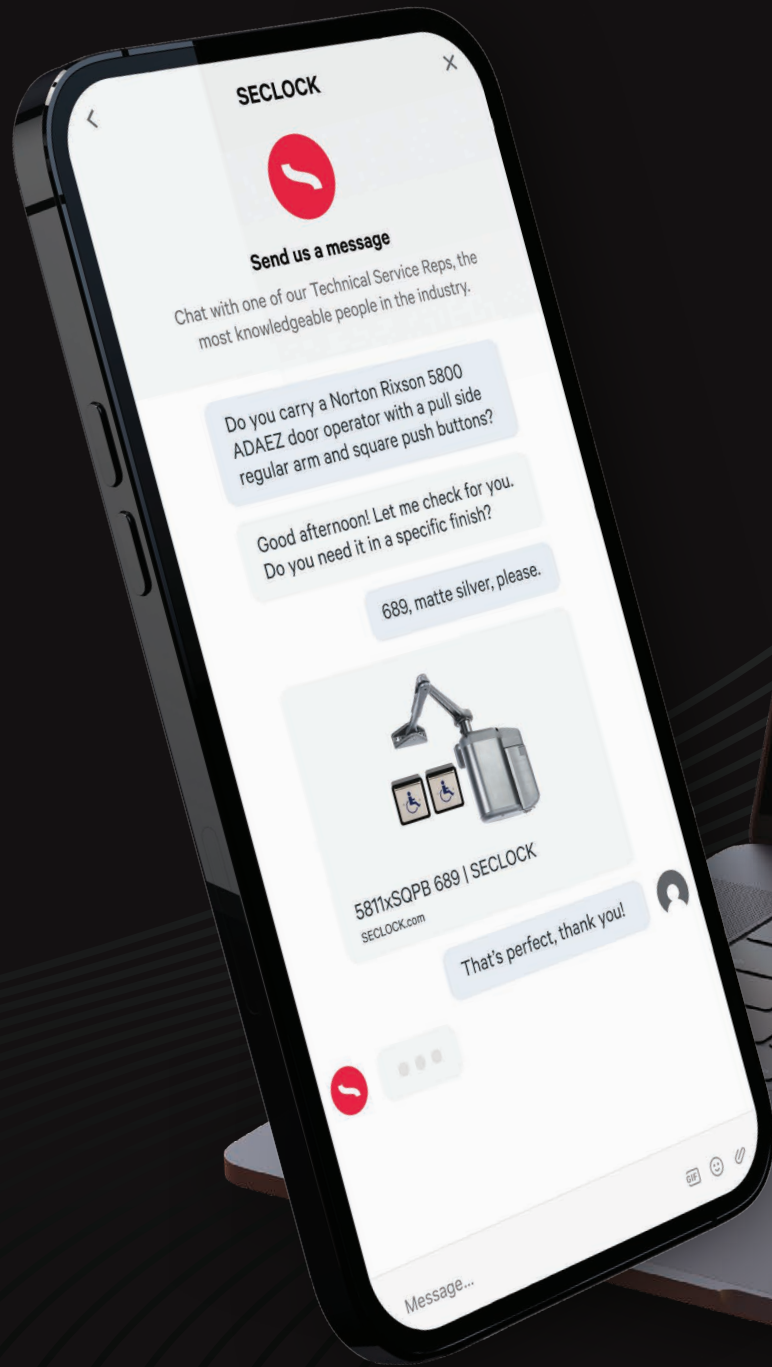
When a high-traffic door must be replaced or updated performance is desired, it does not mean the end of its life. Old doors can be reused in low-traffic applications, and tie-rod doors can be disassembled and used to repair similar doors.

A final purpose for aluminum door components is to recycle the metal for other construction materials or other products. Aluminum can be recycled with no loss of metallurgical properties and is one of the major reasons that aluminum remains an affordable, dependable architectural material. ■

Mary Avery serves as senior director of product management for Tubelite, Alumicor, EFCO and Linetec brands.

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Insulating glass system maintenance at Quanex plant in Cambridge, Ohio. Photo courtesy of Quanex.

A NEW ERA FOR EVERYDAY MAINTENANCE

MODERN EQUIPMENT REQUIRES NEW TASKS AND TECHNIQUES TO REMAIN OPTIMALLY FUNCTIONAL. ARE YOUR MAINTENANCE TEAMS UP TO THE TASK?

BY JOE ERB, JOHN RYBA

THE BOTTOM LINE: Maintaining an efficient automated commercial glass manufacturing floor requires proper equipment training, versatile maintenance teams skilled in both modern and fundamental techniques, and consistent preventive maintenance to ensure smooth operations and maximize equipment longevity.

An ideal version of the modern commercial glass manufacturing floor is a marvel of cutting-edge equipment and process optimization. Massive panes move seamlessly down the line, where spacer systems are applied accurately and consistently. Raw materials are always ready. Finished products are barcoded and efficiently loaded onto shipping trucks in strategic order and sent off to satisfied customers.

None of this happens by accident, of course. Automated lines aren't magic; this kind of synchrony only works after careful preparation prior to installing new equipment, proper training for line workers, and regular and consistent maintenance.

About that last part. Automated equipment requires different maintenance needs than more traditional manual machinery, which means maintenance teams must evolve their skill sets to stay ahead. Otherwise, the ideal modern manufacturing line comes grinding to a costly halt. And your investment in cutting-edge equipment may not pay off in the ways you expected.

To ensure your maintenance teams are up to the task of keeping your new equipment in good working condition, here are a few points to consider.

Getting in tune

Where conventional manufacturing maintenance tasks were once accomplished by “jack-of-all-trades” technicians, modern equipment—in the commercial glass space and elsewhere—is increasingly specialized and specific.

This means a few things for your maintenance crews. The first is that proper training is required to get and stay up to speed on these new needs. You should work closely with your equipment suppliers not just to get the machines online, but also to understand ongoing maintenance tasks that will keep them running smoothly over the long term. Importantly, your maintenance teams will need to keep an open mind about new ways of doing things—today's commercial glass maintenance technicians need to be versatile, adaptable and capable of applying new strategies to maximize equipment performance and life.

Elsewhere, you should investigate simplified installation for product components. For example, metal and other rigid spacer bar systems require pre-assembly of multiple components

to complete the unit's edge seal. These components include the spacer itself, corner keys and desiccant. Comparatively, flexible spacer systems with integrated desiccant require no such pre-assembly processes, leading to simpler and more efficient fabrication.

When investing in new equipment, component selection is critical. It's worth doing your due diligence, as some options are more suitable to modern equipment than others.

Don't forget the fundamentals

While maintaining automated equipment requires more sophisticated skill sets, some maintenance strategies never go out of style.

For example, the preventive maintenance program is a necessity no matter the age of your machines. These daily, weekly, monthly and annual tasks can go a long way toward optimizing processes when put into practice on

manufacturing floors. Ensuring your teams perform preventive maintenance tasks consistently and on schedule is key to keep machines in top condition. A preventive maintenance checklist might include things as simple as greasing bearings on a machine or as complex as dismantling the glass washing station for a thorough evaluation and cleaning. These tasks must follow a regular schedule to maintain preventive maintenance program effectiveness.

During busier times of the year, when production is running at full steam to satisfy orders, it can be easy for maintenance practices to fall by the wayside. Preventive maintenance requires making time for these activities, no matter how many orders are coming in. Here, production and maintenance teams should communicate and operate in sync. That might involve collaboration on timing, schedules and other accommodations, as necessary.

No production team is successful without the maintenance team, and no maintenance team is successful without the production team. Reliable equipment that works safely and consistently enables production of high-quality products for your customers. Simultaneously, consistent, high-quality production enables maintenance teams to focus on proactive—rather than reactive—tasks that keep your entire operation running smoothly. Plant managers and shift supervisors should work to encourage this mindset.

Getting the most from your investment in automation depends upon your commitment to good maintenance practices. In our new era of commercial glass fabrication, it can make all the difference. ■

Joe Erb is Quanex national account manager, and John Ryba is Quanex director of technical services.

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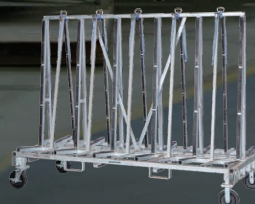
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THE FUTURE OF GLAZING LOOKS TO ENHANCE SAFETY, SUSTAINABILITY AND DESIGN INNOVATION FOR BETTER BUILDING PERFORMANCE AND OCCUPANT WELL-BEING

BY DEVIN BOWMAN



The glazing industry changes constantly, requiring architects, glaziers and manufacturers to adapt. Likewise, designers push the envelope on glazing use—planning buildings that incorporate larger lites, narrower frames and higher performance ratings into more spaces. Each year, the glazing industry responds with new developments and better performing systems.

How has the glazing landscape changed? What trends can we expect in the new year?

More security-rated glass in schools

According to reports from Glass Magazine, glaziers have seen more projects with security- and ballistic-rated glass year over year. In 2021, 48% of glaziers were involved with projects that included



Mass timber and timber curtain walls support sustainable and biophilic design. Photo by Dave Burk at Skidmore, Owings & Merrill, courtesy of Technical Glass Products.

THE BOTTOM LINE: The glazing industry continues to evolve with trends like increased use of security-rated glass, improved acoustics, timber curtain walls for sustainable design and hurricane-rated systems, all aimed at enhancing occupant safety, experience and wellness.

security-rated glass. In 2024, 73% of glaziers had projects that used ballistic-rated glass, making it the second most specified specialty glazing after fire-rated glass.

As the number of projects that use security- and ballistic-rated glass increases, it may be more common to see instances where multiple safety and security concerns overlap. In these cases, glazing systems tested to meet standards for fire and security ratings can be a viable solution for achieving enhanced security and code compliance.

Improving building acoustics

For both the interior and exterior of a

building, designing for an acoustically comfortable environment is an increasingly important consideration for privacy and positive occupant-experiences. This is especially true as urban density increases and flexible design becomes more common, both of which can prompt acoustic isolation considerations.

Designers have responded by using acoustic paneling, artificial intelligence to improve room acoustics and biophilic design to absorb sound.

Glass can also contribute to acoustic design. It can improve access to daylight to support sound absorbing plants. Further, channel glass can meet

acoustic performance goals on both sides of the building façade with Sound Transmission Class ratings up to 44.

Branching into timber construction

As sustainability and biophilic design receive more emphasis, mass timber projects and timber curtain wall systems will likely see increased popularity.

Timber curtain walls help connect occupants to their surroundings while also providing the warm aesthetics of wood to interior spaces. As a structural-load bearing system, this turn-key solution allows large free spans without additional supports. Likewise, these systems represent lower embodied carbon and improved thermal breaks for more eco-friendly construction and operation.

With these benefits, timber curtain walls are set to see more prominence in university and other commercial construction projects.

Improved weather resilience

As the building industry continues

to push for net zero, architects are constantly navigating challenges in increasingly stringent energy code requirements. However, sustainability goes beyond energy efficiency. It also includes a building's ability to withstand natural disasters.

According to Princeton researchers, the frequency of windstorms and hurricanes has increased and is likely to continue to. This makes designing buildings that can endure the elements important for both occupant safety and environmentally friendly construction.

As such, architects may see more projects that request walls and roofs with higher impact and wind resistance ratings. Both qualities can support buildings that more readily withstand extreme weather. While previously this may have meant using opaque materials, designers now have more options, including glass that has high impact ratings and framing with optimum wind load resistance.

Hurricane-rated glazing systems can help building professionals protect

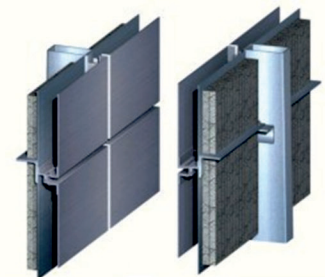
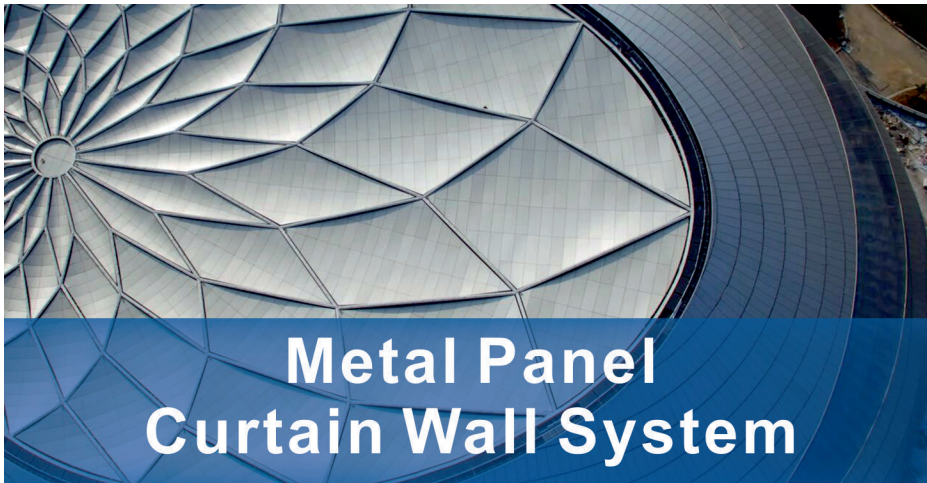
occupants from wind and debris and improve sustainability by reducing the need for reconstruction after intense storms—all without compromising views outside of the built environment.

Enhanced occupant experience

No matter what prompts an industry change, it is almost always to improve occupant experience, safety and wellness. This is particularly important given the Environmental Protection Agency estimates Americans spend between 70% to 90% of their time indoors.

Finding new and better ways to support occupants physically and psychologically will continue to be at the heart of most design and construction trends. And glass will remain a viable solution to these changes and challenges. ■

Devin Bowman is general manager of Technical Glass Products and AD Systems, actively involved in advancing fire- and life-safety codes.



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THE BOTTOM LINE: There is a vital need for updated and comprehensive safety training in glazing, focusing on both fall protection and standardized glass-handling procedures to address the evolving risks glaziers face, particularly with larger glass installations.

ENSURING GLAZIER SAFETY PROCEDURES

WHILE CARE AND ATTENTION IN GLASS HANDLING IS CRITICAL, GLAZIER SAFETY AND TRAINING SHOULD ENCOMPASS FALL PROTECTION AND COMPREHENSIVE GLASS AND CRATE HANDLING PROCEDURES

BY RICK TAYLOR

The article in the November/December 2023 issue of Glass Magazine, “Glass Handling Safety” emphasizes the importance of care and attention in glass handling. However glazier safety and training should encompass not only fall protection methods but also comprehensive glass and crate handling procedures.

Fall protection training: An evolving landscape

It is essential to recognize the significant changes in fall protection training and equipment since the updates to the American National Standards Institute’s Z359 standards in 2012 and 2014. While fall protection equipment manufacturers have responded to these recommendations, it appears that glazier fall protection training and equipment updates may not have kept pace with these industry changes.

Glazing is a safe trade when the best available practices are adopted. However, those best practices are not routine and standard throughout the glazing construction industry.

Glass handling methods in commercial construction

Glazing safety should extend beyond fall protection and address the specific challenges of glass handling in commercial construction. Best practices for safe glass handling should be adopted from the moment the glass arrives at the construction site, continuing through fabrication shops and final installation. Unfortunately, these best practices are not standardized across the glazing construction industry, and comprehensive training often falls short.

To ensure the safety of glaziers, specific procedures should be followed sequentially throughout the glass handling process.

01. Receiving and temporary storage

- Remove glass crates from delivery trucks.
- Move crates across construction sites to designated temporary storage locations.
- Safely stock and secure crates for temporary storage.

02. Preparing for installation

- Move crated glass to stock on the structure for temporary storage.
- Secure crates temporarily until openings are prepared, and frames are ready for glass installation.
- Later, safely remove glass from the crates.

03. Installing glass

- Transport glass to its opening.
- Lift the glass into its frame and install clips for secure placement.
- Manual lifting is often involved, as mechanical means to lift and insert the glass into the opening are not always applied.

Challenges in large glass installations

The glass industry is witnessing a trend towards larger lites of glass, necessitating the use of fall protection equipment during installations. Glaziers handling glass and crates continuously face crushing hazards and the risk of lifting sprains and strains.

Glazier safety is a critical aspect of the construction industry that requires urgent attention. The current training provided falls short of addressing the comprehensive scope of hazards faced by glaziers during glass handling. To ensure the well-being of glaziers, it is imperative to adopt standardized and updated best practices throughout the industry. ■

Rick Taylor is the safety director at Horizon Glass & Glazing.



“Ferrari Red” glass wall cladding at Ferrari of Philadelphia. Photos courtesy of South Jersey Glass & Doors.

GREAT GLAZING: FERRARI OF PHILADELPHIA

FABRICATOR

GGI (GENERAL GLASS INTERNATIONAL)

GLAZING CONTRACTOR

SOUTH JERSEY GLASS & DOOR

GLASS SUPPLIER

GGI (GENERAL GLASS INTERNATIONAL)

OWNER/DEVELOPER

RDS AUTOMOTIVE GROUP

ARCHITECT

KD2 ARCHITECTS

GENERAL CONTRACTOR

GABRIEL BUILDING GROUP

THE BASICS

Ferrari Philadelphia recently opened its new location in Newtown Square, Pennsylvania, attracting international attention with the 2023 Ferrari Cavallino Award. This prestigious award recognizes the dealership’s outstanding commitment to the brand, ranking it among the top Ferrari dealerships globally. Prior to relocating, the property underwent a complete renovation to embody Ferrari’s luxury and sophistication. The facility includes a world-class showroom, state-of-the-art sales center and advanced service center, all thoughtfully designed to elevate the Ferrari experience for customers.

THE DESIGN

KD2 Architects transformed the property into a space that embodies Ferrari’s luxury

and performance ethos.

The design aimed to create an immersive experience reflecting Ferrari’s reputation for excellence. A key visual element is the extensive use of custom glass, which is a stunning backdrop to the brand’s high-end performance and luxury. The standout feature is the “Ferrari Red” glass wall cladding, a bold choice dominating the interior. In contrast, the grey-tinted interior glass wall systems subtly define office spaces, conference rooms and service areas, ensuring functionality while enhancing the showroom’s appeal.

THE MATERIALS

The aesthetics and durability of the materials used in the Ferrari Philadelphia dealership were carefully selected to align with the brand’s luxury image. The standout feature is

the custom Ferrari Red glass wall cladding, fabricated by GGI with ¼-inch (6 millimeter) low-iron glass for precise color matching of the back-painted finish. This vivid color, with both reflective and satin finishes, is used throughout the dealership, creating a cohesive and striking interior. South Jersey Glass & Door installed the interior glass wall systems using ½-inch (12 mm) grey tempered glass with polished stainless-steel hardware also fabricated by GGI. These glass elements enhance functionality and elevate the dealership’s high-end appearance. ■

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A CELEBRATION OF ARTISTIC INGENUITY

St. Petersburg, Florida is renowned for its vibrant art scene, featuring over 600 street murals. GGI contributed to this artistic landscape by fabricating 32 custom glass panels for a new public art display for the SunRunner Bus Rapid Transit system. As part of a \$44 million project to enhance the city, nationally recognized artist Catherine Woods was commissioned to design 16 art installments to be placed in bus shelters across a 10-mile corridor, capturing the essence of the surrounding neighborhoods. **Having worked with GGI on past projects, Woods knew GGI could bring her visions to life with Alice® Direct to Glass Printing.**

SunRunner Bus Rapid Transit Stations

Artwork by
Catherine Woods

Commissioned by
Pinellas Suncoast
Transit Authority
and the City of
St. Petersburg, Florida

Photography courtesy of
Catherine Woods

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Anaha Tower in Oahu, Hawaii.
Photo by Deborah Gwinn



COLOR, DURABILITY AND DESIGN

HOW COIL AND EXTRUSION COATINGS ENHANCE ARCHITECTURAL AESTHETICS, PERFORMANCE AND COLOR VERSATILITY ACROSS THE BUILT ENVIRONMENT **BY TARA LUKASIK**

The choice of coatings for metal surfaces plays a crucial role in both the aesthetics and long-term performance of a structure. Sherwin-Williams, a global leader in coil and extrusion coatings, brings forward innovations that not only enhance the visual appeal of buildings but also ensure durability under extreme conditions. With architects, manufacturers and builders constantly striving to balance form and function, understanding the differences between coil and extrusion coatings is essential for selecting the right materials to meet project specifications, especially in fenestrations such as windows, doors and curtain walls.

Color selection is another critical factor in architectural design, as it influences the perception and impact of a structure. Sherwin-Williams' expertise in color matching and trend forecasting gives building professionals access to an almost limitless palette, allowing them to create spaces that resonate with contemporary design trends. Moreover, with the rise of innovative coatings offering special effects like pearlescence and color shifts, architects can push the boundaries of design, making their projects truly stand out.

Glass Magazine sat down with Jeff Alexander, vice president of sales at Sherwin-Williams, to discuss why industry professionals—aiming to ensure both visual appeal and long-lasting performance—should consider coatings technology innovations.

Glass Magazine: Let's start with a brief overview of Sherwin-Williams coil and extrusion coatings.

Jeff Alexander: As the leading manufacturer of coil metal coatings in the world, we bring a proud history of innovation to the coatings industry. With an enduring commitment to durability, superior customer service and an ever-expanding palette of color, our metal architectural coatings offer design and high performance to countless industries,

projects and locations around the world.

Specifying metal coil and extrusion coatings on the building envelope offers many other benefits such as durability, performance, and unique color and effect options. The biggest difference between coil and extrusion coatings is how and when they are applied. Coil coatings are applied to coiled sheets of metal before they are formed, while extrusion coatings are spray-applied after the aluminum extrusion has been formed. The most common application of extrusion coatings is for projects that have to do with the arrangement and design of fenestrations in the surface of buildings, such as windows and doors. These types of metal building products include storefronts, curtain wall, skylight framing and exterior sunshades.

GM: What is the importance of color and coatings selection?

JA: Color is a major consideration for those designing the built environment. A skyscraper, school complex, office building or residential structure is destined to be perceived by the public eye. Because of this, architects and product manufacturers often elevate their designs with colors and effects that evoke awe and emotion.

The color capabilities of Sherwin-Williams coil and extrusion coatings are nearly limitless. Our lines of Fluoropon® and Illumipon™ coil and extrusion metal coating systems let our customers explore new color spaces using a wide array of gloss, effects and print options. With over 50,000 colors offered, we can color match almost any look you dream up.

GM: What new color trends do you see in the demand for coil and extrusion coatings?

JA: We are continuously innovating and researching color trends, and then applying that expertise to explore how it affects architecture. This includes improved technologies and the use of

science to achieve lasting durability and color retention. Research also examines shifting consumer trends, such as the emerging use of color as a neutral, from soft blues to dark greens. Major trends we are seeing in the built environment are the transition to warm neutrals and the utilization of metal tones.

GM: How does color trend forecasting work?

JA: When it comes to trend forecasting, we serve architects and product manufacturers through architectural metal coatings color forecasts, which look more than three to five years in the future. Developed by a team of color experts, our metal coatings color forecasts are informed by major societal catalysts and backed by real-world data. Our research identifies how color is influenced by the world around us and supports strategic inspiration for the future of design. This creativity and expertise are what drives our recommendations.

GM: How do color effects impact a building's design?

JA: If you're looking to differentiate your building's appearance, applying a special-effects coating can offer a great opportunity for a building to stand out compared to others. Special-effects coatings are developed to provide textured, shimmering, pearlescent and color-shift appearances.

GM: What is the importance of durability and longevity in architectural metal coatings?

JA: The quality of our coatings allows you to coat your projects with confidence, knowing the colors will stand the test of time and offer exceptional design freedom. Exterior metal coatings from Sherwin-Williams are tested for durability, proving their capabilities to stand up to weather conditions and deliver powerful color retention. Our Fluoropon® and Illumipon™ coil and

extrusion coatings meet or exceed the rigorous AAMA 2605 standards.

Additionally, every product is subjected to the harshest testing environments and conditions to ensure our coatings and colors last for decades. The centerpiece of our exposure sites is a 6.25-acre test fence facility in Fort Myers, Florida. For more than 50 years, over 100,000 panels have faced the toughest conditions Mother Nature can dish out. Based on its subtropical location, this weathering site provides conditions that are perfect for natural exposure testing.

GM: What are the key considerations for architectural metal coatings in terms of aesthetics and performance?

JA: There are several factors that come into play when selecting the best coating for your project needs. Critical considerations include geographical location, color selection and the end-use application. The most important takeaway here is that you work with your coatings representative to ensure you're selecting the right system in the schematic design phase.

GM: What should customers know about specifying your coatings for their projects?

JA: Our color experts are ready to collaborate with your team to develop color schemes that will take your project to the next level. The Sherwin-Williams sales teams work closely with architects, manufacturers and end users to support all our customers' needs—from education, coating selection and color expertise—to ensure projects meet their vision and offer long-lasting performance. Sherwin-Williams is your resource for choosing the right coating and color inspiration for your projects. ■

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The National Glass Association welcomed more than 9,400 registrants to GlassBuild America, Sept. 30 – Oct. 2 in Dallas, the largest edition in 16 years. Attendees experienced a massive show floor at the Kay Bailey Hutchison Convention Center, where 535 exhibitors showcased their products and services, including 115 first-time exhibitors.

“We anticipated an event in Dallas that put renewed emphasis on the innovation and advancements of the glass, glazing and fenestration industries, as well as provided fresh solutions for the challenges at hand, particularly labor, and this year’s show more than delivered,” says Nicole Harris, NGA president and CEO. “Exhibitors and attendees alike came ready for the business-building and knowledge-gathering they rely on at GlassBuild, and it showed throughout the event.”

535

EXHIBITING COMPANIES

200,000

NET SQUARE FEET

57+

COUNTRIES REPRESENTED

EXHIBITOR AND ATTENDEE REACTIONS TO DALLAS

Exhibitors and attendees at GlassBuild expressed satisfaction with the move to a new host city, Dallas.

"We were thrilled to have 30% more guests at our booth this year compared to last," says Jakob Kowalczyk, customer experience director, Viprotron.

"Talk about an awesome GlassBuild trip," says Jose Rodriguez, business development design manager, Oldcastle BuildingEnvelope. "Got the team together to enjoy some in-person gatherings, great learnings, wonderful field trips, and all the fantastic face-to-face time that comes with it all! Thanks NGA and team for getting us all together."

"We have just opened our new facility in Houston, so this location is very good for glass fabricators," says Humberto Juliao of Interglass.

NGA FOCUSES ON HELPING THE INDUSTRY BUILD A NEXT-GEN WORKFORCE

NGA has made workforce development a primary initiative, and that commit-

ment was demonstrated in several ways at this year's GlassBuild.

STEM HIGH-SCHOOL STUDENTS LEARN ABOUT GLASS AND FENESTRATION

One of the major labor issues remains a lack of next-generation workers. Glaziers and glass industry workers are retiring, with not enough people to replace them. NGA is working to bridge that gap head on. As part of that initiative, this year's show welcomed 50 students from local Plano ISD Academy High School to learn about the glass and fenestration industries.

Students toured the show floor, learning about the industry and supply chain directly from industry professionals, accompanied by Jenni Chase, vice president of workforce development for NGA. "During a conversation with two high-school-age girls, they asked me what curtain wall means," she says. "I was able to answer their questions and show them examples on the show floor. The opportunity to engage with this age group in a setting that shows them firsthand the career opportunities available made such an impact on us and the students."

MAIN STAGE SPEAKERS EMPHASIZE IMPORTANCE OF MENTORSHIP, SAFETY AND COLLABORATION

Main Stage speakers also provided insights into how to keep next-generation talent, emphasizing the importance of mentorship and training.

In the Main Stage session "Building the World We Want to See: Building the Next Generation" Emily Pilloton-Lam, founder and executive director of the nonprofit Girls Garage, underlined the importance of tapping into the talents of young people, and helping them develop their skills. She spoke about her experience teaching high school in North Carolina, where she created a one-year program where students built structures to fill community needs, including a farmers market in an agricultural town. Students fully designed and researched the project and presented ideas to the town. "This project came together like a homework assignment," says Pilloton-Lam. "They were out every day, building the project together. It was incredible, everyone wanted to see this come to life."

Nicole Calhoun, a leadership consultant, shared similar insights during

9,400+ PARTICIPANTS

PARTICIPANTS FROM **49** STATES

115 NEW EXHIBITING COMPANIES

the third annual Women in Glass + Fenestration breakfast. The session is designed to offer insights and strategies for encouraging more women to enter, and stay, in the glass and fenestration industries. Calhoun says that mentorship is a key part of that, and is beneficial for both employer and employee. "Mentorship involves more than just giving advice," says Calhoun. "It requires fostering support and creating a constructive relationship. Connect with different people that can fill the role."

If the industry wants to recruit a diverse range of people and women, then the demographics of mentors also need to reflect that, says Calhoun. "Develop and promote inclusive mentorship programs," she says. To attract and retain women employees, "focus on specific things that impact women."

She also recommends providing development opportunities for employees. "Companies can offer resources such as training and leadership development programs for women, as well as career coaching."

Beyond mentorship, it's also important to ensure that work is a safe place, physically and mentally. Addressing the

importance of recognizing how mental health issues and addiction affect employees, Dave Argus of Karas & Karas Glass and Cal Beyer of SAFE Workplaces discussed recovery-safe workplaces at the GlassBuild Main Stage.

The session was joined by employees of Karas & Karas, Jared and Devon Hessek, who shared their successful experience with the company's program for helping people recover from addiction.

"These guys gave me a chance to do something with my life. I'm grateful for that every day. Programs like theirs break the stigma that is you make a couple of mistakes in your life, then you're done," Jared says. "They came to my celebrations, treated me with respect and gave me no special treatment."

TRAINING IS KEY TO RETAINING YOUR WORKFORCE, SAY EXPERTS

Industry leaders agreed that training is also key to retain and develop a labor pool. NGA programming offered several ways to train and develop a workforce.

During GlassBuild, NGA welcomed representatives from Architectural Glass & Metal Technician Glazier Certification to conduct glazier certification testing

during the show. Twenty-one experienced glaziers from several states and one from Canada came to test their skills on custom testing rigs to prove their knowledge of and ability to properly perform fundamental glazing procedures.

On the GlassBuild Main Stage, AGMT, director of program development Jeff Dalaba joined Jenni Chase, vice president, workforce development, NGA, to discuss the importance of creating an internal training program. They say that it's imperative to "train your trainers" and make sure they're qualified.

"The AGMT program has been industry-built specifically for glaziers and it's credentialed. It's knowing that your trainers have the right knowledge, skills and abilities to properly install glazing systems," says Dalaba. "Then we developed a rigorous testing program from that."

Training was a major topic of discussion during the Glazing Executives Forum as well. Stefanie Couch, founder of Grit Blueprint and GlassBuild show ambassador, argued that training is a major strategy for retention. "Ninety four percent of employees stay longer at companies that invest in their learning," she said.



On display in the Industry Pavilion, NGA spotlighted its MyGlassClass.com glazier training and MyGlassFAB fabricator training, with demos and personal discussions on course selection. During the show, NGA announced all MyGlassClass.com courses are now free to NGA members, further ensuring a well-trained, safe and committed workforce for the industry.

NGA brought its popular Blueprint for Collaboration program to GlassBuild for the first time. Architects, engineers, specifiers and consultants joined glaziers, fabricators and manufacturers for AIA-accredited education about the glass technologies available—and on the horizon—to fulfill high-performance building design requirements; specific ways to collaborate early on glass projects to meet expectations; and the codes developments impacting design.

FORECAST SAYS COMMERCIAL CONSTRUCTION IS “GROWING BUT SLOWING”

Connor Lokar, senior forecaster, ITR Economics, returned again to the Main Stage at GlassBuild to preview economic trends for the commercial market.

Lokar notes non-residential construction is growing but slowing, and he expects a softening of commercial market outcomes next year. He forecasts that the market is “about to go into the woods on the non-residential side.” Publicly funded projects such as health care and education may not see the pinch as soon or as much as privately funded projects. The market, however, should come back around in 2026-27, he says.

GLAZING EXECUTIVES FORUM SPOTLIGHTS RISK, FORECASTS, TECHNOLOGY AND MORE

The Glazing Executives Forum, now in its 18th year, drew more than 220 attendees on Sept. 30 for discussion of artificial intelligence, risk forecasting, estimating best practices and more. The event also included a meeting for the NGA’s Installing Committee and the return of economic forecaster, Connor Lokar of ITR Economics.

Additionally, for the first time, the Glazing Executives Forum offered workshop tracks that allowed attendees to split into smaller groups to meet and converse directly with experts in the field about specific industry topics. Tracks included: AI at Your Glazing Company, Shower Enclosures Solutions Share, and Effective Recruitment Strategies. ■

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RECAPTURING

DIVISION

10





Glaziers have missed out on Division 10 work for years. But understanding the market can position them to win back work. **BY JEFF PHILLIPS**

The Bottom Line

Changes to the tax code have benefited furniture manufacturers over glaziers in winning Division 10 work for the interior. But understanding how Division 10 is outlined in the Master Specifications document, the supply chain for Division 10 systems, and who is making building decisions in the industry, can allow glaziers to reinsert themselves in the bidding process.

S

ometimes the competitive temperature in the glass market seems to rise suddenly. The bad news is that it's not all that sudden. The market has been moving for years. The good news is that glaziers can move with it. Glaziers are well-positioned to leverage existing expertise and relationships to compete in a new way, but they must know how.

Over the last decade, glaziers have been gradually eliminated from interior glass installations because work that was traditionally specified as Division 8 is now being specified through Division 10. This change has tended to benefit furniture dealers over glaziers.

How Master Specifications shape the industry

Any construction project in the United States coming out of an architecture and design firm utilizes a Master Specification document that adheres to Construction Specification Institute guidelines. The Master Specification contains multiple divisions. Think of this as the “table of contents” for a project.

Electrical contractors will reference their division of the Master Specification when bidding on a project. The same is true for all trades working in construction, including glaziers.

Glass office fronts have three elements: aluminum frames, doors and door hardware, and glass. Here’s the catch—they can be specified as “components” in Division 8 or as “systems” in Division 10. Components and systems are not just two terms for the same thing. They are very different solutions, sold through different channels.

Glaziers need to understand the difference if they want to recapture market share.

THE DIFFERENCE BETWEEN DIVISION 8 AND 10: COMPONENTS VERSUS SYSTEMS

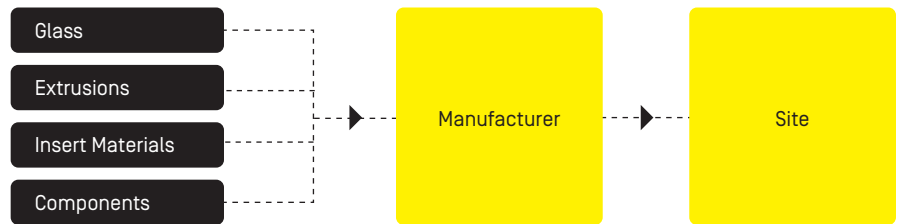
Division 8 is where glaziers have traditionally competed when installing glass for building interiors. Important distinguishing characteristics of this specification include:

- The component parts may or may not come from a single source. The solution is not considered a system.
- The components include primarily monolithic glass.
- The aluminum, hardware and glass are typically sold by a glazier and the work is managed through a general contractor.

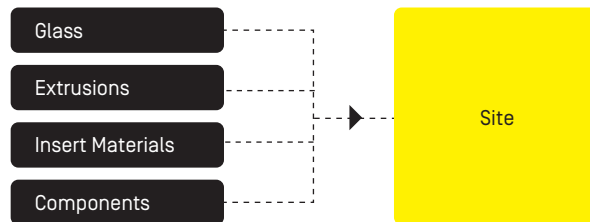
This is how things worked for many years.

But over the last few decades, office furniture manufacturers have become involved. They applied their systems knowledge, leveraged the tax code

Unitized Demountable Wall Manufacturing Process



Stick-Built Wall Manufacturing Process



and created a new entry for the Master Specification called Division 10.

Division 10 glass office fronts are called demountable walls. Division 10 is very different from Division 8. The most important distinction between the two is that Division 10 is sold as a system—either unitized or stick-built. The majority of demountable walls, whether unitized or stick-built, are sold through furniture dealers.

A unitized demountable wall system typically arrives on-site fully or partially assembled. It can be:

- **A UNITIZED FRAME.** The product is fabricated at a manufacturer’s facility with frame, glass and other materials assembled into a wall that ships whole.
- **A UNITIZED FRAME AND SKIN.** In this application, the frame is fabricated at a manufacturing facility and then the glass and doors are assembled on-site.

Given that it is either fully or partially assembled when it arrives, the unitized

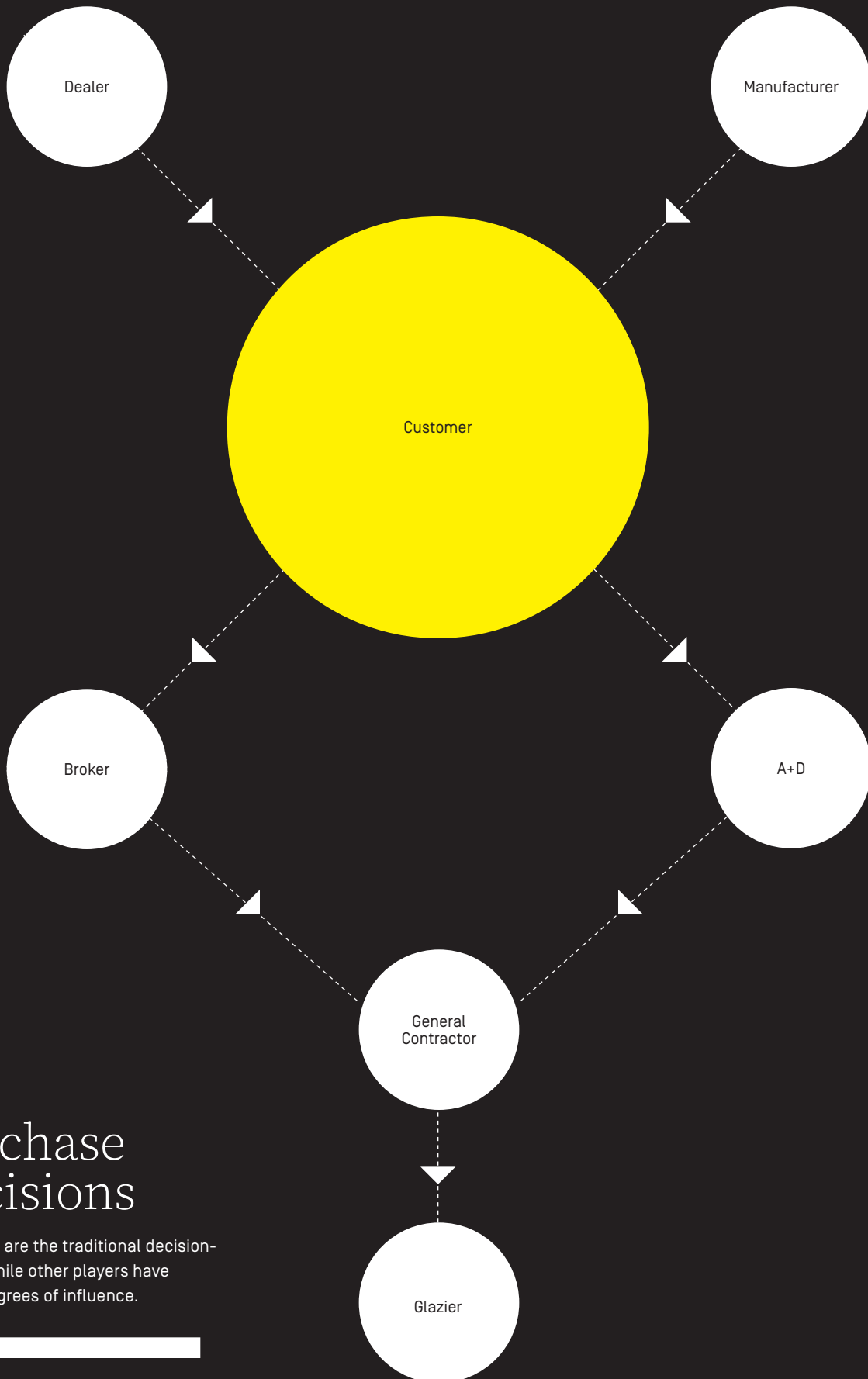
demountable wall is the easiest solution to install.

A stick-built demountable wall system arrives unassembled at the site. The aluminum, glass and/or other insert materials ship to the installation site or distributor separately, from different suppliers. A manufacturer might prefabricate parts of the installation (such as the extrusions) at their facility, a distributor’s location, or at the jobsite; then install the glass at the jobsite.

Tax rules and testing both affect specification of Division 8 components

The distinctions between Division 8 and 10 have real-world consequences in terms of which products are specified and who installs them.

Remember that Division 10 products are classified as systems and Division 8 products are not. Systems, including Division 10 products, can be tested for noise transmission (sound transmission class, or STC, rating) and documented as achieving certain levels of



Purchase Decisions

Customers are the traditional decision-makers, while other players have varying degrees of influence.



soundproofing. Division 8 components are not tested because they are sold as individual pieces.

From the architect’s perspective, this distinction is huge. If acoustic properties matter to the architect or end user, they’re going to specify glass office fronts in Division 10 because they can be chosen based on a documented level of sound reduction.

Additionally, when we move from components (Division 8) to a demountable wall system (Division 10), the tax rules also change. A demountable wall can be moved and used again, so it is considered personal property, like furniture, rather than a part of the building structure. Thus, it can be depreciated over seven years versus 39 years. Although depreciation is a non-cash expense, it does lower an end user’s taxable income.

Tax savings and STC ratings are two factors affecting why architects specify—and end users purchase—glass walls through Division 10. Since Division 10 systems are typically sold through office furniture dealers or direct to end users, glaziers are cut out right from the beginning. Ergo, the market has moved.

WHO MANUFACTURES DEMOUNTABLE WALLS?

As the market grows, competitors are flooding in with new product offerings. Those competitors can be grouped into four basic categories.

FURNITURE MANUFACTURERS typically source materials, fabricate either unitized or stick-built products, and sell primarily through their dealer network. They will occasionally sell direct to the end user on select projects. Furniture manufacturers leverage their national and regional furniture agreements to gain competitive advantage within an account. These agreement accounts represent the largest percentage of their revenue stream.

DEMOUNTABLE WALL SYSTEMS COMPANIES fabricate their own products and sell them. Larger manufacturers sell through a furniture dealer network. Smaller companies use limited dealer distribution as well as direct end-user sales.

HIGH-END SPECIALTY MANUFACTURERS for demountable walls are typically European in design, most often from It-

aly. Large architecture and design firms such as Genzler or HOK specify these products primarily for high-profile projects, and the products are usually sold direct to the end user.

COMPONENT COMPANIES sell hardware, framing and/or glass for stick-built solutions. They package components together to create a demountable wall product that is then sold as a system. These companies are both national and regional. Many of these companies source part of their product solution from other manufacturers. They will sell through glaziers, authorized distribution, or in some cases, direct to the end user.

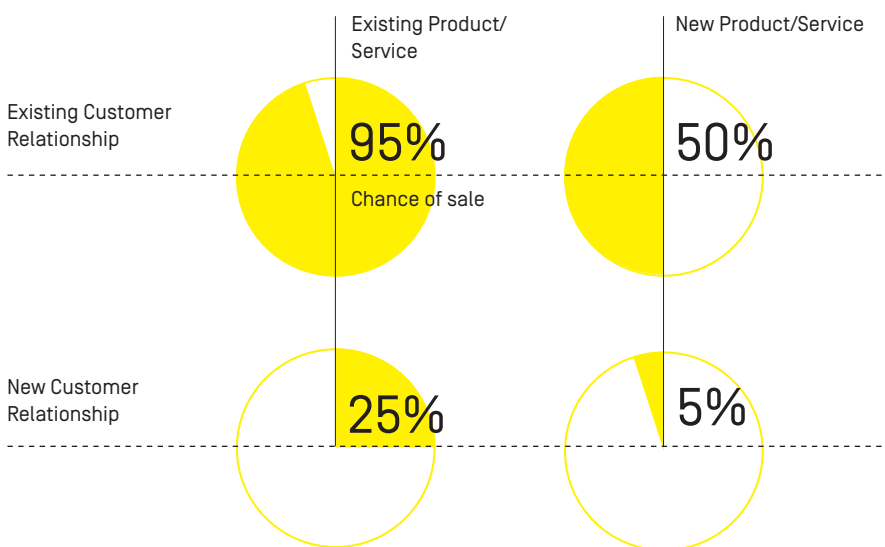
What features matter most?

In the broadest terms, demountable walls can be placed on a grid that is defined by price and aesthetics. Typically, a lower-priced product will have less design appeal, while a product focused on high design aesthetics will carry a higher cost.

There’s a large continuum from the lowest cost to highest design appeal. In point of fact, there are more than 44 competitors in the demountable walls market. They all offer a different set of features and benefits in addition to price and design. Here are a few of the additional qualities that glaziers should consider when looking at a demountable wall product.

- **ACOUSTICS.** Generally speaking, a system should offer both single- and double-glazed options so that the right level of privacy can be created for each space. An STC rating of 33 to 34 is optimal for single-glazed, 1/2-inch, clear tempered glass solutions, and 42 or greater is optimal for double-glazed installations (lite of glass/air cavity/lite of glass application).
- **LEAD TIME.** The demountable wall market has traditionally offered somewhat lengthy lead times. New competitors entering the market are designing processes to create a competitive advantage in this category. The sweet spot is three weeks or less.
- **SUPPLY CHAIN.** A product manufactured and shipped from outside of the U.S. faces increased risk of shipping delays. Some manufacturers now stock

Chances to Win Division 10 Business



The Pimms model describes how companies can leverage existing relationships with existing products. It’s understandably more difficult to sell new products, and to sell to new customers that do not have an existing relationship with the company.

NGA Seeks Input from Glaziers about Division 10

During the National Glass Association's Installing Committee meeting at GlassBuild America 2024, Division 10 took center stage. Per glaziers in the audience, more Division 10 interior work with glass has been moving to furniture contractors or to carpenters, rather than glaziers. During the meeting, association leaders asked the about 100 industry representatives in attendance for feedback on how the loss of Division 10 work is impacting their companies.

"Our space in this market has started to shrink. We'd like to have an open discussion about this to understand the issue and to discuss how can we take this market back," says Joey Aragon, NGA Installing Committee chair and director of

operations at Aragon Construction Inc.

The Installing Committee would like to form a task group to address Division 10. "We do need your voice. If you're able to have the great discussions, we're able to know how to advocate for you," says Urmilla Sowell, NGA's vice president, advocacy and technical services.

For more information and to get involved, contact Amber Johnson, NGA technical services and advocacy manager, at ajohnson@glass.org.

extrusions and hardware to minimize this risk. It's important to understand the complete supply chain when evaluating manufacturers.

- **SELF-LEVELING.** The vast majority of demountable walls are sold for building updates and retrofits. It's a pretty sure bet that walls and floors will not be perfectly square or plumb. A product with built-in leveling capabilities will make installation far easier.
- **UNIVERSAL HARDWARE.** A relatively simple glass wall can take on fresh aesthetics with the right hardware. The ability to accept hardware from most major manufacturers extends the design aesthetic of a product.
- **SPECIFICATION AND QUOTING.** Having a simple and reliable tool for specifying and quoting a project can eliminate errors and provide timely quotes.
- **COMMUNICATION.** This is perhaps the most overlooked aspect of the demountable wall installation process, and yet one of the most critical. Real-time updates on manufacturing and shipping are essential for coordinating on-time installation.



Read Jeff Phillips' full three-part blog series on Division 10 and watch a recording of his NGA Thirsty Thursday webinar on the topic.

WHAT PRODUCT SHOULD A GLAZIER CONSIDER?

Component companies represent a very good opportunity for glaziers. Since their product is sold as a stick-built system, they rely on installer expertise to create an excellent end-user outcome. Again, a glazier with a trained sales team and qualified installation team could find a good fit here.

Demountable wall systems companies do sell through distribution agreements. Although they often target furniture dealers, they would be more open to a conversation with a glazier because the glazier's skill set fits their full product line. A glazier could definitely appeal to one of these companies if they had a sales team and could demonstrate excellent installation capabilities.

Additional Division 10 opportunities

High-end specialty manufacturers are going to be specified by architecture and design firms. Since the products are usually sold direct to the end user, a glazier's only option is to be a preferred installer. This does represent a potential opportunity if the glazier can build excellent relationships with the architecture and design community as well as with general contractors. However, there will be no opportunity for the glazier to earn revenue from product sales.

Furniture manufacturers typically require a dealer to sign a distribution agreement, committing to an annual volume in a specific territory. They also want the distributor to sell their full line of products. It is highly unlikely that a glazier could be appointed as an

authorized dealer for a furniture manufacturer such as Steelcase, Herman Miller, Haworth, etc.

Who is involved in the decision to buy demountable walls?

Demountable walls are typically just one component of a comprehensive design and furniture purchase process. A lot of influencers surround these purchases.

Customers are traditionally the decision makers. Other players have varying degrees of influence. Furniture dealers, manufacturers and independent sales rep firms exert considerable influence due to regional/national sales agreements and proactive sales methods. The customer/end user typically relies on an architecture and design firm and/or a real estate broker to choose a building location. Then, the architecture and design firm and dealer are usually the biggest influencers of product selection and design.

All projects follow a similar project

path, which starts with planning and ends with construction. Architecture and design firms have the most impact, given they are involved with the entire process. The distributor carries the second highest level of impact on demountable wall selection, given they are typically involved throughout the project from planning through installation.

By the time a bid is issued, it's too late to significantly influence the sale. A glazier who wants to sell and install demountable walls in Division 10 must build proactive relationships rather than rely on reactive bid responses to general contractors.

The glazier's challenge is to move from the bid portion of the sales process to at least the design development portion. Essentially, the glazier must replace the dealer/distributor for the demountable walls portion of the project.

What does a glazier have to do differently to win Division 10 business?

Here's the key thing: relationships with

A&D firms, building owners and general contractors drive opportunities and success in Division 10.

Here are some good steps to take to understand this model more clearly.

- Make a list of all recent projects.
- Identify the decision-making and/or key influencer relationships for those projects. Who chose to work with you? Was it the general contractor? The architecture and design firm? The end user or building owner?
- Why was the project successful?

Now, look at the list again. Where are your strongest, most consistent relationships? As shown above, the best chance of breaking into the Division 10 demountable wall market will come from leveraging existing relationships. It will take time and effort, but the relationship will open the door to future opportunities.

- Here's what needs to happen next.
- UNDERSTAND WHAT MOTIVATES YOUR BEST RELATIONSHIPS. What matters

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to end users? To architecture and design firms? To general contractors? A glazier must understand the priorities. The architecture and design firm is most concerned about aesthetics and product performance, as well as the ability of a supplier to deliver as promised and protect their reputation. The general contractor, however, is most concerned about on-time, complete installation and great communication. Each role is different, and their definition of success can vary widely.

– **DEFINE A VALUE PROPOSITION.** A glazier must be able to articulate a compelling reason why the traditional, entrenched model should be changed. That starts with understanding needs, and then learning to position a solution that neutralizes other competitors out of the demountable wall portion of the project.

– **Hint #1:** Having in-house, trained installers who are certified on the product is a big part of the story.

Many competitors, typically a non-glazier, outsource installation resources to do the work. That means they don't have complete control over the outcome.

– **Hint #2:** Division 10 distributors typically set higher profit margins on demountable walls to help offset their lower-margin product lines and the cost of outsourced resources. Offering an attractive and price-competitive product will give your key influencer contacts a reason to bring you and your solution to the table.

– **CHOOSE A PRODUCT LINE THAT SUPPORTS YOUR VALUE PROPOSITION.** Use insights from this article to start narrowing down the options. Make sure that the product solution supports the value proposition and addresses the most important needs of your key relationships.

– **STRENGTHEN AND BUILD RELATIONSHIPS.** Glaziers need to build deep strategic partnerships with architecture and

design firms, developers, and corporate facility managers to support their needs and processes. Sales professionals who understand the market can do this work the best. Hiring someone with existing relationships will jump-start your success.

– **PROVE YOURSELF.** Go all out to win a few small jobs and demonstrate that you can fulfill all the expectations of your key relationship holder. Actions, as usual, will speak louder than words. There will be some painful learning, but it's better to have that happen on small jobs than large ones. ■



Jeff Phillips' career spans more than 30 years of extensive experience and success built on strategic

planning, business leadership, sales and distribution leadership, and business development, primarily in the office furniture industry. He can be reached at jeff@phillipscg.com.

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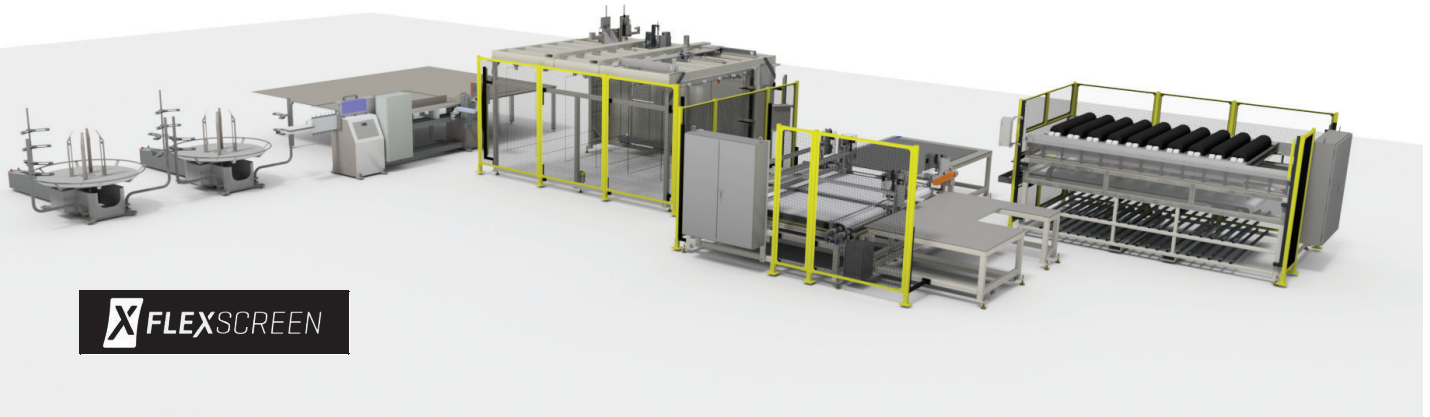
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FlexScreen appeared on U.S. business reality television series Shark Tank in 2020, winning a deal with inventor and entrepreneur Lori Greiner. "FlexScreen is one of the most innovative household products we've seen on Shark Tank," says Greiner on the FlexScreen automated window screen line and FlexScreen/Erdman partnership. "Licensing the manufacturing technology was the next logical step in making FlexScreen the industry standard. I'm excited to be a part of history in the making and proud to partner with Joe and his amazing team."

For more information, visit erdmanautomation.com, 763/389-9475, and flexscreen.com, 888/983-3539. ■

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01



02



03

01. Glass-handling device

The pillar-guided handling devices of the Isofix Series by Hegla feature a torsion-resistant aluminum column that ensures a high level of motion stability, load guidance and positioning accuracy. The Isofix devices feature a wide range of functions, such as lifting, tilting, inclining and rotating. The press of a button is all it takes to reliably generate the vacuum required to lift the glass so it can be safely moved or held in position.

404/763-9700 | HEGLA.COM

02. Glazing robot

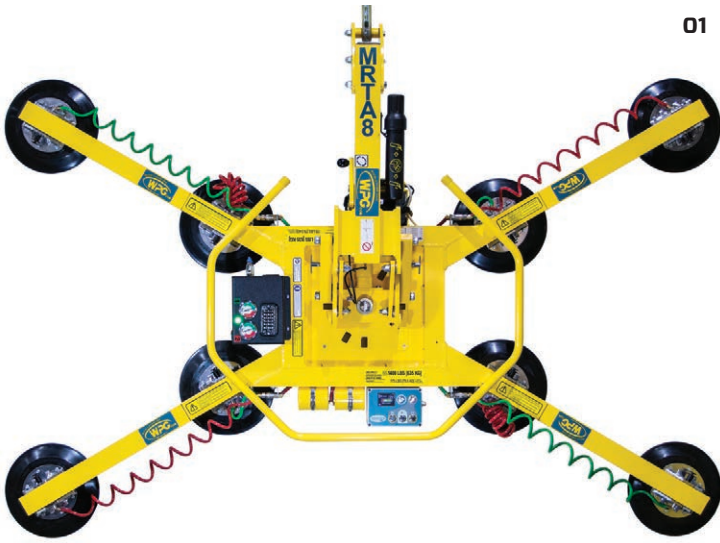
The Vector line of glass-handling equipment by Quattrolifts includes the Vector 1320 XR, Vector 1320 MP, Vector 1800 XR RD and Vector 1800 Crawler. All four of these glazing robots help glass and glazing companies meet the demand of installing heavier and larger lites of glass, as customers require heavier and larger units of glass for their projects.

301/748-7127 | QUATTROLIFTS.COM

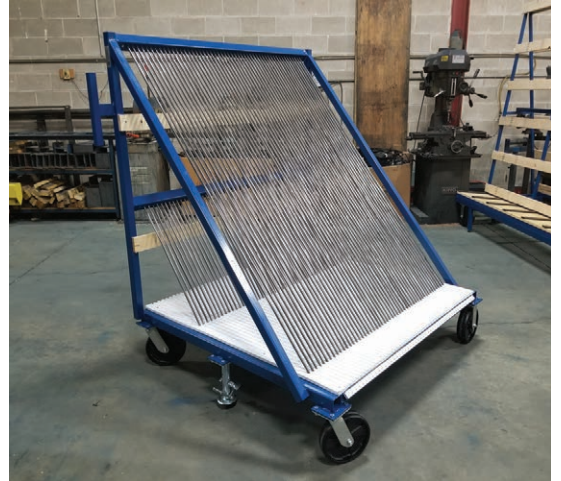
03. Grille guards

Ex-Guard provides heavy-duty front-end protection for commercial vans that carry high-value heavy products like glass. These grille guards can reduce the chance of being towed by 80% following an animal hit or vehicle collision and protect the van and driver from expensive damage and costly downtime.

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01



03

01. Vacuum lifter

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02. Harp rack

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888/651-0001 | GLASSROLLFAB.COM

03. Glass truck body

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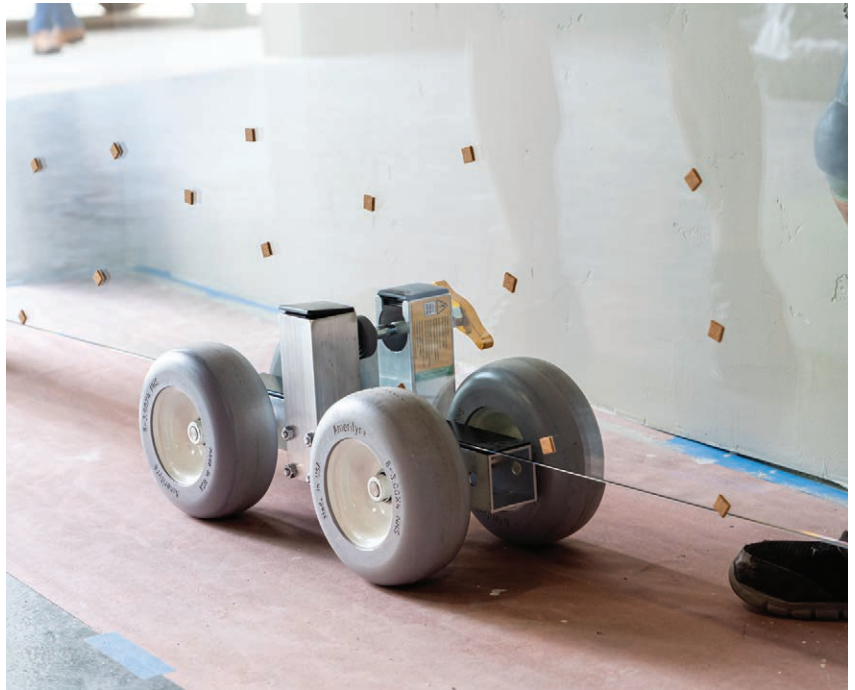


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Glass manipulator

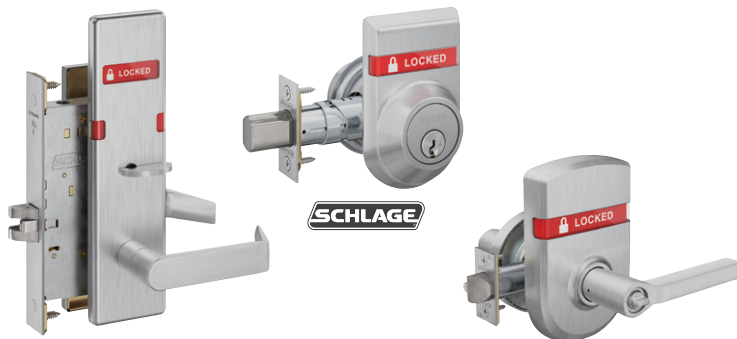
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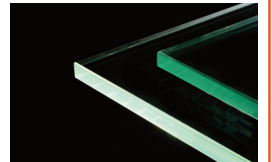
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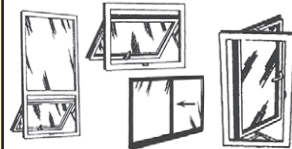
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ATTENTION JOB SEEKERS

Use the Glass Magazine Employment Center to Help Find Your Next Job in the Architectural Glass Industry

The screenshot shows the Glass Magazine Employment Center website. At the top, there are navigation tabs for 'Job Seeker' and 'Employer'. Below this is a header with 'HOME', 'JOBS', 'YOUR PROFILE', and 'RESOURCES'. On the right, there are links for 'Help' and 'Sign In'. The main content area features a large banner with the text 'FIND YOUR NEXT JOB' and a search bar with 'Keywords' and 'Location' (set to 'Search All Locations') fields, and a 'Search Jobs' button. Below the banner is an 'Advanced Search' link. To the right of the banner is a section titled 'Glass Magazine Employment Center Account Benefits' with a paragraph of text and three buttons: 'Post Your Resume', 'Apply For Jobs', and 'Get Job Alerts'. Below this is a 'FEATURED JOBS' section with a button 'Explore All Jobs' and a job listing for 'Project Manager' at 'Alexander Metals Inc.' in 'Nashville, Tennessee'. The 'NEWEST JOBS' section shows two job listings: 'Maintenance Technician' at 'Manko Window Systems' in 'Manhattan, Kansas' and 'Project Manager' at 'Alexander Metals Inc.' in 'Nashville, Tennessee'. A smaller version of the search bar is also visible in the bottom right of the screenshot.

Visit jobs.glassmagazine.com to learn more!

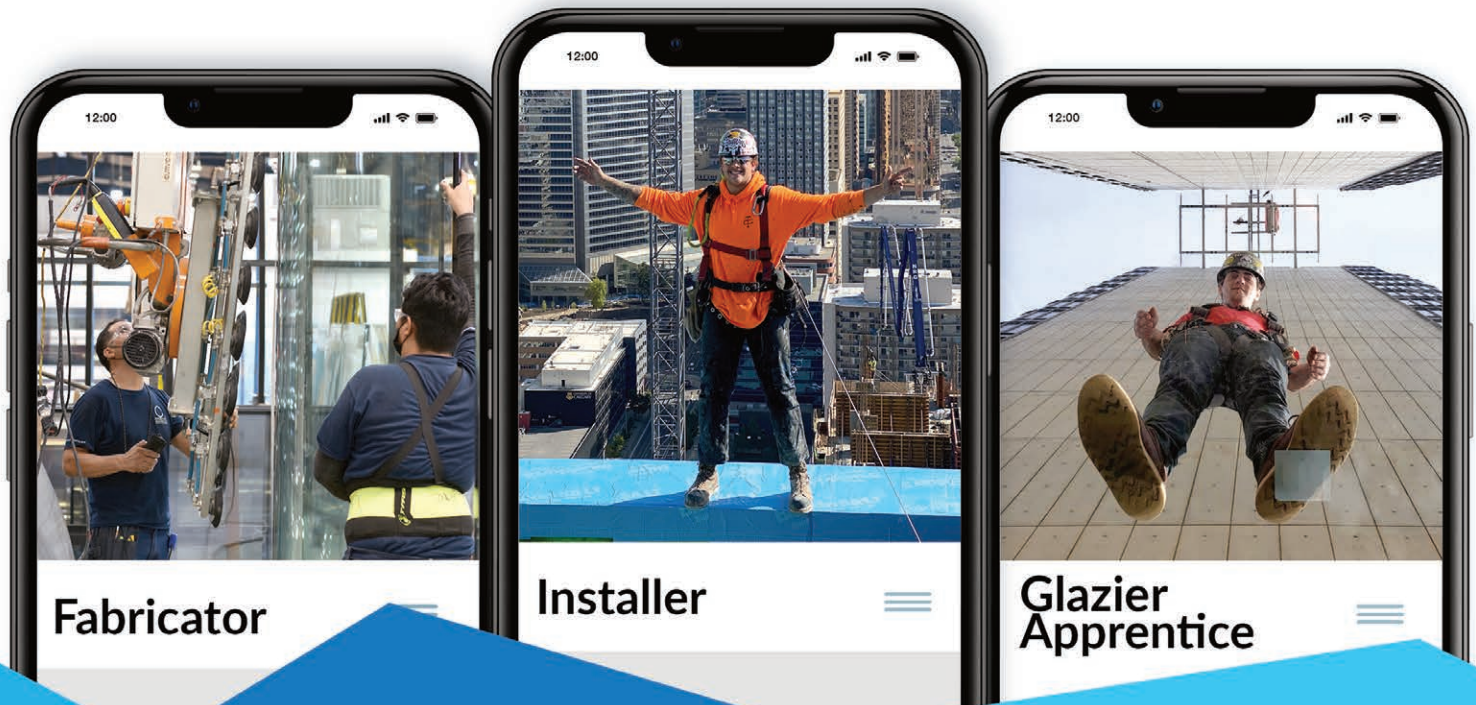
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DEMOUNTABLE PARTITIONS AND THE MYTH OF FLEXIBILITY

BY STEVEN ALBERT

In the realm of interior design and architecture, the term “flexibility” often carries significant weight. Demountable partitions have gained popularity, touted as a flexible solution and ideal for spaces requiring frequent changes. However, it’s time to peel back the layers and examine whether this perception holds true in the real world, or if it’s just a notion in the name.

One common claim associated with demountable partitions is their flexibility, particularly in terms of reconfiguration. Advocates argue that these partitions are ideal for spaces that frequently need to adapt to changing requirements. However, a closer look reveals that this flexibility might not be as practical as it seems.

- **Higher cost of flexibility.** While it’s true that demountable partitions can be reconfigured, this flexibility often comes at a considerably higher cost. The modular nature of demountable

partitions requires specialized components and design, making them more expensive than traditional glazing methods.

- **Complex reconfiguration process.** Reconfiguring demountable partitions is not as straightforward as it might appear. It involves disassembling and reassembling modular components, which can be time-consuming and may require skilled labor. This complexity can hinder the efficiency of the reconfiguration process.
- **A less flexible reality.** In practice, the perceived flexibility of demountable partitions can be more restrictive than liberating. The higher costs and labor-intensive nature of reconfiguration can discourage frequent changes. Unless the specific system is reused during reconfigurations (which is rarely the case), demountable partitions can actually add costs and make it harder to adapt spaces efficiently.

Traditional glazing: A flexible alternative

Traditional glazing methods, such as glass partitions, may not have the term “demountable” in their name, but they offer a different kind of flexibility that is often more practical in real-world scenarios.

- **Ease of maintenance.** Traditional glazing is easy to maintain, with minimal disruption to the workspace. Adjustments and changes can be made efficiently without the need for extensive reconfiguration.
- **Cost-effectiveness.** Conventional glazing methods are often more cost-effective than demountable partitions, making them a budget-friendly choice for projects where adaptability is required without breaking the bank.
- **Timeless aesthetic.** Traditional glazing provides a timeless aesthetic that complements various design styles, ensuring that your space remains visually appealing, regardless of changes or reconfigurations.

While demountable partitions may appear to be the epitome of flexibility on the surface, the reality can be quite different. The higher cost, complexity of reconfiguration and potential limitations make them a less practical choice in many real-world scenarios.

Traditional glazing, with its cost-effectiveness, ease of maintenance and timeless appeal, offers a flexible alternative that architects and designers should consider when seeking adaptability in interior spaces. In the end, true flexibility lies not just in the name but in the practicality of the solution for the specific needs of each project, without adding unnecessary costs or complexity. ■

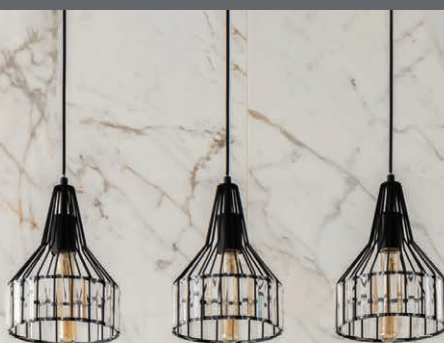


Steven Albert is a fourth-generation glazier at family-owned S. Albert Glass, and is the creator of GlaziersTool, a web app that streamlines project management for glaziers.

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