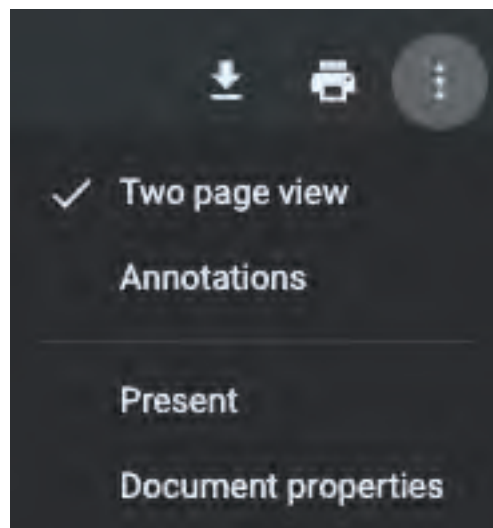


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The GlassBuild America Issue

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Let's Destigmatize Mental Health

Construction and manufacturing have solid plans for physical health and safety. Now it's time to get serious about mental health. **BY LAURIE COWIN**



The construction industry continues to prioritize physical safety through personal protective equipment, fall protection equipment, safety procedures and more. Important though physical safety is, mental safety must be just as prominent on a company's priority list.

The state of mental health in the United States continues to decline. An estimated 26% of Americans have a diagnosable mental health disorder in a given year, according to Johns Hopkins Medicine. In June 2020, the Centers for Disease Control and Prevention estimated 40% of U.S. adults reported struggling with mental health or substance abuse. About 47,500 people die each year by suicide.

The picture of the construction industry is even bleaker. An estimated 83% of construction workers experienced a mental health issue in 2020—more than twice the national average. The industry has one of the highest rates of suicide at 53.3 per 100,000 U.S. workers—four times greater than the national average and five times greater than all other construction fatalities combined.

Substance abuse also contributes to the mental health crisis in the population at large and in construction in particular. American Addiction Centers estimates 15% of construction workers have a substance use disorder compared to 8.6% of the general population. Opioid use is especially disproportionate; 1.3% of construction workers have an opioid use disorder—nearly twice the national average, according to the National Safety Council. The physical nature of construction and higher likelihood for musculoskeletal injury often serves as a catalyst for substance use, opioids in particular.

And it's a vicious cycle. Substance abuse can lead to sloppier job performance, which increases the risk of injuries, which can lead to substance abuse. Substance abuse is also linked to higher suicide rates. Further, construction is a male-dominated industry. Societal norms and expectations of masculinity often lead males to underreport mental health concerns; they are therefore undertreated.

Once considered a taboo topic to discuss, the time to talk about and destigmatize mental health awareness is now. The industry must continue to have conversations about this topic.

Be sure to check out the Main Stage session at this year's GlassBuild America about Building a Recovery-Safe Culture, which will arm participants with tools to promote and implement a recovery-safe workplace. ■

WINDOW+DOOR

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344 Maple Ave. West, Unit 272
Vienna, VA 22180
P: 703/442-4890

Editorial

Katy Devlin // Content Director
Laurie Cowin // Editor
Tara Lukasik // Managing Editor
Norah Dick // Senior Editor
Rachel Vitello // Assistant Editor & Researcher
Cory Thacker // Creative Lead
Bethany Stough // Assoc. Director, Communications & Digital Media
Wendy Vardaman // Digital Media Coordinator
Beth Moorman // Production Director
Jo Ann Binz // Circulation Manager

Advertising

Emily Kay Thompson // Publisher // ethompson@glass.org
703/442-4890 ext. 150
Chris Hodges // Senior Sales Consultant // chodges@glass.org
703/442-4890 ext. 131 // Cell: 410/459-8619
Holly Robinson // Senior Sales Consultant // hrobinson@glass.org
703/988-3164
Tristan Scofield // Sales Consultant // tscofield@glass.org
703/442-4890 ext. 194
Cameron Francis // Media Sales & Sponsorship Manager // cfrancis@glass.org // 703/442-4890 ext. 132

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Quanex Building Products' Acquisition of Tyman Approved

Quanex Building Products Corp. announced that shareholders of both Quanex and Tyman have approved Quanex's proposed acquisition of Tyman, parent company of AmesburyTruth.

"We continue to prepare internally for the upcoming integration of our two companies and we look forward to working alongside our talented colleagues at Tyman following the close of the transaction," says George Wilson, chairman, president and CEO of Quanex.

The acquisition is expected to close in August.

Fenzi Group Acquires Thermoseal

Fenzi Group SpA, a Milan-based chemical company specializing in glass processing solutions, acquired Thermoseal. Thermoseal's product portfolio aims to enable Fenzi Group to expand Thermoflex and Thermobar sales internationally.

"We are delighted to work with the Fenzi team in the next phase of our company's growth," says Gwain Paterson, managing director, Thermoseal.

Paterson will remain as managing director and board member of Thermoseal following the transaction.

Fenplast Acquires Les Portes ARD

Fenplast announced the acquisition, through its subsidiary Lajeunesse Windows and Doors, of Les Portes ARD Inc., a door manufacturer for over 40 years.

The acquisition of Les Portes ARD in Lachute, Quebec, Canada, aims to allow Lajeunesse to expand its product range and to integrate a valuable

network of clients, complementing its existing market. Although the current leaders are leaving the company, the administrative structure and all staff will remain in place to maintain operational continuity and meet new challenges.

Stately Doors & Windows Acquires Reilly Architectural

Stately Doors & Windows announced the acquisition of Reilly Architectural, part of Pella Corp.'s Luxury Division. As a result of the acquisition, Stately anticipates \$100 million in annual revenue, with employees spread across nine locations in six states. Stately, under the leadership of its founders, Executive Chairman Jude David and CEO Erik Billet, provides custom luxury wood, steel and iron doors and windows.

Reilly employees and leadership will remain at their 125,000-square-foot location in Calverton, New York, under the direction of the management team, which have served the company for decades.

Liteworks Window & Door Acquires Southern Components

Atlanta-based Liteworks Window & Door, a portfolio company of The Macallan Group, announced the acquisition of Southern Components Inc., a distributor of windows and doors in Charleston, South Carolina; St. Simons, Georgia; and Northeast Florida. This acquisition aims to enhance Liteworks Window and Doors' market presence while broadening its product portfolio and accelerating its growth in the residential and commercial construction industries.

Remodeling Spending to Tick Up though Mid-Year 2025

After a modest downturn, homeowner expenditures for improvements and repairs are expected to trend up through the first half of 2025, according to the latest Leading Indicator of Remodeling Activity. The benchmark update projects that a decline in annual spending for renovations and maintenance to owner-occupied homes will ease to -0.5% through the second quarter of 2025.

Economic uncertainty and continued weakness in home sales and the sale of building materials are keeping a lid on residential remodeling, although many drivers of spending are starting to firm up again. After several years of frenzied activity during the pandemic, owners are now making upgrades and repairs to their homes at a steadier and more sustainable pace.

Annual spending on homeowner improvements and maintenance is expected to reach \$466 billion through the second quarter of next year, on par with spending over the past four quarters. The home remodeling slowdown should continue to be relatively mild, with activity stabilizing just shy of last year's peaks.

Addressing America's Housing Affordability Crisis

According to a survey conducted on behalf of the National Association of Home Builders, nearly four out of five Americans agree that the country is in the midst of a housing affordability crisis and that officials at all levels of government are not doing enough to address the issue.

NAHB Chairman Carl Harris emphasizes that the survey is a

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sobering reminder of the public's call for policymakers to act. "Americans are calling on policymakers to ease burdensome regulations, roll back inefficient zoning rules, and provide builders and developers with the proper business climate so that they can construct more homes and apartments to provide our citizens with better homeownership and rental housing opportunities," he says.

ProVia to Purchase Ohio Real Estate

ProVia announced its intent to purchase two real estate properties in Dalton, Ohio, from Toop and Toop II LLC. The main building is approximately 303,000 square feet of retail and manufacturing space, located on 24.5 acres, and has high visibility from U.S. Route 30. The other four-acre property is 1.3 miles away and contains a 22,500-square-foot warehouse.

ProVia plans to use these properties for manufacturing as part of ongoing facility-expansion efforts. The main building will be renovated as necessary to prepare for future production needs.

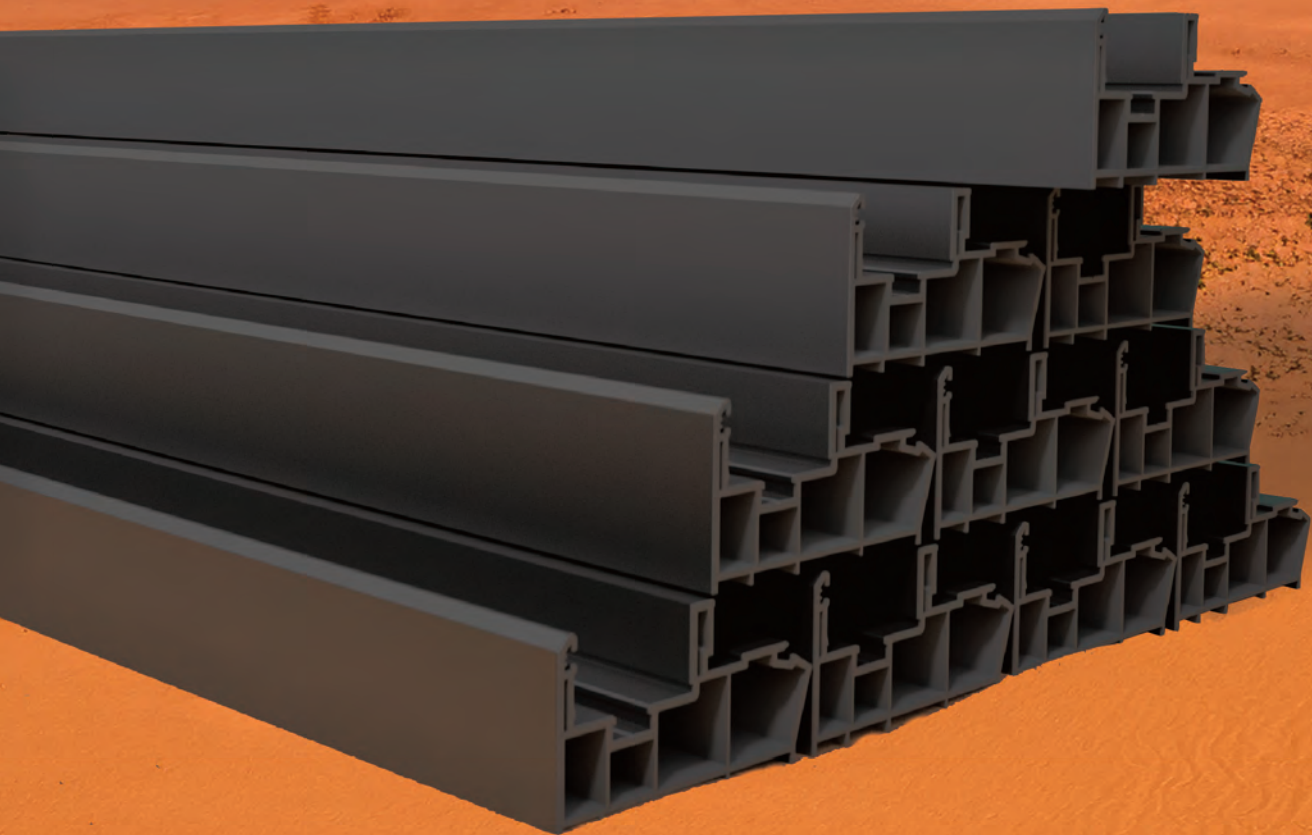
Mastergrain Acquires Fibercraft Door Co.

Mastergrain, a manufacturer of fiberglass exterior doors and components in North America, acquired Hanover, Ontario-based Fibercraft Door Co. This acquisition supports Mastergrain's objective to lead the premium and luxury fiberglass door segment by integrating Fibercraft's craftsmanship and innovative products.

Chelsea Building Products Expands Lamination Capacity

Chelsea Building Products expanded its lamination capacity to Chelsea Building Products South in Greenville, Texas, to provide laminated products for its customers in the region.

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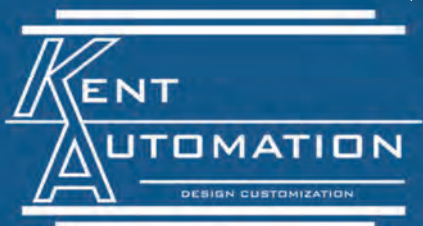
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Chelsea Building Products' lamination program provides fabricators with a variety of color options. Lamination options consist of interior and exterior color and finish choices.

This expansion is in addition to the existing lamination program at Chelsea Building Products in Pennsylvania.

People



Smith

Crystal Window & Door Systems named

Jeffrey Smith as its new CEO. He will lead the company with Chairman Thomas Chen and

President Steve Chen. Smith has held top leadership roles as president and CEO of Trussway Manufacturing of Houston, Texas; High Industries of Lancaster, Pennsylvania; and most recently, as senior vice president of multifamily components for Builders FirstSource Inc. of Dallas, Texas.



Stoddard

Jeld-Wen Holding Inc. announced that

Samantha Stoddard has succeeded Julie Albrecht as the new executive vice president

and chief financial officer of the company. Previously, Stoddard was Jeld-Wen North America's CFO and head of global financial planning and analysis. Stoddard joined Jeld-Wen in 2020 as vice president of finance for North American operations.



Dillen

Pro-Line Automation Systems Ltd. added

Ellis Dillen to the Pro-Line management staff as vice president and chief operations officer.

Starting in the industry in 1987 as a machine builder on the shop floor, Dillen quickly moved through the ranks, holding leadership positions in service, sales, and eventually as president and CEO of a well-known supplier of machinery from Europe. ■



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Progress Never Stops for Window Manufacturers

Success in today's window and door space requires striking the right balance between efficiency, performance and consumer preference

BY ERIC THOMPSON



THE BOTTOM LINE: Window and door manufacturers must continuously innovate and balance industry trends and new technologies to meet evolving performance standards and succeed in a competitive market.

The slow march of progress never stops when it comes to energy efficiency demands for window and door manufacturers.

Energy Star 7.0, which is approaching its one-year anniversary, is just one example. Government bodies around the world, from the local level to the national stage, are more concerned than ever with fostering greater sustainability in all areas of society. We've seen the effects throughout North America, Europe and beyond, as new building codes in major municipalities demand higher levels of performance from all types of buildings.

It's easy to imagine that several years from now our industry will find itself in a scenario where the Energy Star 7.0 criteria are simply table stakes. Success will involve making investments in forward-thinking technology that can deliver on increasingly lofty expectations.

Of course, that's not the only thing window and door makers have to worry about. Success in our industry requires striking a careful balance between performance demands and several other criteria. As we head

into tradeshow season—a prime opportunity for industry stakeholders to explore new technologies and new ways to do business—here are a few things to consider.

Balancing performance with trending demands

Energy performance isn't the only moving target that window and door manufacturers need to hit. Consumer preferences are always changing, and they're continually bringing our industry in new directions.

For example, this magazine noted in its recent survey of the window market that tilt and turn windows—common in Europe—are gaining significant traction in the U.S. market, particularly on the East Coast. Part of this traction is, indeed, due to energy efficiency. All things being equal, tilt and turns' compression sealing and multipoint locking make them inherently more efficient than, say, double-hung windows.

Window and door makers can and should approach tilt and turn profiles with a careful eye, though. European

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climates aren't as demanding as those in North America, and it's important your windows can stand up to domestic weathering demands. When in doubt, when vetting profiles be sure profile options meet the appropriate AAMA standards for weatherization and performance.

Thin triples' potential

Evaluating cutting-edge insulating glass technology is essential when working to meet higher energy standards. To those ends, you've probably heard about thin or skinny triples.

Thin triples—triple-paned IG units that utilize an ultrathin center lite—exist in a weird space in the window and door market. In theory, skinny triples represent an effective way to hit new efficiency targets. In 2024, they're on the table as a way for residential window and door manufacturers to meet recently minted Energy Star 7.0 figures. But despite the performance advantages, they simply haven't achieved any kind of meaningful market penetration.

Hitting 7.0 numbers today has predominantly involved the use of traditional triple-paned units, or else a complete redesign of a 6.0 system that relied on double-paned. Neither of these options are exactly convenient for manufacturers. Fabricating triples involves significantly more raw materials in the form of an extra pane of glass and additional spacer to seal two argon chambers. Meanwhile, the resulting systems are heavier and deeper, raising some additional considerations when it comes to installation.

And now that the rubber is meeting the road when it comes to delivering Energy Star 7.0, I've heard some newer rumblings about thin triples. And there's good reason for it. Thin triples can drop into the same sash as a conventional double-paned IG unit, enabling manufacturers to utilize their existing systems to meet new requirements. There are some manufacturing processes that need to be ironed out, but that can be done by working with the right partners. For window and door manufacturers, it's worth staying open-minded.

More than glass

As noted, it's important to consider your window profiles in meeting higher performance standards. A basic vinyl framing system combined with a high-performing triple IG (or indeed, a thin triple) may get you to the required performance criteria, but it's possible you may need to incorporate additional elements to hit the new targets. Foam filling could help bridge the gap—but that's an extra step in your manufacturing process that may add some unnecessary complexity.

Instead, consider choosing a higher-performing vinyl system designed for elevated thermal performance. Off-the-shelf options that come pre-foam-filled, or with cavities small enough to rule out the need for foam at all, may be able to help you achieve the necessary performance targets in a simpler way. Changing your framing system does come with some complexity, and there can be a learning curve to getting a new framing system online and working with it effectively, but it represents an investment in your business' future that may pay dividends down the road.

Elsewhere, the right profiles can help you stay on trend. High-performance color technologies, like co-extrusion, can better enable you to deliver in-demand black windows and doors without the extra step of painting or laminating. The same profile from the right supplier may offer sound control properties, another attractive feature particularly in busy urban areas.

So, how are you approaching energy efficiency in 2024 and beyond? How are you gauging shifts in customers' demands? And how are you going to deliver? GlassBuild is right around the corner—and I'm looking forward to discussing all of these things with customers, partners and stakeholders. See you at the show! ■

Eric Thompson is national account manager for Quanex.



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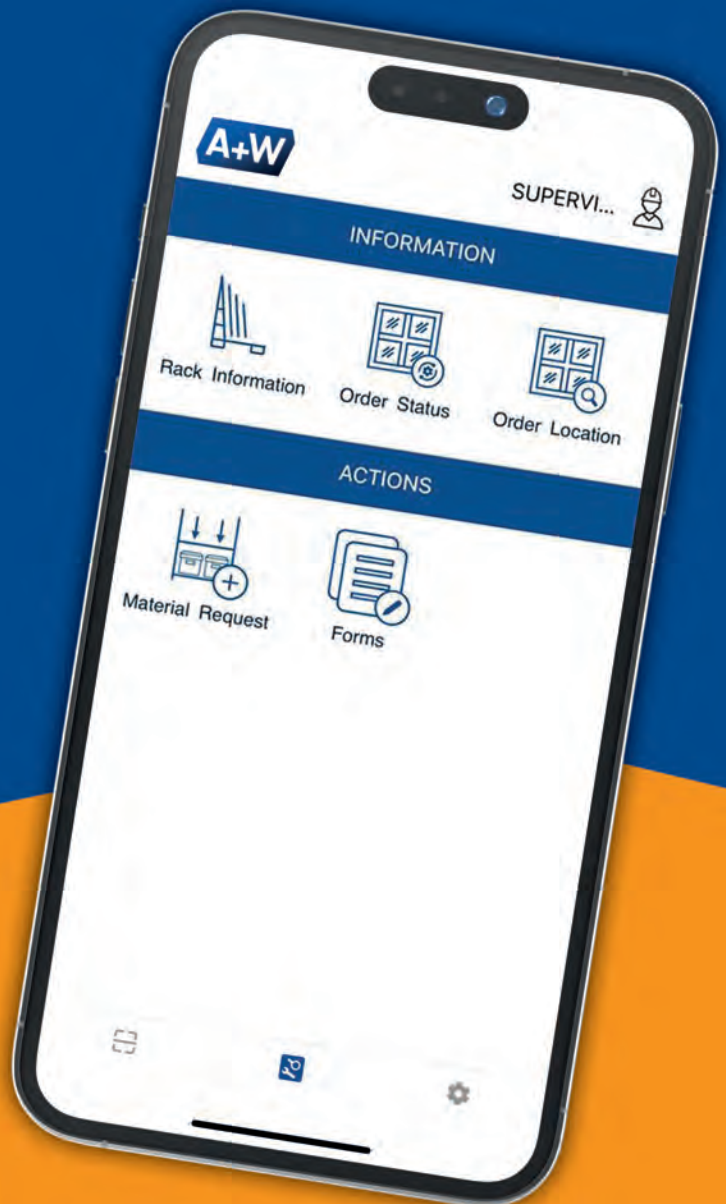
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Guide to the Updated ASTM E1300-24

The standard continues to play a critical role in determining glass thickness and type required to meet specified loads in building design

BY KAREN WEGERT



THE BOTTOM LINE: Significant technical changes include new material properties, corrections to analytical procedures, a glass bite pullout method, expanded maximum allowable stress procedures and a revised effective thickness example.

Design professionals use ASTM E1300 Standard Practice for Determining Load Resistance of Glass in Buildings to determine the glass thickness and type required to meet specified loads. The standard gives procedures to determine the uniform lateral loads perpendicular to the glass surface for monolithic, laminated and insulating glass. Charts are given for maximum lateral glass deflection.

ASTM E1300 is directly referenced in Chapter 24 of the International Building Code and indirectly referenced in Section R609 of the International Residential Code for design wind loads for exterior glazing not part of a labeled assembly.

Vertical and sloped glass in buildings are designed to resist wind and snow loads. Note that other factors outside the scope of ASTM E1300 are also relevant when selecting appropriate glass thickness for a given application, such as thermal stress, effects of windborne debris, building movement, noise abatement and safety glazing requirements.

What changed in the 2024 update?

ASTM E1300 technical adviser Stephen Morse, an associate teaching professor at Michigan Tech University, presented updates to the standard at the NGA Glass Conference: Isle of Palms | Charleston in February. The technical changes include adding material properties, analytical procedure corrections, glass bite pullout method, expanded approximate maximum allowable stress procedure and a revised effective thickness example, along with several editorial changes.

Glass Material Properties

Material properties were not previously included in ASTM E1300. The updated version now includes modulus of elasticity, Poisson ratio, density, surface parameters and static fatigue constant for soda lime glass. As other glass types are introduced in the standard, the corresponding material property values will be added.

Glass Bite Pullout Method

The standard says that the glass edges shall not lose support. It provides a method to estimate how much edge pull-in will occur based on the center of glass deflection. The straightforward equation addresses 2-, 3- and 4-side supported glass. The equation also recognizes changes that will be needed due to the types of edge support and the framing system.

Maximum Allowable Stress

The maximum allowable stress procedure is heavily modified in the new version of ASTM E1300. New tables were added with a series of allowable stresses based on time (three seconds to one year), heat treatment (annealed, heat-strengthened or fully tempered) and probability of breakage (8 in 1,000 or 1 in 1,000) to give designers a variety of options.

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Revised Effective Thickness Method

The annex of the standard included an example calculation of effective thickness using a symmetric laminated glass construction. This was replaced in the updated version by an asymmetric laminated glass example with two sides simply supported. The calculation is unchanged, and values are provided for all intermediate calculation steps to improve the usability of the calculation.

Ongoing work of the committee

The ASTM E1300 Committee continues to work on expanding the non-factored load charts for larger glass dimensions and different aspect ratios. Non-factored load is defined as the three-second duration uniform load associated with a probability of breakage less than or equal to 0.008 for monolithic annealed glass. For laminated glass, all charts are being

Get involved in standards development

Join NGA task groups

Your voice is needed to ensure standards reflect the interests of the industry. Consider volunteering your time to help shape technical resources. Specifically for glass and fenestration guidelines, NGA members may join NGA committees

and task groups. These peer groups offer opportunities to discuss specific issues with other industry experts through virtual and in-person meetings, and to draft and refine guidelines via industry consensus that may be expanded and presented to ASTM for consid-

eration as a new standard. To get involved at NGA, visit glass.org/membership.

Join ASTM

Several membership levels are available at astm.org/get-involved/membership, with opportunities to serve on technical committees.

revised to account for current published shear modulus data from interlayer manufacturers, various interlayer thicknesses and constructions. Further updates to ASTM E1300 and other standards will continue to follow the industry-consensus ballot method.

How to access the standard

The updated standard is available to purchase and download from ASTM at astm.org/e1300-24.html. The National

Glass Association collaborated with ASTM to co-publish ASTM Glass and Glazing Standards for the Building Industry. The compilation of 96 key ASTM standards includes forced-entry-resistant systems, flat glass, glazing, building sealants, acoustics and fenestration products. ■

Karen Wegert is director of technical services with the National Glass Association.



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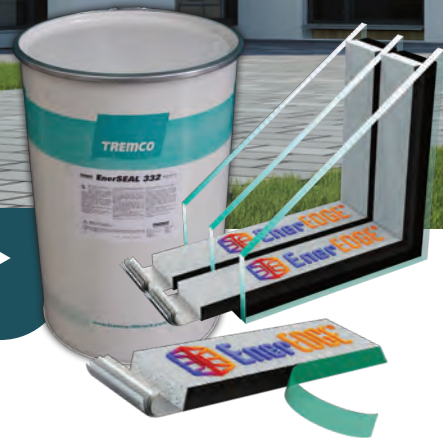


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Unlocking Remodeling Growth

Analysis shows that the balance of importance for remodeling is tilting away from recent movers and more toward households that stay put

BY CHRIS BEARD



THE BOTTOM LINE: Entering 2024, high inflation and tempered Fed rate cut expectations have led to uncertainty in big-ticket remodeling despite underlying fundamentals for growth, such as an aging housing stock and rising household wealth, with many in the industry believing a rebound may not occur until consumer confidence improves and financing costs ease.

Coming into 2024, all eyes were on the Fed, which, at the end of 2023, had penciled in three rate cuts for 2024. Expectations were that lower interest rates would unlock existing home sales and get consumers off the sidelines for big-ticket discretionary purchases and remodels. Higher-than-expected inflation in early 2024 caused the Fed to temper expectations, signaling potentially just one rate cut in the fourth quarter. This has led to speculation that a rebound in big-ticket remodeling may not come at all this year.

Entering 2024, we did not foresee a rebound in big-ticket R&R until later in the year, as homeowners continued to be pressured by affordability. Costs for building products are 40% higher than in 2019. Many in the industry believe big-ticket R&R projects correlate more closely with existing home sales, which have been under pressure over the year's first half.

Approximately 87% of outstanding mortgages are now locked in below 6%. While we are past the peak lock-in during Q1 2022, when 92% of borrowers had a mortgage rate below 6%, many

households are unwilling to give up these low rates in favor of a different home. We believe existing home sales will remain pressured throughout 2024.

Overstatement of existing home sales to remodeling demand

At John Burns Research and Consulting, our analysis shows that the balance of importance for remodeling is tilting away from recent movers and more toward households that stay put. Approximately 80% of remodeling is done after a household has been in their home for more than two years. A big part of this story is older households with wealth who are staying in their existing homes longer. Since 2009, the correlation between existing home sales and remodeling has progressively weakened. This is before the Covid-induced pull-forward of remodeling activity post-2020, which saw a surge in remodeling projects during the pandemic.

Our analysis shows that the Covid-induced boost to remodeling was material, driven by more time spent in the home and a wave of



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¹Comparison of R-values of fiberglass to wood doors (both without glass). ²Builder Brand Use Study conducted by Zonda.

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cash-out refinancing for large remodeling projects. We estimate that home improvement spending as a share of total consumer spending underwent a large one-time boost. This pull-forward activity subsequently dragged down remodeling spending and, according to our estimates, will be fully exhausted in the second half of 2024, allowing the

remodeling market the opportunity to grow again.

What drives home improvement spending

Household wealth in all its forms, including stock market wealth, strongly correlates with spending on large home improvement projects. Despite per-

sistent inflation, homeowners have benefited from rising home equity levels, gains in real personal income and stock market holdings since late 2023.

In our latest quarterly U.S. Remodeling Index, we asked firms what is holding them back from achieving stronger growth throughout the next six months. Professional remodeling firms cited consumer uncertainty as the main reason for weaker growth over the remainder of 2024. The second most cited reason was skilled labor availability. Interestingly, fewer remodelers cited higher financing costs than these two choices. It is very telling that despite soft remodeling activity today, skilled labor availability still ranks as a top concern for professional remodelers.

While the underlying fundamentals of stronger remodeling growth are present, consumer uncertainty around the overall macro economy remains a barrier to unlocking growth. We believe once consumer confidence shows a steady rise from an improved outlook, and financing costs for remodels ease, an uptick in big-ticket remodeling will follow. This is supported by:

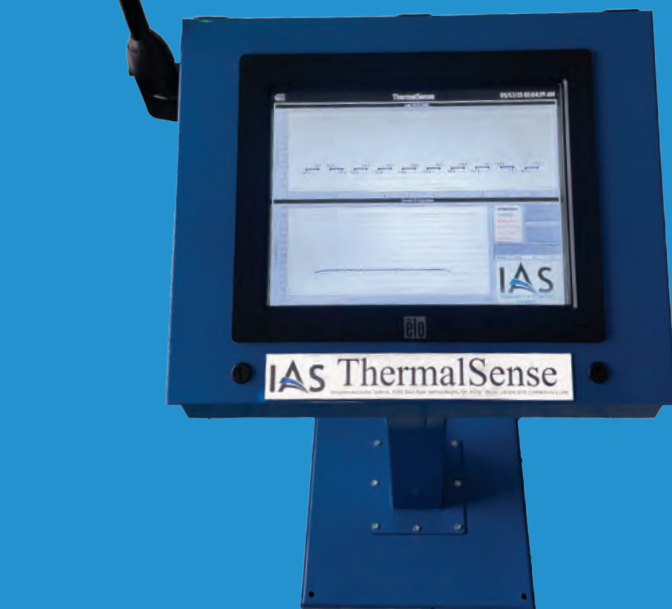
- An aging housing stock
- The residual impact of higher household formation
- Lower financing costs coinciding with the Fed cutting rates
- Exhaustion of Covid-induced pull-forward of remodeling

Commentary on public companies' recent earnings calls reflects this sentiment. No one is doubting the return to remodeling growth. The timing, however, remains uncertain, as does the macro environment. ■

Chris Beard is the director of building products research for John Burns Research and Consulting. He can be reached at 419/215-1881 or chrisbeard@jbrec.com.

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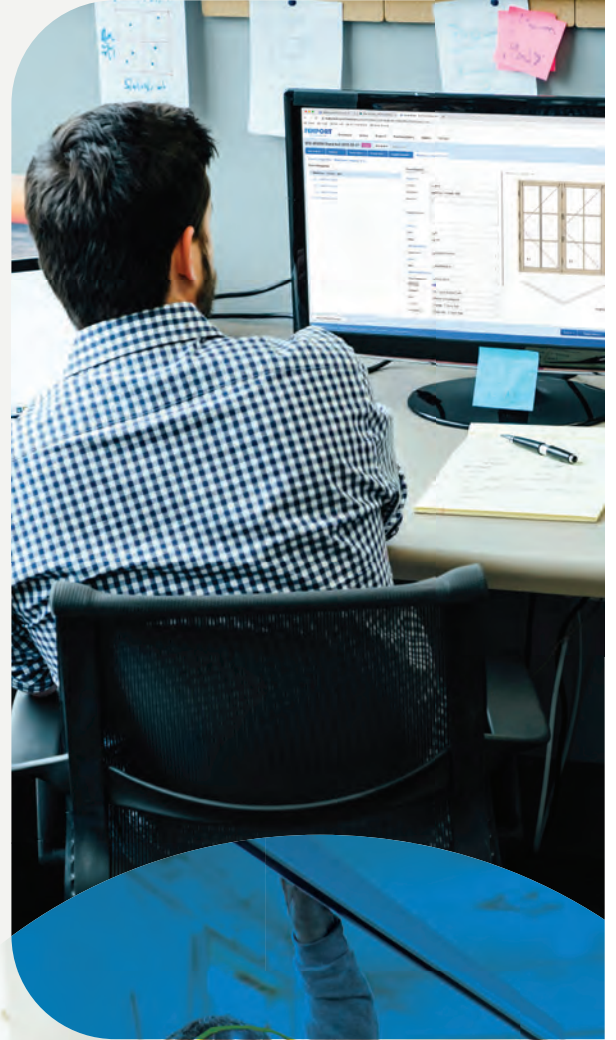
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THE BOTTOM LINE: Window suppliers must carefully select appropriate windows based on geographic location, consider the structural stresses during module transportation and assembly, and coordinate AAMA 502 testing to address potential product issues early while protecting themselves with proper documentation.

Window-specific Issues in Modular Construction

While modular construction offers numerous benefits, window suppliers must carefully consider factors

BY SUSAN MACKAY



Modular construction is the practice of prefabricating large units and transporting them to another site where they are assembled to form a complete building. After the modules are transported and placed at their final destination, on-site construction crews complete additional work before occupancy.

Companies engaging in modular construction boast about the many benefits of off-site building: cost savings, reduced construction times, less waste and controlled building environments. For window companies, the benefits include having windows installed by people who routinely install the same product in a warehouse protected from the elements. Despite these benefits, there are a few concerns specific to windows that suppliers and manufacturers should consider when it comes to selling windows for use in modular construction.

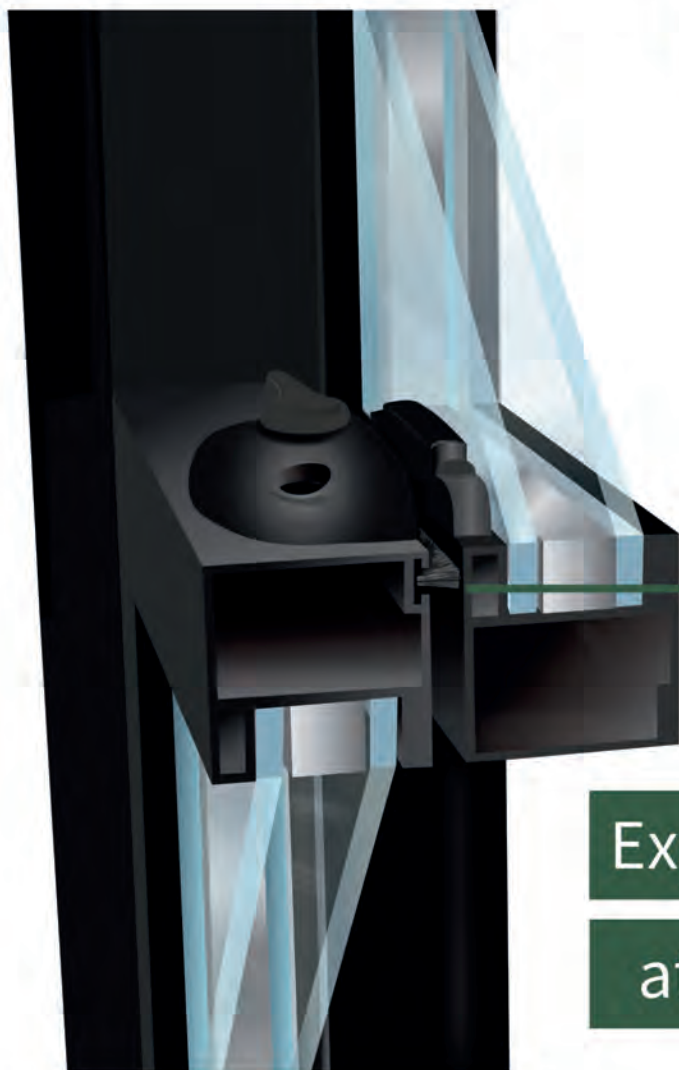
Window selection

Selecting the proper window for the modular structure and its eventual geographic location is crucial to future performance. A window that works well in one geographic location might not be ideal for another based on weather conditions. When promoting a window for use in modular construction, consider the eventual location of the module rather than the market in which you are selling the window. Keep in mind that modular housing must comply with the International Building Code and any local regulations in the jurisdiction of the modules' eventual location.

Careful consideration should also be given to the type or configuration of the window. The very concept of modular construction means the modules will be primarily built in one place and transported to another location for assembly and on-site finishes. Moving a module involves use of a crane to lift the module at its off-site location, placement on a truck, transportation to its final destination, lifting the module again and incorporating it into the larger structure.

Movement of and/or damage to the windows can occur if this is not done properly. Improper placement of modules on top of other modules on-site can also result in unwelcome structural stresses placed on windows in the lower modules.

Some of these risks may be avoided by determining the best frame material



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and window configuration for the application. Is vinyl better than aluminum to avoid compromising the miter joints? Is a simple standard-sized single window preferred over a multiple window configuration with mulls or other non-integral parts?

AAMA 502 testing

It is good to know at what point in the construction process AAMA 502 testing (if any) is to be performed. AAMA 502, Section 6.1 and Note 3, dictate that testing should occur “as soon as practical” after installation has begun so that if there are product issues they can be identified and remedied before a “substantial portion” of the project is completed. Testing windows prior to transportation allows it to occur early on in construction (within six months of installation) and at a time when any issues the testing identifies can be more easily remedied. It also ensures that only the window product as-installed is tested, rather than the window product as-installed plus the quality of transportation, placement and any undue stress loads caused by stacking modules.

The owner and/or builder likely want the windows tested after the structure is assembled on-site because they are interested in the performance of the windows in the fully assembled structure. One way to please both parties is to test a window or two early on in construction

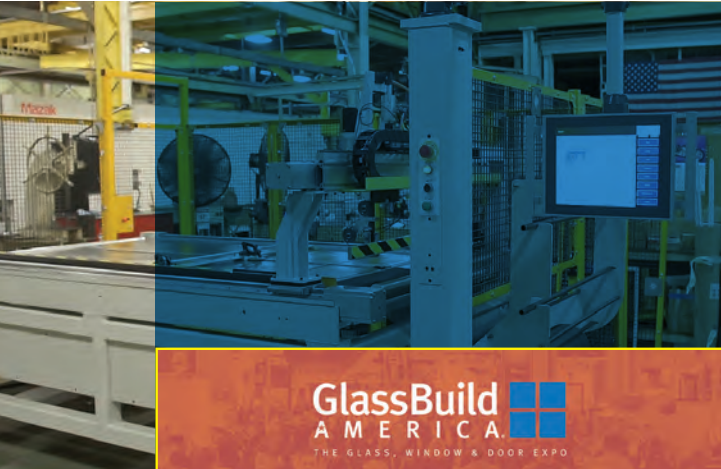
and then test a couple more after transportation and placement on-site. This not only enables the parties to confirm early in the process that the windows installed off-site are performing properly, but also if there are failures during on-site testing it may be easier to trace them to causes unrelated to the manufacture of the window.

Documentation

Window suppliers and manufacturers can take additional measures to protect themselves against the unique risks associated with modular construction, such as including short statements or disclaimers in the terms of sale and warranty documents addressing windows in modular construction. These measures are especially important where the window company is unaware that its windows are intended for modular construction and where there is no input into when AAMA 502 testing will occur. ■

Susan MacKay is an attorney with The Gary Law Group, a law firm based in Portland, Oregon, that focuses on legal issues facing manufacturers of windows and doors. She can be reached at 503/620-6615 or susan@prgarylaw.com.

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Wind Speed Zones Affect Demand

Weather severity and coastal population growth heighten window demand in high wind speed zones

BY CASEY OLSON



With populations increasing in vulnerable coastal counties, demand for weather-resistant building products has increased as the severity of storms and wind speed intensify. Storm activity and population growth are significant considerations as the impact-resistant windows market continues to evolve.

The Florida Building Code and other regulatory bodies classify areas along the Gulf and Atlantic Coasts into wind

speed zones. The code requires building envelope products used in higher wind speed zones to comply with stringent design standards to minimize damage to homes from high winds and windborne debris in hurricane-prone areas.

Figure 1 groups window demand into three wind speed tiers (high, mid and low), quantifying the number of units demanded in each tier based on the underlying housing stock and usage

THE BOTTOM LINE: Increasing storm severity and coastal population growth are driving demand for impact-resistant windows, particularly in high wind speed zones along the Gulf and Atlantic coasts, with regulations requiring stringent standards for these products to minimize damage from hurricanes, leading to significant market growth opportunities.

metrics. In 2023, nearly 10% of U.S. residential window demand came from the highest wind speed zones (140-plus miles per hour). That's roughly six million units consumed in the most hurricane-prone areas of the country, primarily along the Gulf Coast and up the Eastern Seaboard.

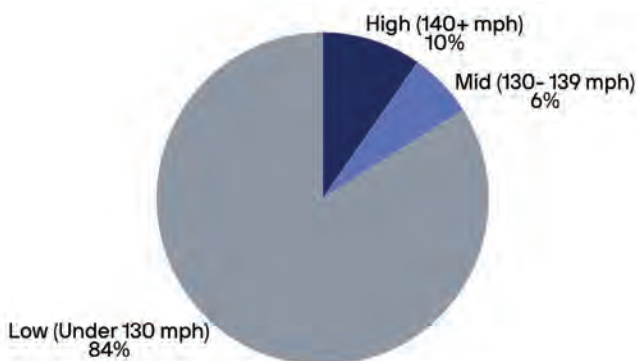
Escalating intensity is an increasing threat

Storms in the Atlantic Basin have increased and are expected to accelerate and intensify, inflicting more damage and reaching further. The U.S. National Oceanic and Atmospheric Administration projects that hurricanes will likely have 10% higher wind intensities in the coming century and will reach the most intense Category 4 and 5 levels. The "poleward expansion" phenomenon shows hurricanes affecting areas further north and south than they have historically impacted. For example, Hurricane Sandy hit the Northeastern Seaboard in 2012 and was the fifth costliest hurricane on record.

Population growth in coastal counties

There are over eight million dwelling units within one mile of the Gulf

Fig. 1—National Window Demand by Wind Speed Zones, 2023



Source: Principia U.S. Residential DemandBuilder® Windows

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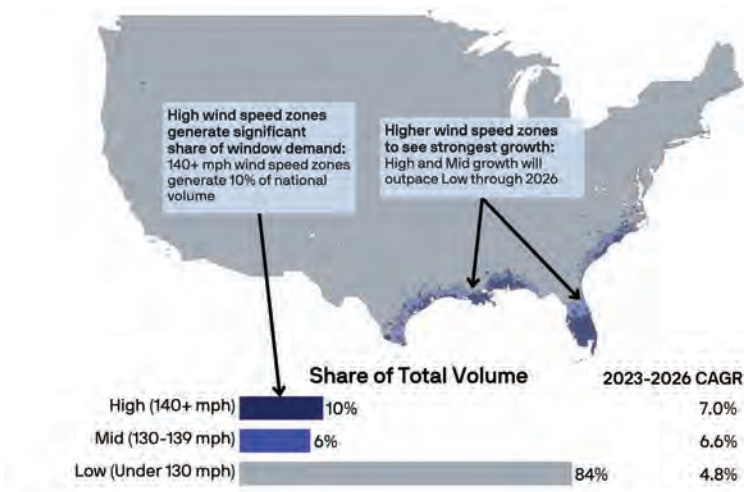


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Over the next five years, the number of windows consumed by homes in 140-plus miles per hour wind speed zones will represent an opportunity for above-market growth, increasing to eight million windows in 2028.

Fig. 2—U.S. Residential Window Demand Wind Speed Map



Source: Principia U.S. Residential DemandBuilder® Windows

Coast, which account for over 6% of the national housing stock of almost 140 million units. For the country overall, the number of dwelling units increased about 1% per year from 2000–2023. Gulf Coast dwellings grew at an annual rate approaching 2%, nearly twice the national average, as more Americans migrated south.

Homeowners in high wind speed zones in Southern states have a heightened need for replacement windows. Principia research shows homeowners are more likely to have replaced their windows for weather-related reasons if they live in a high wind speed zone. Homeowners in the highest wind speed zone were 1.5 times more likely than homeowners in lower wind speed zones to cite weather damage as the reason for replacement. Further, homeowners who replaced their

windows for weather-related reasons did so an average of 10 years sooner than homeowners replacing for age-related reasons.

High wind speed zone demand to grow

Window demand growth is projected to be strongest along the hurricane-prone Gulf Coast, including Texas and Florida, and up the East Coast. Window demand from the highest wind speed tier will top seven million units by 2026, growing at a compound annual growth rate of 7%. In comparison, low wind speed zones are expected to see slower growth of 5% annually.

Impact-resistant window segment grows

Ever since Hurricane Andrew devastated

South Florida in the 1990s, codes have required windows in high wind speed zones to be impact-resistant. Code authorities require new and replacement windows to be impact-resistant or protected from impact if located within one mile of the coast where the design wind speed is 130 mph or greater, and anywhere the design wind speed is 140 mph or greater.

Impact-resistant windows are an important element of home hardening. Florida encourages home hardening with financing and sales tax incentives. Impact-resistant windows can also reduce home insurance premiums—important in a state with the nation’s highest average home insurance cost.

Many manufacturers are now participating in the impact-resistant window segment to address the 10% of national demand generated by homes in the highest wind speed zones. Among large window manufacturers selling in the southeastern U.S., roughly half now have at least one model rated as impact-resistant. Over time, many major window manufacturers have entered the impact-resistant market by acquiring smaller impact-resistant window manufacturers in Florida and the Southeast.

Projected growth opportunities

Demand for impact-resistant window products in high wind speed zones is projected to grow as migration to the Gulf and Atlantic Coasts continues and storms intensify. Over the next five years, the number of windows consumed by homes in 140-plus mph wind speed zones will represent an opportunity for above-market growth, increasing from six million windows in 2023 to eight million in 2028, and expanding from 10% share of national demand to 11%. ■

Casey Olsen is senior industry analyst at Principia U.S. Residential DemandBuilder Windows.



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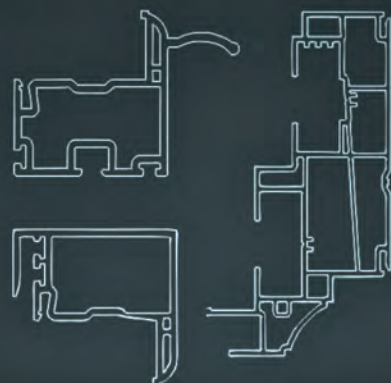


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Among its many environmentally friendly practices, VEKA employs sustainable practices in its manufacturing, including process water recycling and energy-saving technologies. VEKA also uses its customer's cut-offs and plans an in-house recycling center for 2025.

To a Greener Future

How VEKA is making strides to make their company and the industry as a whole more sustainable

BY LAURIE COWIN

Amid escalating requirements for building product manufacturers to be green, VEKA North America continues to rise to the challenge. The company embodies its commitment to a better future in its “We Care, We Act, We Grow” mission statement, which Window + Door and VEKA North America spoke about in 2023 at its headquarters in Fombell, Pennsylvania.

Window + Door visited VEKA in June to talk with Joe Peilert, president and CEO, and Kevin Seiling, vice president, engineering, about the compa-

ny’s initiatives related to recycling, sustainable practices and the vinyl industry at large.

Window + Door: Why is environmental responsibility and recycling so important to VEKA?

Joe Peilert: We’re a family-owned business. When we created our mission statement, the owner family came up with this term called “enkelgerecht.” It’s a German term that means “worthy of the grandchildren.” Ultimately, we

translated that into “future friendly.” The family is in its second generation of ownership now and has had a very strong commitment to sustainability and recycling.

WD: VEKA aims to be carbon neutral by 2045. Can you expound upon that goal and what it entails?

JP: Our overall goal as a global company is to be carbon neutral by 2045. We started measuring our carbon footprint in 2022 and tracking our improvement to make sure we achieve progress each year.

This goal also accounts for our supply base, so we capture things like transportation across all of the 24 plants VEKA has worldwide. Each production facility has a responsibility to report numbers back. We document our progress in our biannual Corporate

Social Responsibility (CRS) report.

Our CSR focuses on four areas. One: long-term careers in a healthy and safe environment. Two: eco-friendly production wherein we employ environmentally responsible production processes, including process water recycling and extensive investments in energy-saving technologies. Three: design and supply thermally efficient, cost-effective vinyl profile systems for Energy Star 7 and beyond. Four: our commitment to recycling, which dates to 1993.

WD: Can you tell me more about the company's recycling history?

JP: VEKA has pioneered recycling in Europe and has an infrastructure that goes beyond pre-consumer recycling to post-consumer recycling with its three plants in Germany, England and France. We've recycled over 25 million PVC windows since we started. In North America, there's significant potential for growth in recycling. We need to work on regulatory hurdles, create cost-effective landfill alternatives and address logistical challenges, especially for longer distances.

WD: How are the North American locations recycling product and using recycled content?

JP: VEKA North America is dedicated to using 100% of our customer cut-offs, recycling internal start-up scrap and using additional sources of vinyl scrap for our Outdoor Living Products (OLP) business. To achieve that, we plan to establish an in-house recycling center by 2025 while simultaneously working with outside recycling specialists. As we explore post-consumer recycling options, I see additional opportunities for collaboration.

Not all scrap material can be readily reused in window profiles, such as colored material and profiles with weatherstrip. Separation and manual handling add cost to the process. Profile designs with recycled material

often need thicker internal walls, which may add cost. We're fortunate to have another outlet for recycled material with our OLP business. Growth in our fence business has allowed us to use additional sources of vinyl scrap, making us a net user of recycled material. We're progressing and believe we can increase the recycled content over time.

There are also some secondary products we produce from recycled materials that are specifically in-house, including rack liners that go into window profile racks and prevent them from getting damaged.

WD: How does VEKA support sustainable practices beyond its products?

JP: We've made a lot of investments in the past couple years such as energy-saving lighting and using less power on extrusion lines. There is also the advocacy part of our business. Kevin is very engaged in FGIA and one of the leaders driving life cycle analysis (LCA) and environmental product declarations (EPD). That ultimately helps us as an industry and a company to properly portray the role vinyl windows can and are playing in providing cost-effective, thermally efficient solutions for homeowners. The LCA and EPDs provide proof there is not a more cost-efficient way to have an energy-efficient window today. That's why you have north of 70% market share for vinyl windows in the residential space.

WD: Can you share more about the work with the LCA and EPDs?

Kevin Seiling: I'm the first vice president of the materials council for FGIA and wrote a grant application to fund a recycling study. There are several considerations in post-consumer recycling, including ensuring the windows are lead free, determining operator types and also the volume of windows being replaced. It turns out there's a pretty substantial amount of

material coming out of openings every year. There's a big opportunity there for recycling.

At the same time, we're working on an LCA. VEKA is one of six vinyl extruding companies that funded it; we hope to publish the LCA by September. The LCA is cradle-to-gate, meaning from the time we make it until we ship it.

Additionally, the EPD product category rules were updated this past year for windows, doors and skylights. So, we'll take the updated PCRs, the new LCA and start making EPDs for vinyl windows. Our next step will be creating EPDs for our standard family of windows. We'll also help our customers develop their own EPDs.

WD: What is the goal of the EPD? What will it ultimately do for the industry?

KS: The primary consumers of our products are architects and specifiers. If they're working on a government building, for example, it's generally owned and managed by the GSA, which engages in USGBC's LEED program. LEED requires a certain number of points, which EPDs can contribute to. The window industry hasn't caught up yet with other industries where EPDs are more commonplace. There are only a few that exist, so this will be the first real run at commercial products and applications where we can provide all the tools you need with the LCAs and EPDs to demonstrate the energy performance of these products. We want to offer our customers solutions that advance their environmental positioning as a competitive advantage. ■

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BY NORAH DICK, LAURIE COWIN, TARA LUKASIK AND RACHEL VITELLO

GlassBuild America: The Glass, Window & Door Expo, will return Sept. 30 – Oct. 2 in its biggest edition yet. And that big size is appropriate to the new locale: Dallas, Texas. The 490-plus exhibitors to the show will enjoy 207,400 square feet of space at the Kay Bailey Hutchison Convention Center, as well as the new market and networking opportunities this new location promises. The size of the show, and the fact that its square footage has more than doubled throughout the past 12 years, is a testament to the glass and fenestration industries’ ability to grow amid the difficult economic landscape of the past few years.



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Chris Kammer, sales and marketing coordinator, A+W Software

EXCITEMENT BUILDS FOR DALLAS

The show’s new location in Dallas offers new opportunities for both exhibitors and attendees. “I’m excited about GlassBuild being held in Dallas this year after many years of rotation between Las Vegas and Atlanta,” says Ron Crawl, NGA board chair and senior advisor, windows, doors and glass at Cyncl. “It’s a gentle reminder that all of us should be open to new ideas and changes. Not only do we collectively have an opportunity to see what’s new in the industry and catch up with industry peers and friends, but we can also explore a new city.”

“Choosing a new venue, and specifically Dallas, is a direct response to feedback from our exhibitors and attendees, and we’re planning an event that is invaluable to everyone,” says Nicole Harris, president and CEO, National Glass Association.

Many exhibitors already see value in the new location ahead of the 2024 show. “Dallas is a vibrant city with a growing market for our industry,

which we believe will attract a diverse and enthusiastic audience,” says Ed Robles, vice president of sales, HHH Equipment Resources and Salem Fabrication Supplies. “The city’s central location and excellent transport links also make it convenient for attendees from all over the country. Moreover, Dallas offers a wealth of networking and business development possibilities due to its dynamic economy and large concentration of related industries.”

“The city’s strong economic growth and investment in construction and infrastructure projects provide a promising backdrop for discussions on the future of the glass, window and door industry,” says Chris Kammer, sales and marketing coordinator, A+W Software.

2024 GlassBuild exhibitors also commented about the continued importance of face-to-face networking for staying up to date with the latest trends in glass and fenestration. “We are eager to explore new industry trends in sustainability, energy efficiency and digital integration that could shape the future of building materials and construction,” says Greg Koch, vice president of sales and marketing, Deceuninck North America. “GlassBuild provides an excellent opportunity to stay on the leading edge of industry developments, collaborate with industry leaders and drive innovation forward.”

In-person shows also continue to have unique benefits for sales. “With the complexity and price of machinery increasing, the need to see the machinery running and performing in the ‘show’ environment is a huge benefit to engage potential customers,” says Brian Ludwig, sales manager, Erdman Automation. “It also showcases the ability of our service and install teams to potential customers when they see a fully functioning line up and running in short order for the show.”

FIND EDUCATION AND SOLUTIONS ON THE SHOW FLOOR

In addition to catching up with customers, booth visitors and potential leads,

SCHEDULE AT-A-GLANCE

SEE THE FULL SCHEDULE:



Sunday, Sept. 29

9:00 a.m. – 5:00 p.m.
Exhibitor registration open

1:00 p.m. – 5:00 p.m.
Attendee registration open

Monday, Sept. 30

7:00 a.m. – 5:00 p.m.
Attendee and exhibitor registration open

8:00 a.m. – 9:00 a.m.
NGA Installing Committee Meeting

9:30 a.m. – 5:00 p.m.
Glazing Executives Forum

10:00 a.m. – 5:00 p.m.
Exhibit hall open

10:30 a.m. – 5:00 p.m.
Main Stage programming

11:45 a.m. – 1:15 p.m.
Main Stage Keynote: Blueprint for Collaboration Lunch & Learn

3:00 p.m. – 4:00 p.m.
Main Stage Keynote: Forecast Outlook with Connor Lokar and Chris Beard

Tuesday, Oct. 1

9:00 a.m. – 5:00 p.m.
Attendee and exhibitor registration open

10:00 a.m. – 5:00 p.m.
Exhibit hall open

10:30 a.m. – 4:15 p.m.
Main Stage Programming

12:30 p.m. – 1:30 p.m.
Main Stage Keynote: Building the Next Generation with Emily Pilloton-Lam

3:00 p.m. – 3:45 p.m.
Best in Show Awards

3:45 p.m. – 4:15 p.m.
Glass Magazine Awards

Wednesday, Oct. 2

9:00 a.m. – 1:00 p.m.
Attendee and exhibitor registration open

9:00 a.m. – 1:00 p.m.
Exhibit hall open

9:30 a.m. – 11:00 a.m.
Women in Glass + Fenestration Keynote and Brunch

1:00 p.m. – 2:30 p.m.
Magic of Glass After-Party

attendees and exhibitors can also find industry insights, education and more on the GlassBuild show floor.

Tailored solutions at the Industry Pavilion

The Industry Pavilion, Booth #17009, is where you'll find the association sponsors of GlassBuild, the National Glass Association, and the Fenestration & Glazing Industry Alliance, offering up the solutions their members need.

Beyond its impressive advocacy and technical knowledge on all things glass, NGA provides education opportunities for the current and future workforce through MyGlassClass.com—a collection of three different training paths for glass installers, fabricator personnel and glazier apprentices. NGA will feature the MyGlassClass.com Learning Lab in the Industry Pavilion during GlassBuild to give interactive demos on its course offerings.

FGIA is dedicated to improving home and building performance through better glass, window, door and skylight technology and standards to help their

members excel. FGIA is an inclusive community offering the glass and fenestration industry solutions through research, consensus-based standards, product certification, advocacy, and education and professional development.

Education and expertise on the Main Stage

Another can't-miss at GlassBuild America 2024 is the GlassBuild Main Stage—hosting three days of learning, networking and industry celebration—centrally located on the trade show floor in Booth #19009. Main Stage sessions are open to all GlassBuild America attendees. Programming is presented by NGA and sponsored by NGA's MyGlassClass.com, Glass Magazine and Window + Door.

Once again, the Main Stage will be a place for industry to come together to network and connect. Opportunities include the third annual Women in Glass + Fenestration Networking Breakfast, the Glass Magazine Awards reception, and a focus on prioritizing mentally safe workplaces alongside physical safety.

The Main Stage will host must-attend talks from speakers such as Connor Lokar, senior forecaster for ITR Economics; and Emily Pilloton-Lam, a designer, builder, educator, TED-talk veteran and driver for recruiting young people to jobs in construction. Fenestration and residential building-focused sessions include the latest from the Window and Door Market Survey, presented by Chris Beard, director of building products research for John Burns Research and Consulting.

Adjacent to the Main Stage will be the first-ever GlassBuild Podcast Studio, where episodes of NGA's Glass Cast and Window Cast podcasts will be recorded throughout the show.

Stay for the "magical" after-party

Next year's GlassBuild America will be hosted at another new location—Orlando. To capture the excitement of this new location and market, NGA will host The Magic of Glass After-Party at the end of this year's show, featuring golf simulation and a virtual reality plank walk, along with Southern-inspired food and beverages. ■



GLASSBUILD PRODUCT SHOWCASE

Find products, solutions and services for your business at GlassBuild America: The Glass, Window & Door Expo, which relocates to the big market of Dallas, Texas. Speaking of big, the whopping 100-plus products in this product showcase are just some of the fenestration offerings you can see at the show. Companies continue to debut brand-new and updated products and services on the GlassBuild show floor. Don't miss out: register for the show at GlassBuildAmerica.com to see these products in person in Dallas.

- 44 WINDOW AND DOOR SYSTEMS + DESIGN
 - 56 MACHINERY + EQUIPMENT
 - 78 HARDWARE, COMPONENTS + SEALANTS
 - 94 SOFTWARE, TOOLS + SERVICES
-



A Part of Something BiggerSM

See us at GlassBuild America, booth 32021.

PROVIDING ONE OF A KIND SCREEN TECHNOLOGY

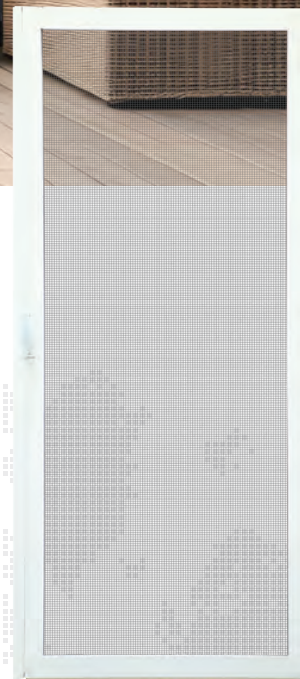
TAKING SECURITY AND PERFORMANCE TO THE NEXT LEVEL

Always a leader in the fenestration industry Quanex continues to pursue products and solutions that are revolutionary and add exceptional value.

Screens made with **Meshtec** high-tensile technology deliver outstanding durability, standing up to pets and humans, providing consumers a screen system that they can enjoy for an entire lifetime. All with the added benefits of securing the home against unwanted break-ins, insects, and harmful UV rays.



Scan the QR code for complete pet & security screen options and technical data, or learn more by visiting our website at [QUANEX.COM](https://www.quanex.com)



NEW



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aluplast

The Smart-Slide Neo for sliding doors by aluplast can be manufactured in dimensions up to 19 by 8 feet. Panel thicknesses up to 1 ½ inches are possible—single- to triple-glazed—with modern classic line design, concealed hardware technology and top values for heat insulation. Additional locking points offer sealing and additional security. The Smart-Slide Neo also has good sealing performance against air, wind and driving rain. Booth #33053
+(00) 4917-2724-3826, aluplast.net

02

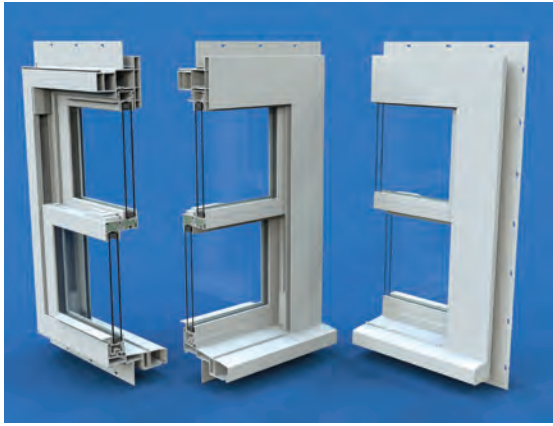
Assa Abloy Fenestration

Interlock's window opening control device, or WOCD, limits the opening of casement windows but can also be disengaged to allow the window to fully open. The function and performance are compliant to the ASTM F2090 standard specification for window fall-prevention devices. Cleaning and maintenance of an open window can be performed without additional care because the flexible, stainless steel sash connector will not bend due to accidental contact when disengaged. Booth #36025
888/347-7771, assaabloyfenestration.com

03

C2A Longterm Inc.

Tempered vacuum insulating glass by C2A Longterm is manufactured without an extraction port, reducing points of failure and leakage, and increasing the structural integrity of the glass. The glass is equipped with an alloy used as a getter that helps absorb small quantities of air leaking over time, helping ensure and extend the product's lifespan. Vacuum sensors are embedded inside to monitor the vacuum degree. The glass requires no extra transport, storage or installation needs, allowing for a wide range of applicable fields. Booth #31016
607/768-0576, c2alongterminc.com



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Chelsea Building Products Inc.

The 9490 double-hung window with an integrated flat casing by Chelsea Building Products simulates an applied exterior trim. This design saves money on installation, accepts a wide range of exterior cladding products, and is available with or without an applied sill nose. Booth #40011
412/826-8077, chelseabuildingproducts.com

05

C.R. Laurence Co.

The new Latitude 34° Barn Door Collection by C.R. Laurence includes three distinct sliding barn door systems—Hemisphere, Meridian and Solstice. The system enables several installation adjustments, including door stop location, track leveling and track height. The collection features concealed track fasteners and ball bearings; wall- or glass-mount options; high-grade 6005A-T61 and 6061-T6 aluminum construction; adjustable track height, track leveling, and door stops; and single or bi-parting door configurations. Booth #41025
800/421-6144, crlaurence.com

06

Cuhadaroglu Metal San Ve Paz AS

The HR4 Aluminum Hurricane Window Series by Cuhadaroglu Metal provides manufacturers with simple production and fast assembly. Designed for laminated and insulating glass options, the HR4 Series can be applied to villas, hotels, apartments, office buildings, institutional facilities and industrial buildings. It comes in single-hung, window wall, casement and sliding versions. The system has Miami Dade (18.0920.03) and Florida approval certificates. Booth #26003
+(90) 2122-2420-20, cuhadaroglu.com

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NEW

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Deceuninck North America

Eclipse by Deceuninck North America is a black solid-color PVC extrusion for windows and doors designed to meet growing market demand for dark-colored profiles. In terms of performance and aesthetics, Eclipse offers enhanced fabrication processing for Deceuninck customers by eliminating the need to touch up fusion-welded frame and sash corners in comparison to laminated, capstock or painted PVC lineals. Eclipse incorporates Deceuninck's Sun-Shield technology to minimize fading and features engineered pigment technology that limits heat absorption. Booth #25023 877/563-4251, deceuninckna.com

02

DeSCo Architectural Inc.

DeSCo Architectural's i85h Series historical replication window seamlessly blends historical accuracy and energy efficiency in an AW-100-rated aluminum window that offers panning options and contoured muntin grids. An ideal choice for renovation projects and new construction, the i85h Series offers historic charm coupled with the technology of tomorrow. Booth #19019 605/854-9128, descoarc.com

03

FG Glass

FG Glass offers an extensive product range, including architectural glass façades, interiors, and fire safety and security glass for applications in commercial buildings, residential projects, public infrastructure and special projects. Other products include insulating glass units, laminated glass, tempered glass, spandrel glass and ceramic frit glass, along with decorative glass options such as printed, acid-etched, back-painted and textured glass. The company also provides energy-efficient solutions with low-emissivity and solar control glass. Booth #15014 + (91) 9820-3679-64, fgglass.com

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0.243 U-value

See us at GlassBuild America,
booth 34027.



Learn more at
guardianglass.com

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Images are artistic renderings
intended to represent the reflected
and transmitted color of the glass in real
use conditions. Actual results may vary.

 **GUARDIAN
GLASS**
See what's possible™

01



02



01

FHC The Glazing Supply Company

The FHC G52 Series heavy-duty, thermally broken, bi-folding glass door system allows for wide, unobtrusive openings for outdoor views. In the closed position, the G52 Series provides a weathertight seal and resistance to ever-changing conditions, while allowing in natural light. Several configuration options are available to complement many architectural design styles. The system is designed to move smoothly and effortlessly. The FHC G52 Series bi-folding glass door system comes with a two-point locking system. Booth #45021
888/295-4531, fhc-usa.com

02

Gealan

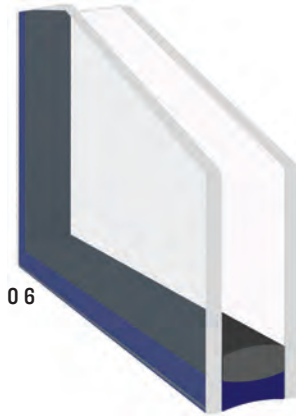
The Gealan-Linear profile system platform includes windows, front doors and sliding doors. The 74-millimeter technology, a further development in the 70-mm segment, ensures a high level of stability with modern functional glazing, and provides more security, sound insulation and thermal insulation due to the multi-chamber design. The universality of the system is rounded off by the linear design and follows the minimalist trend of modern architecture. Booth #10003
+(37) 0664-4281-3, gealan.de/en

03

Guardian Glass

ClimaGuard residential glass by Guardian Glass can help living spaces become beautiful, comfortable and energy efficient. The focused portfolio of residential glass products offers a ClimaGuard low-emissivity glass solution for every U.S. and Canada climate zone to make the most of views. ClimaGuard residential glass helps achieve solar control and thermal insulating performance with a collection of low-emissivity coated glass innovations that can help meet changing and increasingly stringent codes. Booth #34027
248/340-1800, guardianglass.com

NEW



0 4

Gutmann North America

The Gutmann S70 SK pop-out window features a parallel opening mechanism that creates an open perimeter around the frame. Fresh air enters from the bottom, while stale air exits from the top to maximize natural ventilation. Its restricted opening width of 3 1/8 inches helps prevent accidents, making it suitable for high-level floors while maintaining a seamless façade appearance. The window offers thermal and sound insulation, as well as high water-penetration resistance and low air infiltration. Booth #13003
416/488-6266, gutmann-na.com

0 5

Hans Building Material Technology

The 22A solar-powered integrated blinds between glass by Hans Building Material Technology offer effortless operation and precise control over light and privacy levels at the touch of a button. Powered by the sun, these blinds feature seamless integration between glass panes, and provide a clean and contemporary look that complements any space. With no need for external power sources or wiring, installation is hassle-free and environmentally friendly. Booth #38011
501/585-0810, solarhans.com

0 6

H.B. Fuller

H.B. Fuller's Ködispace 4SG reactive thermoplastic warm-edge spacer systems for commercial and residential applications are characterized by high energy efficiency, gas retention and automated processes, resulting in precise spacer placement. The formulation chemically bonds to glass and silicone secondary sealant. With no spacer migration, it has a high temperature stability and resistance to incompatible glazing conditions. The invisible thermoplastic spacer system results in a visually appealing insulating glass. Additionally, the auto-adjusting application provides flexible design freedom and triple-glazing manufacturing precision. Booth #18025
812/449-9567, hbfuller.com



01

Kenwa Trading Corp.

Kenwa Trading's NSC-G Series sliding door closer adds a full-range, self-closing function to glass sliding doors with a durable pull-spring device. The door closes automatically from any release position to a complete close position. The rotary gear damper provides safe and smooth soft-close at the end of door closure. Designed for left- and right-hand sliding door panels of either single, bi-parting and telescopic configuration. The NSC-G Series also features dual-speed adjustable control, a compact size and easy installation. Booth #26006

516/933-6016, kenwa-america.com

02

Mannix

The luxury Bud South Tower in Hunters Point, New York, features triple-glazed acoustical windows by Mannix. Comprised of in-swing casements, fixed windows and out-swing terrace doors, window openings consist of standard punched openings and window-wall. Mannix designed custom slab covers and decorative aluminum trim to complete the openings. Booth #53079
631/231-0800, mannixwindows.com

03

Panda Windows & Doors

The Voyage Select pivot door by Panda Windows & Doors offers modern design and highly engineered durability. Measuring 18 feet tall and 9 feet wide, the Voyage Select pivot door comes in over 10 designs, with the option to choose from a variety of tracks, panel profiles, glass options and hardware to customize a system. Each door can be operated almost effortlessly, even when panels exceed 300 pounds. Booth #50019

702/643-5700, panda-windows.com

Experience a safer and more open world



ONE team. Every solution.

Interlock USA and Caldwell Manufacturing Company are now ASSA ABLOY Fenestration. Our integrated companies continue to provide the best hardware solutions for windows, doors and beyond. We leverage the combined strength of the people behind two great brands offering a broad range of fenestration products, a strengthened manufacturing and distribution footprint to create an excellent customer experience.

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INTERLOCK
ASSA ABLOY

CALDWELL
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Experience a safer
and more open world

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NEW

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PH Tech Inc.

The S-8500 impact door from PH Tech comes with an aluminum interlock, sill water bar and impact-laminated glass. It meets some of the highest standards in the industry, such as HVHZ criteria, FBC and TDI approval. The internal partitions in the door make for a strong, stable frame that won't crack or warp. The door is built to withstand 140 mph winds. Add-on features include brick molds, jamb extensions, rebate flanges, jamb liners, groove covers and multi-chamber mainframes. Booth #27015
412/897-1191, phtech.ca

02

Quality Glass Fabrication

Quality Glass Fabrication offers high-volume, fabricated glass products with domestic flexibility. Based in South Carolina, Quality Glass Fabrication is a high-volume provider of tempered glass with delivery throughout the continental United States. Booth #14012

941/378-0051, qualityenclosures.com

03

Uni-K

Uni-K develops and manufactures aluminum and glass system solutions for American designs and standards with residential and commercial applications. The company offers a comprehensive range of door systems, windows and various solutions in aluminum and glass to complement any architectural style and performance in all climates. Booth #52097

+ (09) 9817-4544, unik-windows.com

In recent times Vision has received many inquiries about constant force balancers and the need for an additional source became apparent. Several years in the making have yielded a comprehensive offering sure to meet your current and future needs.

VISION CONSTANT FORCE BALANCE SYSTEM

An Easy Lift!

Vision has subjected our balances to rigorous third-party testing to ensure consistent reliability in every application. With a full range of weights, packed with features, our plug-and-play system is readily available to be added to your supply agreements. Once your dedicated stock is in our inventory you will enjoy next-day pickup or shipping as you have with all Vision parts. At Vision Hardware, we recognize the critical importance of providing reliable and efficient window hardware components consistently and reliably to our manufacturing partners. (Patent Pending)

Constant Force Balance Features:

- A full range of single, double, triple, and quad balances up to 44 pounds.
- Preassembled to meet your exact specifications for easy integration.
- Integrated pivot bar containment option available
- Easy reconfiguration if needed, providing adaptability to changing requirements.
- Multiple housing options and brake forces are available to suit your needs.
- Various pivot bars and mounting clips are available to accommodate your unique design.
- Open cam design allows for a lift-out sash with a single non-handed SKU.
- Tensioning screw enables customizable friction on cusp weights.
- Independently tested and listed on the AAMA-approved product list for quality assurance.

**Next day pick-up or 24 hour shipping.
In-stock and ready for delivery**

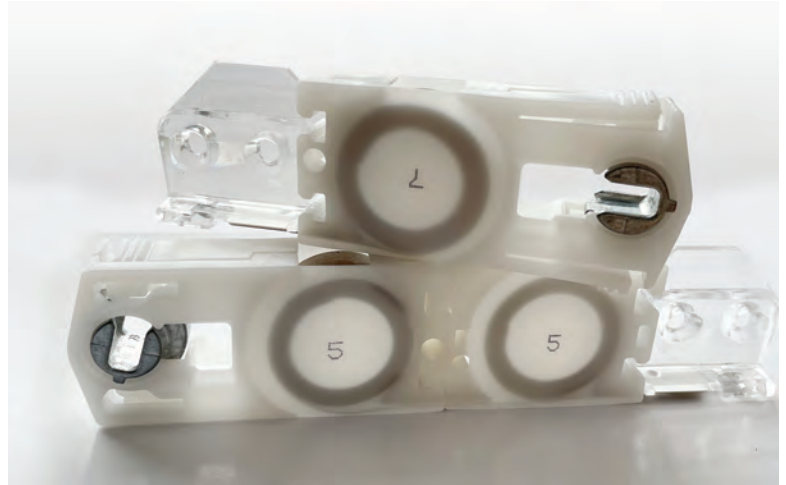
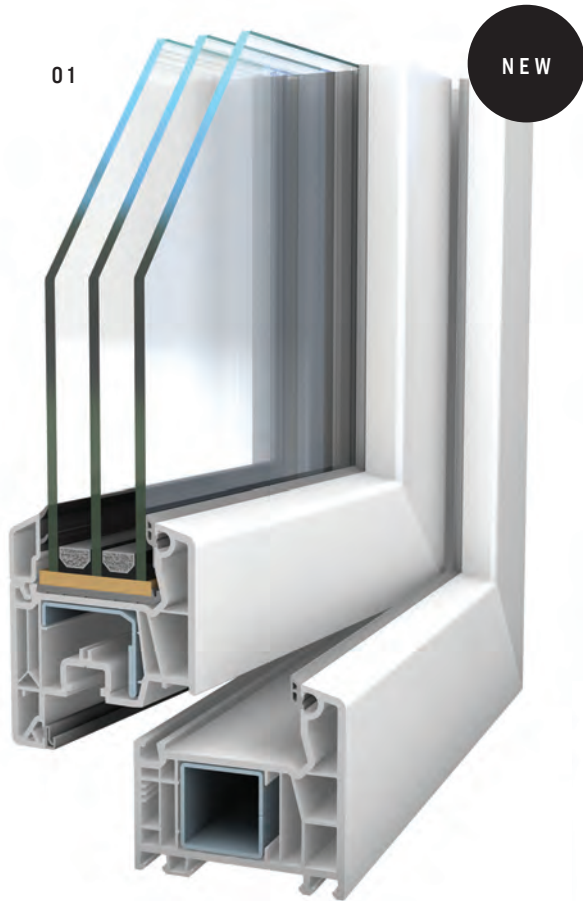
**GlassBuild
AMERICA.**
THE GLASS, WINDOW & DOOR EXPO

Booth: 22027



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01

VEKA North America

VEKA's Softline 70 AD is a 76-millimeter, five-chamber, tilt and turn system with a face width of 122 millimeters. The combination system—AD and MD in one platform—has a glazing bead height of 25 millimeters, glazing up to 48 millimeters and use of triple glazing up to a maximum of 48 millimeters. Other features include time-tested reinforcement and sealing concept. The integrated sealing concept is in the secondary profile area. Booth #39027 724/452-1000, vekainc.com

02

Vision Hardware Inc.

With a full range of weights, Vision Hardware's plug-and-play constant-force balance systems are readily available to be added to supply agreements. Featuring a full range of single, double, triple and quad balances up to 44 pounds, it's pre-assembled to meet exact specifications for easy integration. Integrated pivot bar containment option, easy reconfiguration, multiple housing options, and brake forces and various pivot bars and mounting clips are available. Booth #22027 908/822-2003, visionhardware.com

03

Vitro Architectural Glass

Sungate ThermL Glass by Vitro is a low-emissivity coating for the interior surface of a 1-inch insulating glass unit. It reduces heat transfer and improves U-values when paired with Solarban solar control low-e glass on the second surface. Ideal where increased insulation performance is needed, Sungate ThermL glass enhances U-value but does not change the visual characteristics of the IGU thanks to its colorless and low reflective aesthetic. The coating is durable and resistant to mechanical abrasion. Booth #43025 412/820-8500, vitroglazings.com



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EXPERIENCE,
INNOVATION AND
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TO HELP YOU
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VISIT US AT BOOTH 40011 AT GLASSBUILD AMERICA

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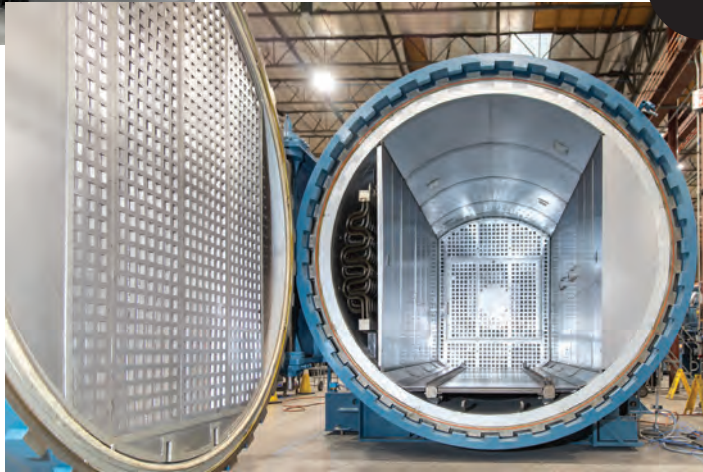


03



NEW

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Akarmak

The Glass Lamination Autoclave by Akarmak is suitable for use in various industries, including aviation, defense, glass, construction, rubber and sterilization. Akarmak's turnkey glass lamination autoclave systems include optional vacuum system, glass loading trolley and cooling tower features. Autoclaves are offered in jumbo glass sizes up to 3.3 meters, and super jumbo autoclaves in 3.3 by 9 meters and 3.3 by 12 meters. Booth #49076
 +(90) 2222-3617-00, akarmak.com

02

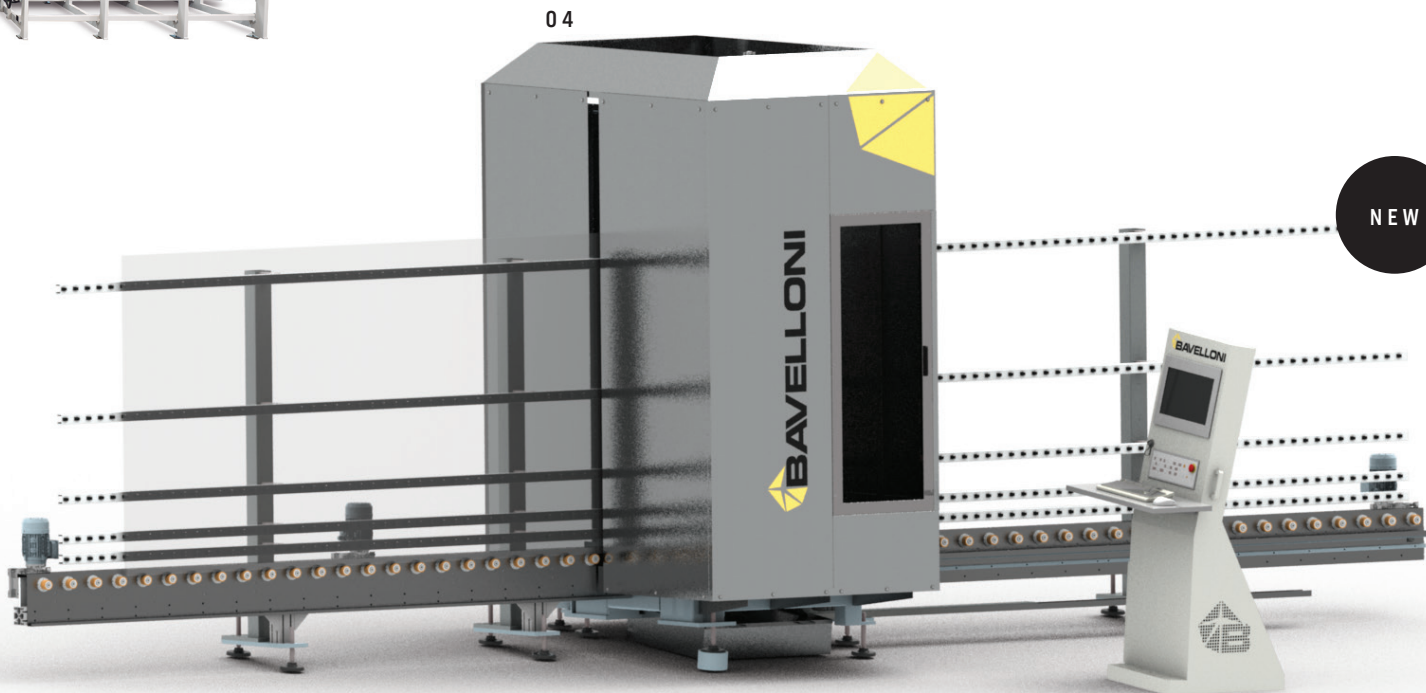
ASC Process Systems

ASC Econoclave systems are designed to provide lamination capabilities while reducing companies' operating expenses. The technology is powered by ASC's CPC Control system, which ensures precise temperature and pressure regulation, resulting in consistent and high-quality lamination outcomes. With its user-friendly interface and comprehensive monitoring capabilities, the CPC Control system empowers operators to achieve optimal process control. Booth #23052
 818/419-6642, aschome.com

03

Barberán SA

The Wrapmaster wrapping machine series has been specially designed for PVC/aluminum window manufacturers. The basic composition includes essential processes for overlaying this type of profile with thermoplastic foils, such as Finish Foil, fleece backed veneer and CPL, among others. Booth #34045
 +(34) 9363-5081-0, barberan.com



04

Bavelloni America

The VDM 1636 CN by Bavelloni America is a compact, versatile, vertical CNC work center designed for precise and fast drilling, countersinking, milling and notch grinding in a single automatic cycle. The base houses the inlet element, milling/drilling module and output element. The vertical structure with a single workstation minimizes space requirements, automates the work cycle and simplifies water collection. The central workstation features a double drilling head and rotating tool storage. Milling is executed with the glass stationary, secured by suction cups, ensuring grinding quality and speed. Booth #50037
336/299-8300, bavelloni.com

05

Beijing MGM Glass Machinery Co.

The company will exhibit Kenex Building Materials, which includes a thermoplastic spacer, a flexible spacer and butyl rubber. The company's thermoplastic material reduces thermal conductivity by more than 60%. TPS has high sealing performance and contains a desiccant to prevent fog, condensation and water leakage in the insulating glass units. The flexible spacer can be used as a solution for curved and shaped insulating glass. Booth #24053
+(86) 1381-0695-849, bjmgm.com.cn

06

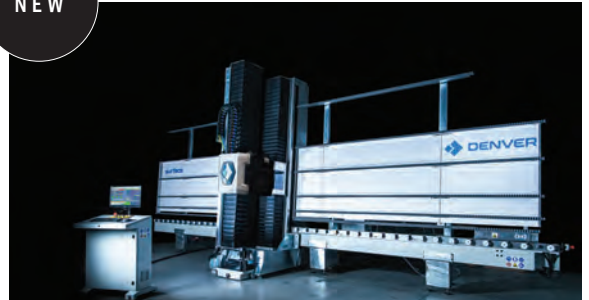
Billco Manufacturing Inc.

The Ultra Series wide belt glass cutting system by Billco Manufacturing is designed for the high-speed, high-volume glass-cutting requirements of large glass fabricators and window and door manufacturers. The Ultra Series cutting system has an improved cutting head and a larger drive system. Delivering a combination of performance and reliability, this cutter is designed to produce a high volume of cut glass. The linear motor drive system includes fewer mechanical parts, smooth and quiet movement, and improved cutting accuracy and tolerance. Booth #20027
724/452-7390, billco-mfg.com



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NEW



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NEW

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Bovone North America

The Bovone Robotic System for automation of flat glass processing integrates dedicated warehouses for slab storage houses, two vertical edging machines, a vertical washing machine, and two or three multi-axis anthropomorphic robots that operate automatically. The slabs are handled by anthropomorphic robotic arms that position them inside the Bovone edging machines to carry out the various edge-processing stages. The robots can handle glass of different sizes and shapes. Booth #38037
336/637-8226, bovonorthamerica.com

02

DeMichele Group

The RhinoFab 9600 combo center brings storefront and curtain wall stock length fabrication and door blank prep into one automated machining center. The RhinoFab 9600 performs precise cutting, drilling, countersinking, routing, beveling and mitering of architectural aluminum stock up to 31 feet long; features an automated infeed conveyor for continuous operation; fabricates pressure plates and cover caps without special setup or adjustments; and swiftly preps door blanks with precise operations for various hardware. Booth #36037
480/985-4926, demichelegroup.com

03

Denver USA Inc.

The Denver Surface vertical CNC machining center by Denver USA offers fast and accurate drilling, milling and countersinking on already edged glass. The standard version features double servo-ventilated electrospindles with an ISO 40 MAS-ARC connection, 7.8 kilowatts of power, 10,000 revolutions per minute, and a double linear automatic tool magazine with 22 total positions, with 12 front and 10 rear positions. The machine is equipped with a numerical control OSAI Open Smart Series for 6 axes management. Booth #20059
336/250-6590, denverusamachinery.com



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The CleanCut Series, including models for cutting and deletion, features enhanced speed, updated technical features, and increased throughput, with an optional cullet system available in three unique configurations.



ROBOFLOW™ PASS THROUGH SYSTEM

The RoboFlow Pass Through streamlines the process from welding to cleaning with robotic precision, reducing cycle times, labor, and enhancing window quality through automated cleaning and fabrication.



CUTTING SMARTER, CLEANING BETTER.

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Enhance your production efficiency and product quality with the **CleanCut Series**, offering superior cutting and deletion capabilities with customizable configurations, and the **RoboFlow Pass Through**, streamlining the process from welding to automated cleaning, reducing labor and cycle times for optimal performance. **Come see the CleanCut Series in action at GlassBuild America in Dallas, Texas at booth #12037.**



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Glenwillow, OH 44139
330-963-5401



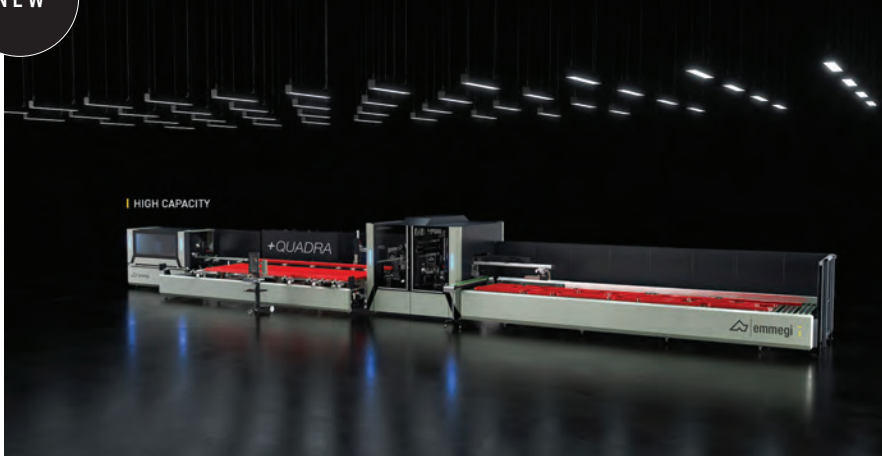
RoboFlow™ Pass Through



CleanCut™ Series



NEW



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03



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Emmegi USA Inc.

The + Quadra machining center by Emmegi USA features up to 20 CNC axes, designed to perform cutting, milling and drilling operations, including head and tail, on aluminum and light alloy profiles. A configurable line with modular solutions and custom packages for common applications in window and doors, architecture and industry, the line includes an automatic feeding magazine from which the profile is picked up and transferred to the operating section. Booth #25037
201/935-0200, emmegi.com

02

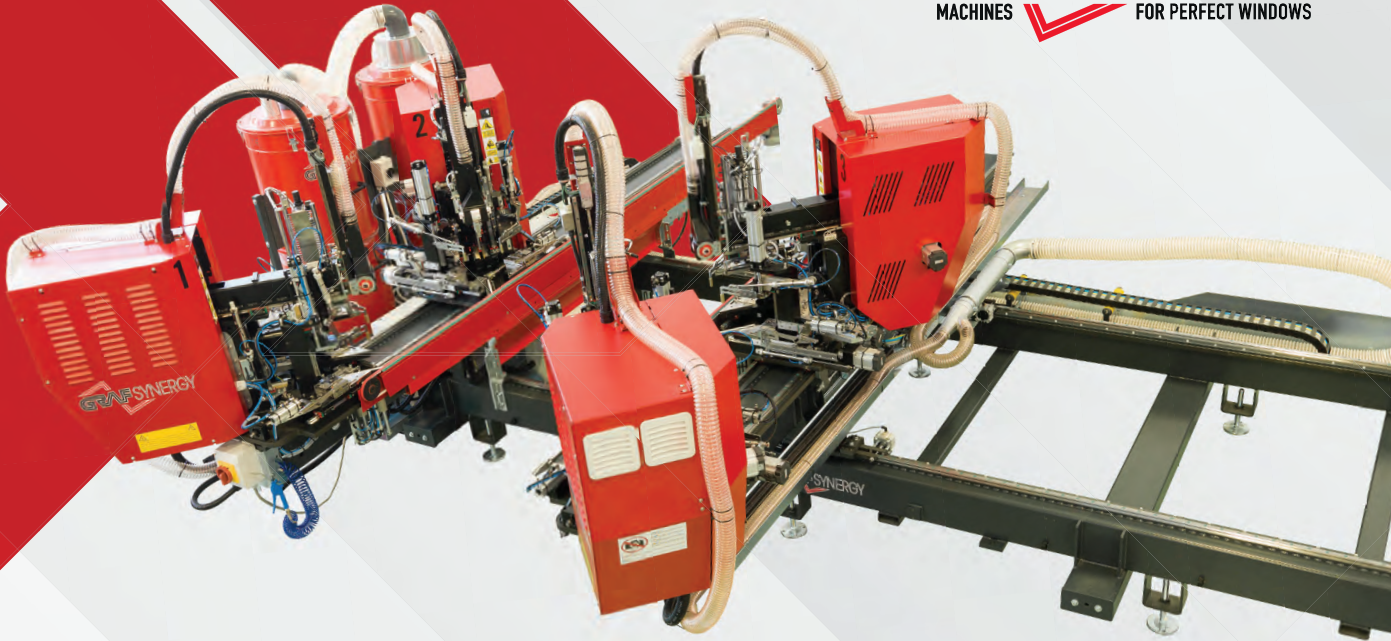
Erdman Automation Corp. / FlexScreen

Erdman Automation Corp. has partnered with FlexScreen to create an automated, high-efficiency line that allows window manufacturers to produce FlexScreen for less than they can make standard aluminum window screens. Booth #43037
763/389-9475, erdmanautomation.com

03

FlexScreen

FlexScreen worked with Erdman Automation Corp. to design and build an almost fully automated manufacturing line for FlexScreen. What used to take an entire production crew can now be done with four people in less than 1,500 square feet, producing at a rate of four screens per minute. For smaller companies that may find the full line cost-prohibitive, the company created the FS600. This smaller, slightly less automated version can produce from 100 to 600 FlexScreens per shift. Booth #43037
888/983-3539, flexscreen.com



SL4FF EVO

THE FIRST PVC SEAMLESS WELDER IN THE WORLD
WINNER OF THE AWARD for "MOST INNOVATIVE MACHINE 2023"
by Window+Door magazine.

The SL4FF EVO is the only welder that does NOT NEED corner cleaning and it's the only welder that can weld your HYBRID pvc windows with the aluminum cover on.

AVAILABLE for testing and demo in our SHOWROOM IN WOODBRIDGE, ONTARIO

V-Perfect is the first and only technology in the world that eliminated the welding seams at the corners to create aesthetically perfect PVC windows.

There's no need any more for corner cleaning or additional manual touch-up: from welding to assembly, even for painted or foiled profiles. Less space needed, higher efficiency, improved productivity.

V-Perfect is a patented technology and a registered trademark of GRAF Synergy S.r.l.

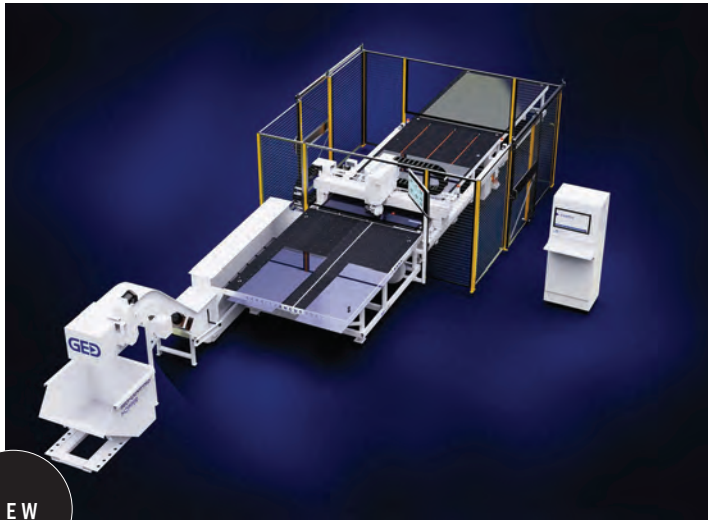
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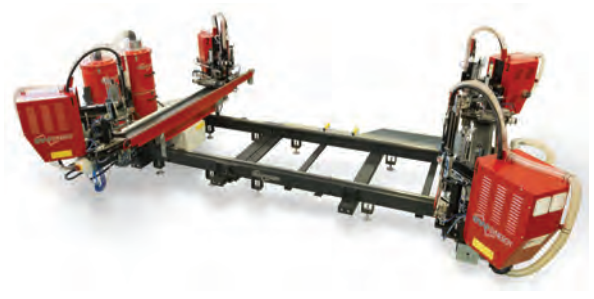


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Forel SpA / Forel North America

Forel's High-Speed Flexible Spacer IG line offers both speed and accuracy to produce high-quality insulating glass units. The line can produce insulating glass units up to 78 inches by 98 inches in size, with a maximum weight load of up to 135 pounds per foot, while minimizing the overall factory footprint. With multiple solutions that optimize existing technology, the high-speed IG line is a strategic choice for manufacturers looking to prioritize production output while still requiring high accuracy and a quality finished product. Booth #38047
651/357-8762, forelspa.com

02

GED Integrated Solutions Inc.

The CleanCut 1700 and 1800 Series glass cullet system by GED Integrated Solutions Inc. offers enhanced speed, updated technical features and increased throughput while offering manufacturers versatile options for glass production. The glass cullet system—a high-speed glass fragmentation solution—can be integrated seamlessly with existing glass-cutting equipment like the CleanCut Series. Engineered to enhance productivity, minimize waste and optimize safety in glass and manufacturing environments, this combined system provides a comprehensive, efficient solution for modern glass production needs. Booth #12037
440/600-8605, gedusa.com

03

Graf Industries Inc.

The SL4FF EVO seamless welder by Graf Industries Inc. features V-Perfect technology and eliminates the welding seam from the corner, providing PVC windows of uniform quality. It allows welding of profiles coated with any type of film or foil such as anodized aluminum, painted aluminum, painted PVC, or PVC covered with natural wood or acrylic. There is no cleaning or touch up needed after welding, and only one operator is required to load the profiles. Booth #34037
365/650-3131, grafindustriesinc.com

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See us at GlassBuild America, booth 48051.

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Haffner Machinery

The Autoscreen SAC-845/55 automatic screen mesh and spline insertion machine automates the application of screen mesh and spline to a pre-assembled screen frame. The estimated typical cycle time for an 18- by 18-inch window screen frame is approximately 35 seconds, including all handling. Patio doors measuring up to 48 by 96 inches are processed by the larger SAC-855 Autoscreen, taking approximately 1 minute and 20 seconds to complete, including handling. Booth #18037
514/826-3620, haffnerusa.us

02

Hegla Corp.

With plant integration of process equipment and software, Hegla can provide the equipment as well as the software to fully integrate new and existing production equipment—from process planning to automated loading, cutting, breakout, sorting and packing. Hegla software can also automatically feed subsequent processes and tracking in real-time throughout a facility to help optimize process utilization and efficiency. Booth #38024
404/763-9700, hegla.com

03

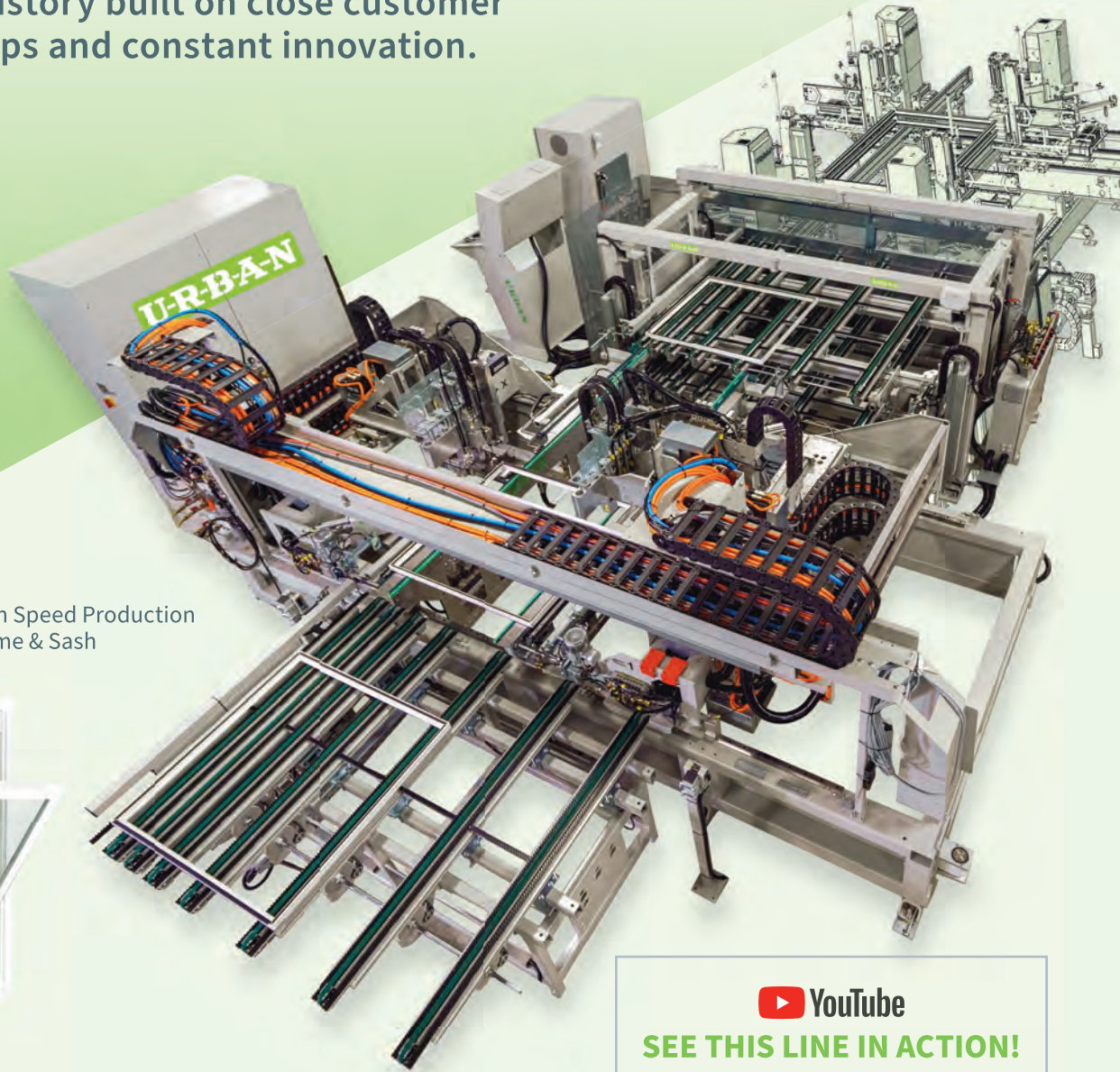
HHH Equipment Resources

The SM2500-4 automatic 4-edge horizontal glass seamer by HHH Equipment Resources is designed to produce precision chamfers on all four glass edges, offering time-saving automation. This machine automatically detects the size, width, thickness and position of the glass. It features a configuration with three beams and four grinding heads, an optional edge deletion function and an intuitive machine interface. Controlled by a servo motor system, it is ideal for architectural glass, doors, windows and insulating glass. Booth #27037
800/234-1982, Salemftg.com

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Machinery for Frame & Sash



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See us at GlassBuild America, booth 52046.

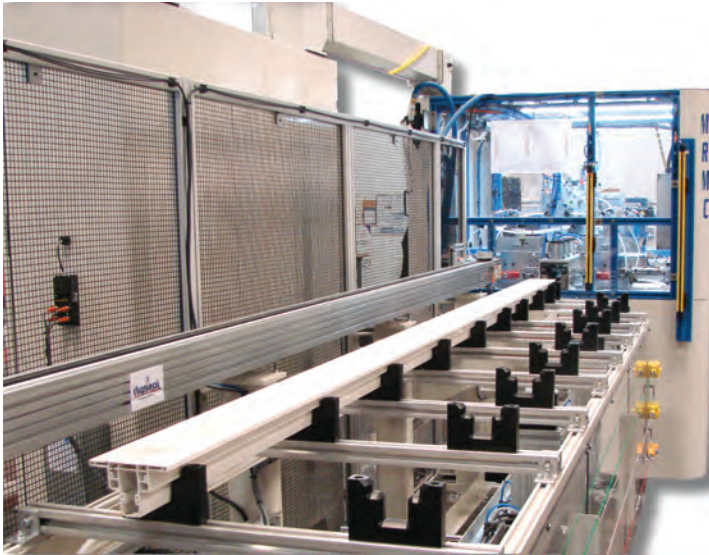
urban-machinery.com

1-800-263-4216

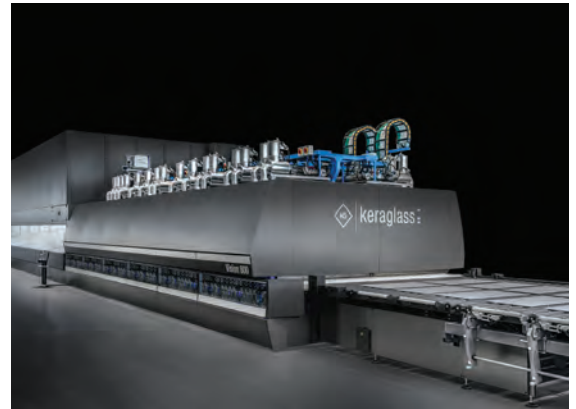
U-R-B-A-N

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Joseph Machine Co.

The MRMC Machining Center can load and index material, fabricate lock dimples and holes, balance fabs, nite latch routes, and more while also cutting to length and coping the ends of the profiles. With this product, companies can reduce scrap, improve part quality and ensure worker safety while increasing productivity. Booth #48037
717/432-3442, josephmachine.com

02

Keraglass Srl

The Vision 800 oscillating tempering furnace by Keraglass is based on a high-pressure blowing system inside the heating chamber, preheating air to 700 degrees Celsius. The furnace is ideal for providing custom-made solutions for medium- to large-size companies dealing in architectural glass. A graphical interface supervision system, with a large touch-screen monitor, allows total control of the furnace and continuously displays the heating cycle and all the control tools installed in the furnace. It includes a power consumption monitoring system. Booth #40036
+(39) 0522-9930-27, keraglass.com

03

Lattuada North America

Lattuada's TLR 11 AV C PC H85 is a fully automatic, 11-wheel mitering machine equipped with the company's A-WR system that offers diamond and resin wheels, automatic pre-setting, polishing wheels, and automatic wear recovery. An i-AL system allows automatic adjustment of the machine's parameters based on the glass thickness. It is also equipped with a motorized adjustable infeed conveyor, digital ammeters, an automatic alert system for wear on the polishing wheels, and teleservice. Booth #29037
567/249-4486, lattuada-na.com



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LiteSentry – Softsolution

The Osprey 10 advance glass quality inspection system features optical technology that measures all forms of distortion. The high-performing system meets and exceeds the growing requirements of architects and glass suppliers, including mandated distortion and anisotropy measurements. Innovative optical technology delivers real-time, online, complete, precise and accurate inspections guaranteeing quality while saving time and costs. Booth #47019

507/645-2600, glassquality.com

02

Mappi America Inc.

The ATS 4.0 Series furnaces all contain all Mappi technology. The ATS 4.0 comes in dimensions of 1,500 by 3,800 millimeters, 3,300 by 6,000 mm, as well as customizable sizes. The ATS 4.0 Series tempers glass with high optical and flatness standards. And thanks to a collaboration with Siemens, Mappi machines are recognized as “powered by Siemens,” meaning they are ready to implement all MindSphere applications, with full integration between the furnace and all production processes. Booth #29025

336/257-9651, mappi.it

03

Mecal USA

The MC 316 Fabcenter automated production line by Mecal is an advanced manufacturing cell, sawing and machining line, for aluminum and PVC windows and doors, or similar extrusions. Consisting of a horizontal loading table with user-definable partitions, the processing unit contains a 3-axis sawing head and 6-spindle—with an option for 8—machining element with 360-degree rotation of the tool-holding frame. A material rotation axis on the gripper to add machining capability is optional. Booth #11037

574/520-1871, mecalusa.com



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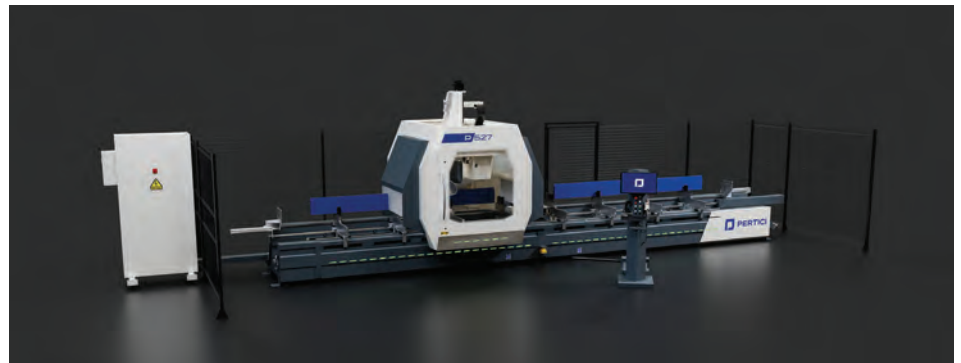


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Oz Machine

The Alcor-II C 10-axis, CNC-controlled, profile machining and cutting center by Oz Machine can perform all-in-one cutting, milling, drain channel opening, punching and marking operations on four surfaces of profiles, as well as special non-standard operations on different profiles. Features include servo-controlled cutting and rotation axis, automatic positioning at all degrees—between 30 and 150—pneumatic holder robot with servo-axis control and manual adjustment feature for accurate positioning of profiles. Booth #47047
561/808-9354, ozmachineusa.com

02

Panther Pro Tools

The Scratch Away Saw360 by Panther Pro Tools allows high-precision polishing with no spatters. The Saw360 is equipped with two support legs that form a tripod together with the polishing head. This ensures a greater degree of stability for horizontal and vertical positioned glass, which is especially necessary when polishing convex and concave glass. The Scratch Away Saw360 is always parallel to the window, preventing additional damage. Booth #11048
940/648-3305, panther-pro.com

03

Pertici North America

The P527 Premium Plus CNC machining center with five controlled axes performs milling, drilling, rigid threading, cutting and end milling operations on bars or workpieces in aluminum, PVC, light alloys and steel. Two machining center versions are available, 7 and 9 meters of machining length, with two different working modes—a single working area or the pendulum mode with two independent working areas offering customized solutions. The machine has a 120-meter-per-minute X-axis that improves the cycle. Booth #15023
574/210-9526, perticinorthamerica.com

PRO-LINE

Automation Systems Ltd.

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booth 14057.

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NEW



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Quattrolifts USA Ltd.

The Vector 600-1320 MP glazing robotic lifter by Quattrolifts includes a vacuum head, and a hydraulic winch with jib and fork tynes to lift pallets. All attachments have the capacity to lift up to 1,320 pounds. It is all-hydraulic for durability and reliability and can work in cold environments. With no steering handle, the Vector 600 MP is driven and steered by wireless remote control, allowing the operator to position themselves safely while driving and operating. Booth #30025

+(61) 4115-9180-7, quattrolifts.com

02

SHM Stegherr & KPS Tool & Die

The KSF-2E CNC cross joint milling machine fully automates the manufacture and complete processing of quality cross joints and grilles in the series production of glazing bars windows and doors. With up to eight aggregates, the machine produces cross joints in diverse executions and sizes from wood, aluminum, MDF or PVC bars, and processes all components of a glazing bar grille. It is available in customized executions with special aggregates and in special execution for the manufacture of historic cross joints for authentic restoration jobs. Booth #15048

499/402-5010, shm-stegherr.com

03

Sturtz Machinery Inc.

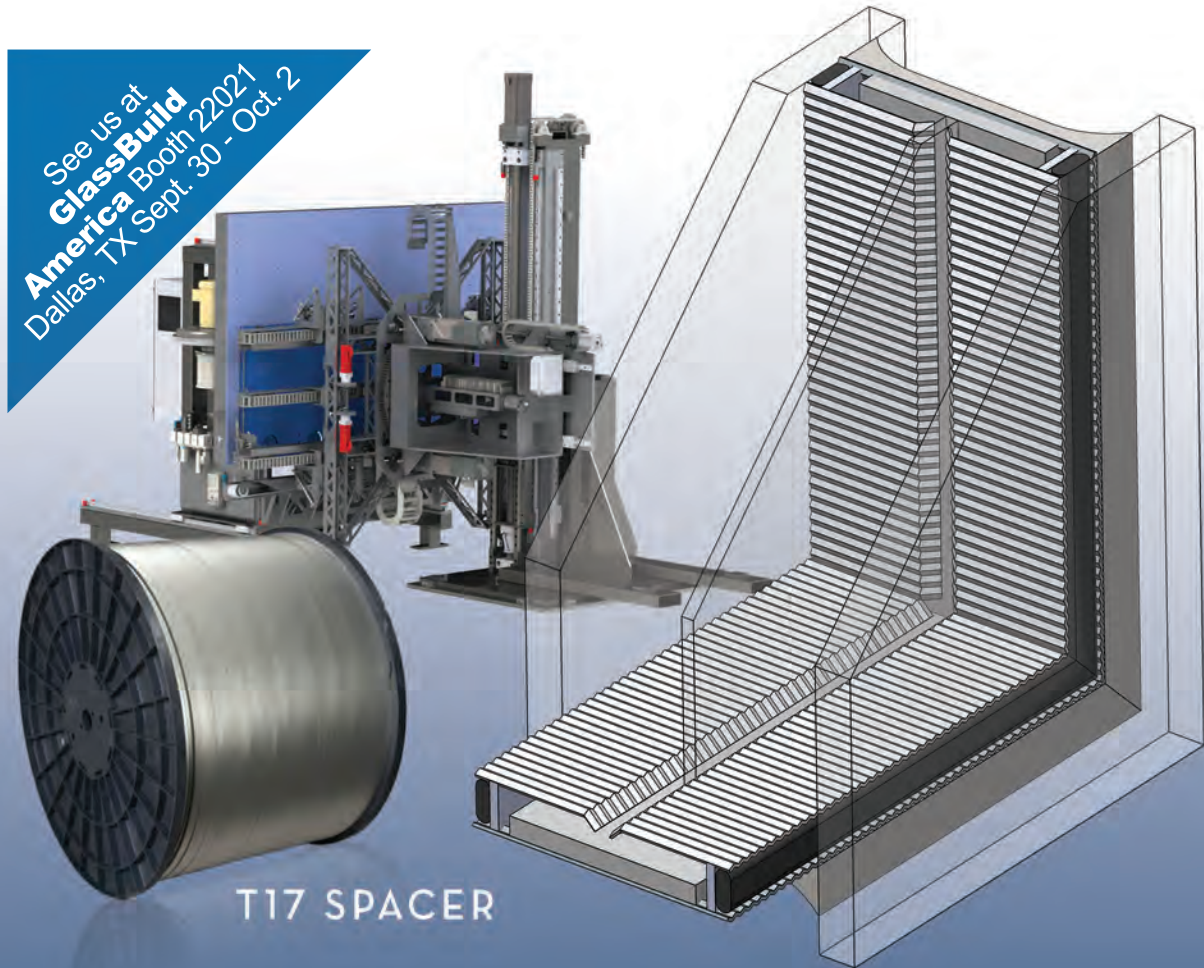
Sturtz Machinery Inc.'s SMI-HSM-30/25-Turbo-CL ContourLine welder features seamless welding on visible surfaces of a frame or sash. The company's process eliminates the need for cleaning visible surfaces, as well as the need to touch up corners of painted or laminated windows. This is accomplished without sacrificing weld strength. Booth #41037

330/405-0444, sturtz.com

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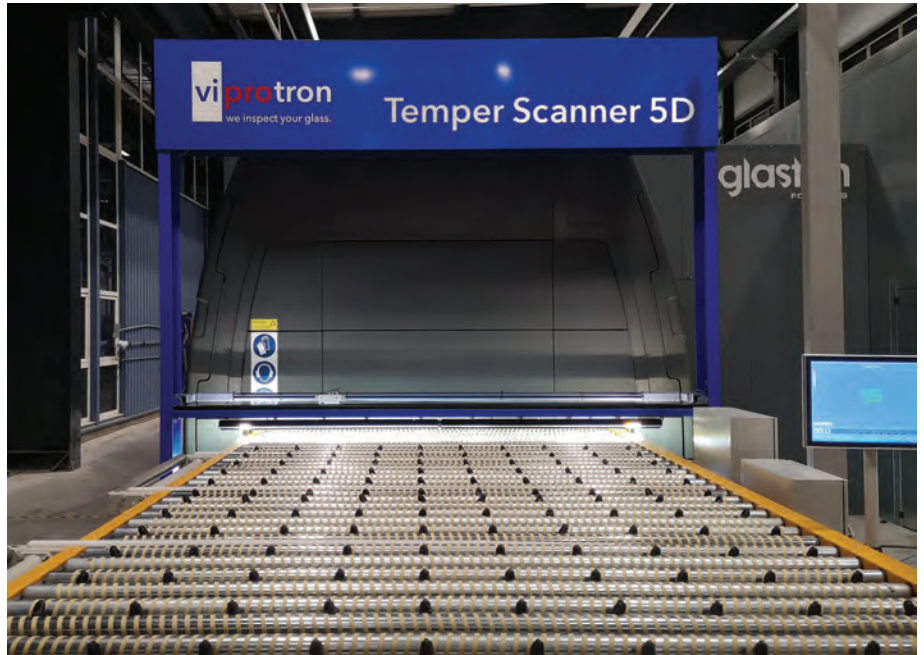


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SynergX Technologies Inc.

The SurfX Glass inspection system by SynergX is a fully automated inline inspection system for flat glass panels, designed for a wide range of glass manufacturing applications. The SurfX Glass scanner inspects and finds defects in flat glass reliably, minimizing both human inspection and potential liability, and helping companies optimize production lines. The SurfX inspects a range of glass types—from bird safety glass, vacuum insulating glass, insulating glass units, and laminated, tempered, and annealed—to smart glass and solar.

Booth #14050

450/978-1240, synergx.com

02

TAKA-WPR

The Strato profile wrapping machine by TAKA-WPR increases productivity and reduces set-up times in combination with a fully automatic process control that provides the safety required for high-quality production. The Strato wrapping machine for PVC and aluminum window profiles offers built-in options, with optional features that can be integrated to reduce set-up times and increase productivity. It also offers reduced consumption of primer and glue with an overall reduction in waste. Booth #31051

973/650-3232, wraptak.com

03

Viprotion North America Inc.

Viprotion's Temper Scanner 5D is a complete tempering line measurement system that uses True Edge technology. It scans for all distortion and measures from edge to edge, detecting anisotropy, white haze, scratches and coating defects. Equipped with up to five different inspection channels, this modular scanner combines state-of-the-art technology from five different scanners into one device. The Temper Scanner measures all distortions at the exit of a tempering furnace. Booth #30018

313/384-3855, viprotion.de/en

VSL-A



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NEW



Winpro

The Winpro Screen Express System automates the manual process of spline insertion on window screens, raising the bar on productivity, efficiency and cost savings. By automating a difficult and manual process, the Winpro Screen Express ends repetitive motion injuries often experienced by workers in the window fabrication industry. Less labor intensive than a traditional manual process, the production of more high-quality screens per hour is possible without the normal costly labor.

Booth #51057

216/292-4460, formtekgroup.com/winpro

NEW



Wood's Powr-Grip Co.

The MRPT16 Lifter Series manual rotator power tilter by Wood's Powr-Grip Co. simplifies the installation of jumbo lites, curtain wall sections and more. With a standard capacity of 2,800 pounds, the rotator-tilter features Intelli-Grip technology for reliable monitoring of power and vacuum systems, remote control that functions at up to 250 feet away, an optional integrated counter-balancer, and a load-support safety sensor that measures suspended weight and warns of unsupported load release.

Booth #48027

406/235-1978, wpg.com

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NEW



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Acme Window Hardware

The EUH window hardware system by Acme Window Hardware is tested based on the AAMA 910-16 standard of voluntary life cycle specifications and test methods for architectural class windows, with 20,000 full open and close cycles. The test window, sized at 83.86 inches wide by 71.85 inches high with a sash weight of 155 pounds, performed sufficiently. Booth #53093 905/282-1588, acmehardware.ca

02

American Renolit Corp.

Renolit Exofol FX exterior film is designed to be technically advanced and has a unique formulation. The company offers a 20-year warranty on the product, which covers the whole range of the product in any climate zone. Booth #25017 616/581-2156, renolit.com/exteriorsolutions/us

03

AmesburyTruth

The Maxim HP hinge manages increased load capacities while reducing operational friction on casement windows. Sash weights up to 200 pounds are possible when combined with select Encore operators. The hinge fits into the same $\frac{7}{16}$ -inch profile cavity as the standard Maxim hinge and features a matching track mount hole pattern to the 10-inch hinge. The hinge also has a stainless-steel clip stud to reduce wear combined with track coating and a slide shoe to further reduce operating forces. Booth #27027 800/866-7884, amesburytruth.com

04



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NEW

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04

Anthony Innovations LLC

The 1000 Quad Series door roller by Anthony Innovations handles larger and heavier doors with ease. With an 880-pound-panel load capacity—440 pounds per roller—the door roller is engineered for strength and durability. The main housing ensures structural integrity, while the dual-layer bogie carriage balances load distribution for smooth and effortless panel operation. Precision bearing components minimize operating force, providing a seamless and whisper-quiet glide. Additionally, the increased screw pitch makes adjustments a breeze. Booth #23027
214/702-4397, anthonygroup.net

05

Ashton Industrial

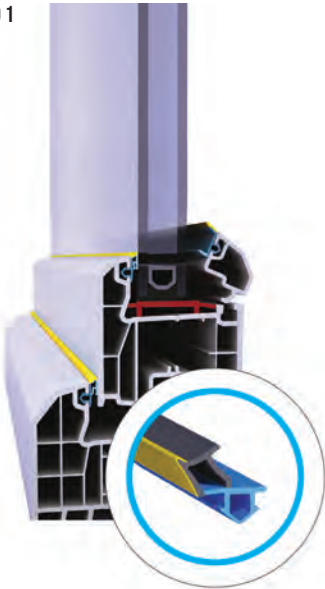
The Spartan is designed to apply pressure-sensitive protective film, bubble- and crease-free, to glass and mirrors, stainless steel, aluminum, acrylic and most other flat sheet materials. Available in single- or double-sided versions, manual operator or motor-driven, material thickness from 0.3 to 30 millimeters, and models for sheet widths of up to 650 mm, 1,600 mm and 2,000 mm. It is suitable for a wide range of pressure-sensitive films. Booth #49051
825/440-5991, ashton-industrial.com

06

Bridgeport Worldwide

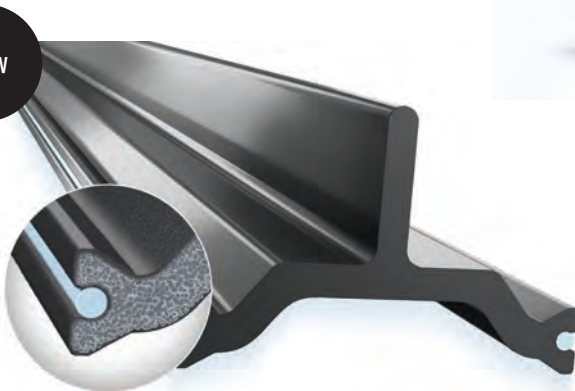
At 18 millimeters high, the System One Pivot for thinner profiles is less than half the height of the previous model, allowing it to fit into a 1-inch profile. This free-spinning pivot hinge can handle a 1,100-pound door, fits in the palm of the hand and is less than ¾ inch high. Only 32 mm wide, the new hinge body fits comfortably in any 1-¾-inch-thick pivot door regardless of size and material. Booth #11014
800/362-1484, bridgeportworldwide.com

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Conta North America

The CNT Slip Coat product for window gaskets by Conta North America is 15% to 20% lighter. The slippery outer-coating technology makes it dust and dirt repellent, waterproof, and easy to clean with no folding and shrinking on the profile due to a newly developed hard part. Booth #52072
470/760-4441, contausa.com

02

Ensinger Inc. – insulbar

The insulbar LI insulating profile is now available in North America. Compared with standard profiles made from solid polyamide, the lambda value of insulbar LI is improved by 30% through a manufacturing process in which the polyamide material is foamed during extrusion. Existing window systems can be upgraded seamlessly with insulbar LI, requiring no system or process changes, and the same visual appeal and quality as traditional polyamide is maintained. Booth #26002
856/434-2947, insulbar.com

03

Fentro Hardware Systems

Fentro will exhibit its dual-action, tilt-turn window hardware by Siegenia, which is designed for higher security, simplified assembly and enhanced quality. The product creates end-user versatility through effective ventilation and opening options. Booth #54073
204/822-1405, fentrohardware.com



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01

NEW



02



01

Fenzi North America

The Butylver TPS is a solvent-free, poly-isobutylene spacer capable of forming chemical bonds with glass surfaces. Designed to seamlessly integrate with all TPS applicators, this thermoplastic spacer streamlines the production process of structural and standard insulating glass units, elevating warm-edge performance and enabling high-level industrial automation. Crafted from a single component poly-isobutylene base with integrated desiccants, Butylver TPS ensures precise adhesion, minimal permeability and exceptional stability—up to 20-millimeter cavity—for contemporary IG applications. Booth #45037
416/674-3831, fenzi-na.com

NOT PICTURED

Follmann Inc.

Follman Inc. is expanding its reach in the United States with the company's adhesive solutions. Follmann prioritizes sustainability in its operations, and continually strives to develop eco-friendly products and to implement sustainable practices. Through rigorous quality control measures and cutting-edge technology, the company delivers adhesives that exceed industry standards. Follmann provides tailor-made adhesive solutions and collaborates closely with clients to develop custom formulations that precisely meet their specific requirements. Booth #32053
229/947-1401, follmannusa.com

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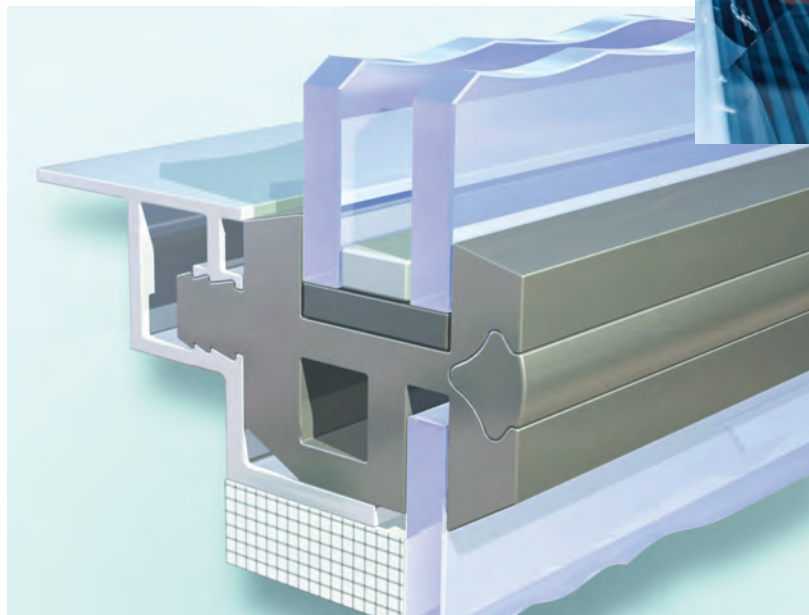
Glazelock Inc.

Invented by a window installer to simplify the use of multiple shims in a window installation, Glazelock's interlocking structural plastic shims have easy placement with collapsible locking mechanisms. Interlocking shims reduce material, time and labor costs. Made out of high-impact polystyrene, these interlocking shims will not rot, shrink or swell. Booth #51106
815/935-5396, glazelockshims.com

NEW



03



04

NOT PICTURED

GPI Group

GPI Group's drive-in door sweeps are a simple and effective way to decrease leaks and provide a barrier against outside elements. The door sweeps with weeping back pads have wrap-around, flexible PVC on the exterior to improve seal and strength. GPI's weep backing pads block water and prevent moisture from passing under the door edge where the mounting barbs are removed to allow the sweep to pass under the door stile. This design is ready to install. Booth #30017
404/217-3900, gpigroup.us

03

Griffith Rubber Mills

Griffith Rubber Mills' Stanlock architectural glazing gasket systems, a neoprene gasket system used in building construction, are available for windows in steel or concrete frames, as well as concrete expansion joints. The Stanlock gasket system features a contemporary design, reduced installation and maintenance cost, protection from rain and condensation, noise and vibration control, and deflection performance. Booth #48081
503/546-8132, griffithrubber.com

04

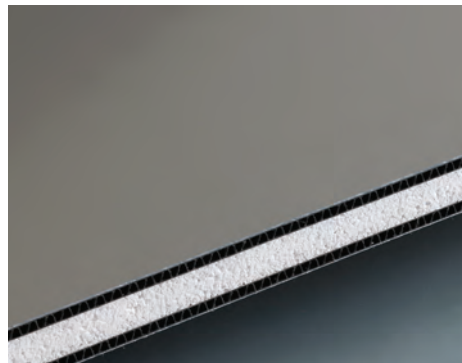
Interlayer Solutions Inc.

Interlayer Solutions' EVALayer thermo-set EVA film offers numerous laminated glass possibilities. It can be used in many applications, including standard clear laminated glass, decorative glass and glazing, high-impact-resistant glass, exterior open-edge laminated glass, and more. Booth #14027
514/326-4003, interlayersolutions.com

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NEW

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Kich Architectural Product Pvt

Kich stainless-steel entrance door pull handles for glass and wooden doors offer high corrosion resistance and durability for external environments in customized designs. Made of 304 and 316 stainless steel with concealed mounting, options include round, square and rectangular tubular pull handles in 90 and 45 degrees and solid legs, with a tube thickness of 1.2 to 1.5 millimeters and a length of 150 to 2,400 mm. Booth #53072

+(91) 8735-0136-38, kichindia.com

02

Lamatek Inc.

The SmartBlox 2.0 setting blocks by Lamatek are an 85 durometer, elastomeric material with no harmful phthalates that flexibly cushions insulating glass units and supports dead load. Installed between the window sash and IGU to protect the glass from impacts and fractures, and protect the glazing bead integrity, SmartBlox 2.0 is compatible with all glazing sealants and systems where shims may come in contact with PIB in spacers. Booth #12004

800/526-2835, lamatek.com

03

Laminators Inc.

Thermolite glazing panels are constructed with an insulating foam core sandwiched between two corrugated stabilizers and finished aluminum sheets. Available in smooth or stucco-embossed finishes in a variety of colors, Thermolite panels are designed to easily fit into any standard or custom glazing system. In addition to the standard flat Thermolite panel, fabricated options are now available to provide additional R-value, aesthetics and hairline joints between panels. Booth #25014

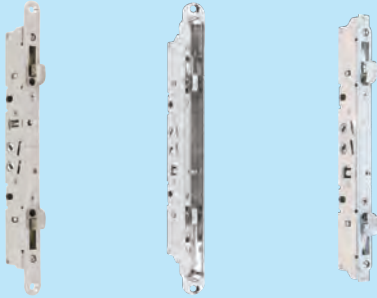
215/703-5124, laminatorsinc.com

Sliding Door Hardware

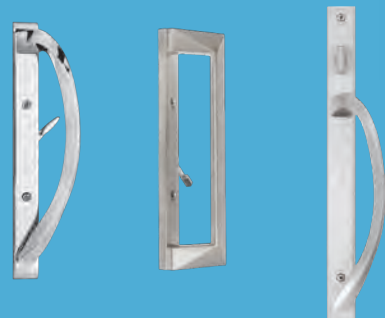


Rockwell Security Inc

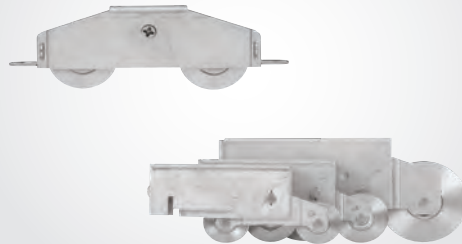
Dual Point Locks



Door Handles



Rollers



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NEW

01



01

Lusso Coating

Lusso Coating Solution's glass coating technology and application process delivers tangible benefits for both the environment and building occupants. By significantly reducing energy consumption and mitigating carbon footprints, the company's coatings contribute to a more sustainable future. Its glass coating is specifically engineered to combat excessive heat buildup by minimizing infrared rays, resulting in lower indoor temperatures and enhanced comfort. It effectively shields against harmful UV rays and eliminates bothersome condensation.

Booth #20053

+(81) 9085-3450-44, lusso.group

NOT PICTURED

Nova Plastech Inc.

Nova Plastech offers a variety of materials to create door jambs, sills and transition pieces. These products not only look like wood, but are waterproof, durable and don't fade like natural wood. There are many sizes and types available, including white, and a thinner, hollowed-out version. Booth #12003

514/800-0858, novaplastech.com

02



02

NuCoat North America LLC

The VL 24 Series of coatings for windows and doors by NuCoat North America meet the AAMA 615-20 standard for vinyl/plastic components, are independently verified, and offer reliability and longevity. The coatings are designed to be easily applied in one application with full coverage, processing efficiently in both vertical and horizontal settings. The low VOC and eco-conscious formula align with sustainability and environmental goals without sacrificing performance. Booth #22015

614/750-4002, nucoat.com

NEW



03



04

03

Ozone

Ozone's solutions serve architects, builders, specifiers and homeowners, offering comprehensive hardware solutions for all architectural needs. Ozone specializes in a wide range of product production, including commercial door handles, railings, railing components, U-channels, kitchen slides and safes, tailored to meet specific customer and market requirements. Ozone manufactures a wide range of commercial door handles—for both wooden and glass doors—designed to American standards and available in various sizes, finishes and specifications from India. Booth #50013
+(91) 7428-7930-49, ozonehardware.com

NOT PICTURED

Pellucere Technologies

Advanced optical coatings by Pellucere Technologies, formerly CSD Nano Inc., serve a wide range of energy and industrial needs. Pellucere Technologies develops, tests and manufactures optical coatings and proprietary application systems, and its family of brands include MoreSun and Talus Dirt Rejection Technology. Booth #51096
770/871-8183, pellucere.com

04

Poly Extrusions

Glass glazing, spline, bug seal and plastic extrusions products by Poly Extrusions have been providing customers with custom plastic extrusion, plastic tubing, plastic profiles, and die creation and development for over 35 years. Poly Extrusion serves many different businesses and markets, including the window and door industry, with its qualified and experienced staff. Booth #23007
909/350-3111, polyextrusionsusa.com

NEW

01



02



03

01

PPG

PPG Duranar liquid coatings are available in solid, metallic and mica formulations that add durability to architectural metals and meet FGIA/AAMA 2605 performance specifications. Architects from Verse Design Los Angeles specified a metallic champagne in PPG Duranar liquid coating for the Thirty75 Tech project in Santa Clara, California. The color features mica flakes that shift color with changing light, viewing angles and louver rotation. The project has won more than 20 architectural awards. Booth #12021

800/258-6398, ppgmetalcoatings.com

02

Quanex

Quanex will exhibit its Ultimate Security Screen product. Screens made with Meshtec high-tensile technology deliver outstanding durability, standing up to pets and humans, providing consumers with a screen system that they can enjoy for an entire lifetime. All with the added benefits of securing the home against unwanted break-ins, insects and harmful UV rays. Booth #32021

740/439-6429, quanex.com

03

Roto North America

Roto North America's 9200 Series traditional sliding patio door handle is a blend of traditional craftsmanship and innovative design that provides a balance of style, security and innovation. Engineered to fit the standard three-hole milling, the handle incorporates an additional support hole for stability. The extended screw ports simplify the installation process, ensuring proper alignment every time. The 9200 Series is available in both keyed and non-keyed variants. Booth #43013

860/526-4996, rotonorthamerica.com



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RENOLIT EXOFOL FX

See us at GlassBuild America, booth 25017.



RENOLIT EXOFOL FX has a multi-layer construction that is totally unique in the industry

- The base layer is solid acrylic (PMMA) that utilizes Solar Shield Technology (SST)
- SST uses infra-red reflective pigments that reduce the overall heat build-up of the entire laminated system
- EXOFOL FX's two-layer protection consisting of PMMA/PVDF is ideal for superior resistance to the elements year round
- The exceptional performance of EXOFOL FX brings an industry leading warranty of up to 20 years

Diagram showing the structure of the exterior film RENOLIT EXOFOL FX



Ask us how we can help greatly improve your color process by switching to EXOFOL FX

- Excellent scratch/markings resistance during production and installation, no static issues, no chemical hazing and eliminates the need for protective film

RENOLIT'S EXOFOL FX film checks all the right boxes for your color offerings
Great performance, great color range – including multiple black offerings – and great availability

Contact us to find out more about this high-performance solution to set your products apart in the market!
exteriorsolutions.america@renolit.com

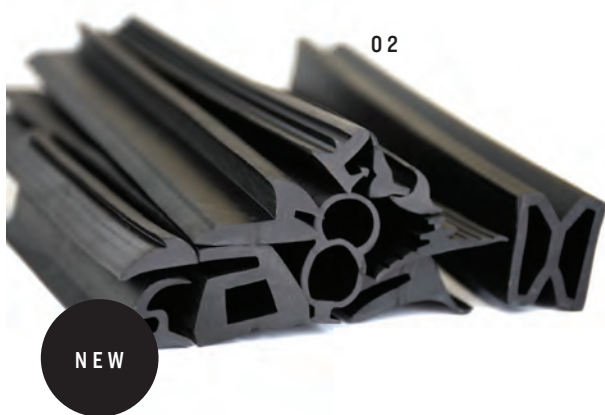
RENOLIT
Exterior
Solutions



01

NEW

03



02

NEW

01

Salem Fabrication Supplies

New glass-cutting solutions by Salem Fabrication Supplies include its TruCut cutting wheels and approved STM cutting fluids. The TruCut line of glass-cutting wheels are crafted with micro-infused tungsten carbide using CNC robots, ensuring durability and performance. The wheels deliver clean breakouts with minimal pressure, reducing scrap and rework. Salem's STM CUT-8 and STM CUT-14 cutting fluids are approved by Guardian and Vitro for all low-emissivity coatings. STM CUT-8 is a medium to medium-fast evaporative fluid ideal for the window industry, leaving minimal residue. Booth #27037
800/234-1982, saalemftg.com

02

Santopseal Rubber Corp.

Santopseal Rubber Corp. manufactures a wide range of custom rubber extrusions in the form of gaskets, and seals using Santoprene and many other rubber materials such as TPE, TPV, EPDM, neoprene and many others. The company's products have become an integral part of industrial sectors like construction, automotive, health care, food processing, marine, appliances, electronics and aerospace, among others. Booth #47079
412/444-1888, santopseal.com

03

Satinal SpA

Strato EVA glass interlayers by Satinal are processed from selected raw materials into a cast film that is then used to manufacture laminated safety glass. A thermosetting material, the Strato EVA film is different from thermoplastic PVB film, and creates three-dimensional bonds at a molecular level during the lamination process. Strato can be used for laminating safety glass for both architectural and interior design applications without any risk of de-lamination and yellowing over time. Booth #50025
+(39) 0318-7057-3, satinal.it



04

04

SEM Specialty Products

Weatherstripping seals and extrusions by SEM Specialty Products joins its range of textile and extruded plastic products. Customer and standard parts include PolyFab, woven pile, glazing seals and bulb seals. Booth #14004

585/643-2000, schlegel.com/sem-specialtyproducts

NEW



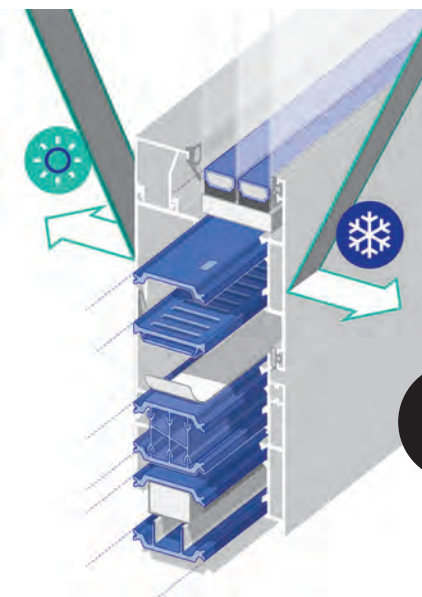
05

05

Simonswerk North America Inc.

Simonswerk's Verto is a self-closing pivot hinge system for doors. The hinges offer a clean design and are suitable for quick and easy installation in any environment. Designed for indoor and outdoor use, it has a load capacity up to 330 pounds for door widths up to 47 inches. The hydraulic hinge system includes adjustable closing speed and constant damping control. Booth #10027

262/472-9500, simonswerk.us



06

NEW

06

Technoform

Technoform's plastic, hybrid stainless-steel, warm-edge spacer and high-precision, polyamide-based insulating profiles improve the thermal performance and condensation resistance of façade, fenestration and cladding systems. Developed through customer collaboration and partnerships, Technoform's building envelope products boost the thermal performance of insulating glass, windows, doors, curtain wall, storefront and opaque façades. The relatively low cost and high performance of its components help building designs balance energy efficiency with occupant health and comfort without compromising aesthetics. Booth #11021

330/487-6600, technoform.us



NOT PICTURED

Wurth Construction Services

From fasteners to safety products, sealants and general tools, Wurth Construction Services offers a range of products. Booth #37011

561/275-3126, wurthindustry.com

Tedee Spzo

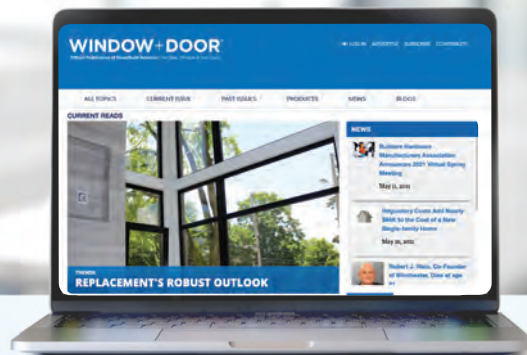
The Tedee Pro smart lock by Tedee easily controls multi-point door locks with a powerful mechanism of 2.0 Newton-meters of torque, ensuring smooth operation even with 12-bolt installations. Endurance tested for over 200,000 locking-unlocking cycles, the Tedee Pro smart lock offers long-lasting performance in an award-winning design. Booth #54074

+(48) 8840-8801-1, tedee.com

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glassmagazine.com
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01

01

A+W Software USA Inc.

The A+W Cantor Smart Companion transforms barcode scanning by leveraging smartphones and other smart devices in addition to traditional, expensive industrial scanners. Designed to enhance efficiency in the window, door and roller shutter industry, this app integrates with A+W Cantor ERP systems to streamline processes from goods receipt up until delivery. Its user-friendly interface and ability to run on both iOS and Android devices eliminate the need for specialized training. Booth #42011
847/948-9425, a-w.com



02

02

EDTM Inc.

The GC3200 Glass-Chek Elite measures the glass and air space thickness of a window and identifies the surface location and type of low-emissivity coating in the window. The Elite also can identify laminated glass and measure the inner-layer thickness of the lami itself. The graphical display shows a drawing of the profile of the window, labeling each glass surface. The GC3200 can store recent measurements in its memory to be reviewed later. Booth #19027
419/861-1030, edtm.com



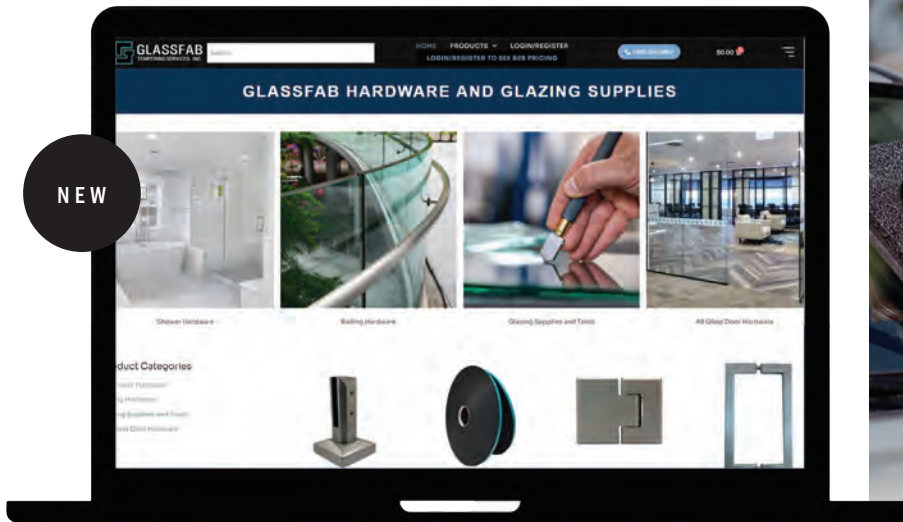
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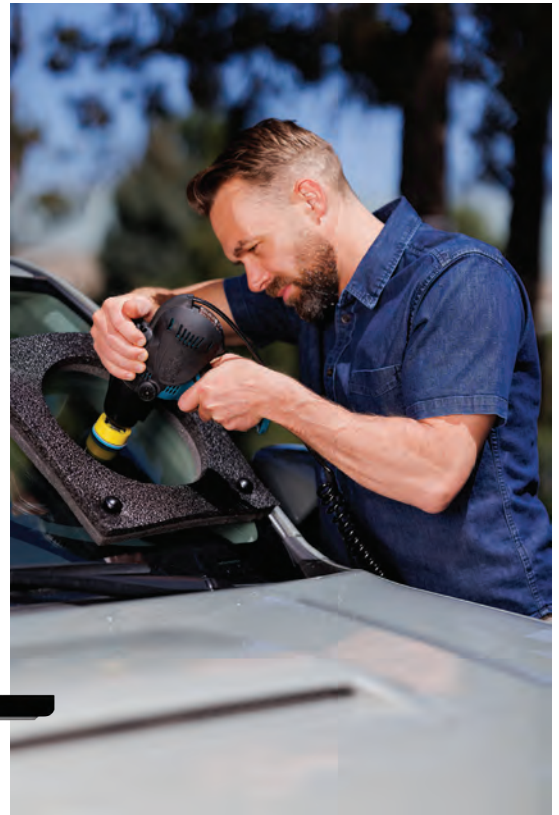
GDS Estimating

The WinBidPro v16 commercial glazing software by GDS Estimating is a Microsoft Windows application with cloud-based data and a CAD engine for drawing elevations, enabling quick material takeoffs for various job sizes. It supports exporting drawings for CAD software, project management software reports and cutting machines. With over 20 manufacturer catalogs to use in WinBidPro, each with frame and entrance configurations and full parts lists, the flexible software offers customizable data. Booth #29016.
858/538-4375, gdsestimating.com

04



05



06

04

Glassfab Tempering Services Inc.

Glassfab Tempering Services Inc. will showcase its Glassfab Hardware and Glazing Supplies, a new online store catering to the needs of professionals in the architectural glass industry. With the launch of glassfabhardware.com, Glassfab aims to fulfill the industry's demand for expedited service, and high-quality hardware, tools and safety equipment. Booth #54080
925/642-7809, glassfabusa.com

05

GlasWeld Systems Inc.

With the Gforce Max, distortion-free glass scratch removal is not only possible—it's also simple and fast. The Gforce Max can repair scratches on flat glass, auto glass and practically any type of glass. Booth #24015
541/388-1156, glasweld.com

06

LM Packaging

The 6-millimeter honeycomb cardboard door protection by LM Packaging is ideal for protecting doors on the construction site and avoiding managing temporary slabs. Lightweight and easy to install, the sturdy packaging absorbs shocks and prevents scratches and other damage. Adaptable to all doors, it also eliminates the need of temporary doors, and is an economical solution to preserve and extend the lifespan of installations. Booth #14048
418/234-7958, emballageglm.com

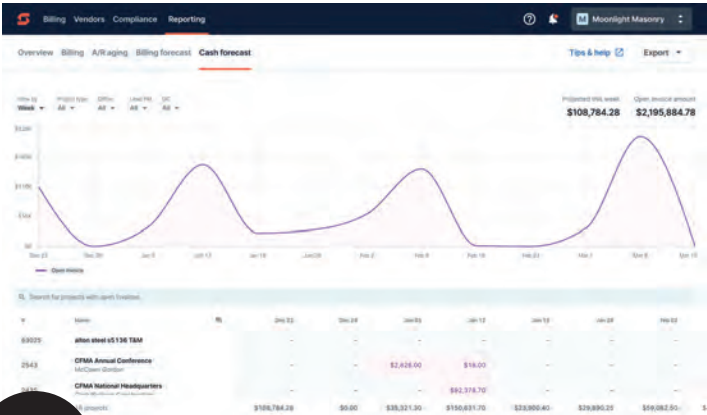


01

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Orgadata USA

The Logikal digital tool for estimating and project management software by Orgadata helps streamline business from the beginning, starting at sales, to the final produced product. Logikal software for storefronts, curtain walls, windows and doors offers a large database for profiles, fittings and accessories. It provides open interfaces for seamless connection to other systems such as CNC machine control and ERP software solutions. Expandable to meet individual needs, the company provides software support for users. Booth #42019 303/205-6394, orgadata.com



NEW

02

PMC Software

Providing lineal optimization for window manufacturers, the Linealmate software system by PMC Software generates optimal yields when cutting lineal material. When teamed with linear positioners, machining centers and automated welders, even greater accuracy and higher speeds are achieved. Manufacturers of all styles of windows are taking advantage of the speed, flexibility and simplicity of Linealmate software to minimize cutting waste, conserve manpower, and tighten control over production and inventory. Booth #42011 847/682-4684, pmcsoftware.com

03

Siteline

Billing and cash flow forecasting software by Siteline helps users run fast billing and cash forecasts to visualize outstanding backlog and long-term cash positions, visual and shareable billing projections, and siloed data from the entire billing workflow to run cash flow forecasts. Siteline software forecasts billing for a project along a front-loaded bell, standard bell or flat curve; identifies dips in backlog; and analyzes project and client data. Booth #39016 419/215-6096, siteline.com

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Low Friction Coating



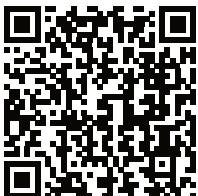
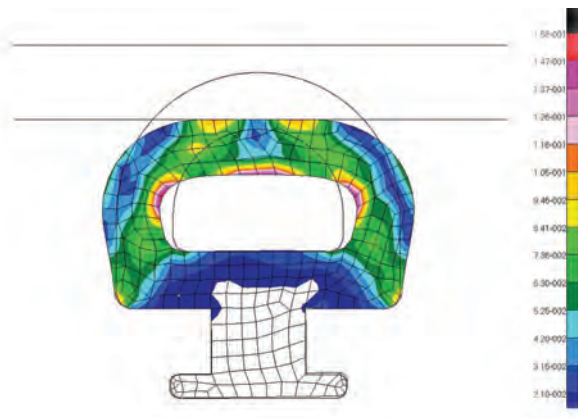
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The WDQ by WinDoor Quote is a web-based, mobile-responsive dealer portal that provides fast and accurate web-based quoting and manufacturing solutions for window and door manufacturers. Its mobile-responsive design, integrated with DocuSign, enables sales representatives to quote and sell projects at the customer's home, presenting a professional proposal in a single visit. Additionally, WDQ incorporates integrated credit card processing and ACH payments, allowing contracts to be quoted, signed and paid in one visit. Booth #46073
402/378-0122, windoorquote.com

NOT PICTURED

Winsys

Designed for fabrication facilities, Winsys software enables users to produce quality products on time and at a realistic price. Winsys helps managers schedule work better, balance workloads, and avoid backups and congestion, keeping machinery and personnel working at optimum levels. Winsys software helps window and door manufacturers target and achieve peak performance at all levels, while staying on the leading edge of technology with the latest in internal automation for financial, clerical and manufacturing facets. Booth #42011
847/682-4684, windflite.com



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EXHIBITOR LIST

Exhibitor list as of July 25. Visit GlassBuildAmerica.com for the most up-to-date listings.

Booth #	Company Name
42011	A+W Software USA Inc.
54090	A3 Glass Fabricator
51099	Accurate Perforating
35045	ACM Machinery Ltd.
53093	Acme Window Hardware
34010	Adfast
38017	Adhesives Research Inc.
53021	ADI Srl / IGP Inc.
13012	Advanced Architectural Products
32015	Advanced Screen Systems Inc.
52073	Agama Glass Technologies
54081	Aim Transportation Solutions
49076	Akarmak
54079	Alexco
17013	Alloy Fasteners Inc.
48006	AllYourHardware.com
50073	Alpgate
38012	Alumax Bath Enclosures / Hydro Extrusion USA LLC
12019	Aluminum and Glazing Lines

Booth #	Company Name
33053	aluplast
51090	Aluprof
15005	Aluproject LLC
31037	Aluro
25017	American Renolit Corp.
13009	American Safety Clothing
27027	AmesburyTruth
51072	Anchor Engineering Inc.
23027	Anthony Innovations LLC
15011	Arcadia Products LLC
28006	Archie Hardware North America
37019	Argon Filling Systems Inc.
23003	Argotec
41017	Arizona Shower Door Inc.
47077	Artifex Dr. Lohmann GmbH & Co.
23052	ASC Process Systems
20018	Ascentium Capital
49051	Ashton Industrial
10022	Assa Abloy (Schweiz) AG

Booth #	Company Name
36025	Assa Abloy Fenestration
36017	Assa Abloy Opening Solutions
10049	Athmer
14021	AutoMAK Assembly Inc.
13010	Axalta Coating Systems
14053	AXYZ Routers and WardJet Waterjets
23006	Azon USA Inc.
24009	Bailey Specialty Cranes & Aerials
38010	Banner Solutions
34045	Barberán SA
50037	Bavelloni America
54108	Beijing Human
49085	Beijing Chang Yi-He Automatic Equipment Manufacturing Co.
24053	Beijing MGM Glass Machinery Co.
46077	Benteler Maschinenbau GmbH
40016	Best Print Solution
48077	Better Vacuum Cups Inc.
20027	Billco Manufacturing Inc.

Booth #	Company Name
50091	BINAR – a Schmalz Company
49078	BioSeal Silicone
19013	Bisam Cephe Yapi Sistemleri San Ve Tic AS
17015	BizDog Payments
13011	Blue Star Glass
13055	Boehme-Kunststofftechnik
33010	Bohle Portals
12023	Boton Aluminum Co. (Qingdao)
52025	Bottero Flat Glass Inc.
38037	Bovone North America
54077	BR International Inc.
52057	Brick Wholesale Glass
11014	Bridgeport Worldwide
13049	Bromer Inc.
51073	Bron Tapes
15049	Burkle North America Inc.
53075	Business Pilot
53090	BVB Architectural Products
41025	C.R. Laurence Co.
23053	C.R. Onsrud Inc.
31016	C2A Longterm Inc.
22009	CAD-Plan North America Inc.
54102	Cal-Royal Products Inc.
15010	Cardinal Paint & Powder Inc.
51019	Casma – All Door Closers
48021	Casso-Solar Technologies LLC
50011	Certified Enameling Inc.
53068	CG Hardware LLC
40011	Chelsea Building Products Inc.

Booth #	Company Name
14009	Citadel Architectural Products
14011	Cline Aluminum Doors Inc.
25055	CMS North America Inc.
51086	CNBM International Corp.
29014	Coda Products Inc.
52103	Colour Alliance Inc.
47069	Combilift
51098	CompanyCam
52072	Conta North America
46023	Continental
20013	CoolTemper USA
23021	Cooper Standard ISG
33015	Coroplast Tape
46015	Creative Millwork of Ohio Inc.
13017	Crimsafe North America
26003	Cuhadaroglu Metal San Ve Paz AS
54091	Curtain Wall Design and Consulting Inc.
45025	Cyncly
25023	Deceuninck North America
53022	DeGorter Inc.
36037	DeMichele Group
20059	Denver USA Inc.
19019	DeSCo Architectural Inc.
27007	Deslauriers
50097	DFM Doors
51012	Diamant Srl
14008	Diamond Door & Architectural Metals
20037	Diamon-Fusion International
25005	Door & Window Market Magazine

Booth #	Company Name
29011	Door Controls USA
49007	dormakaba USA Inc.
10002	Dow
52091	Dr. Greiche
14054	DRM
12022	Edgeworks
19027	EDTM Inc.
14037	Elumatec North America Inc.
25037	Emmegi USA Inc.
12027	EnduroShield
14003	Engineered Custom Coatings
51102	Ennova Facades
26002	Ensinger Inc. – insulbar
43037	Erdman Automation Corp. / FlexScreen
48051	Ergo Robotic Solutions
47059	Ervin Inc.
14007	Ever Bright Hardware Co.
15008	Excel Engineering
10012	Excel Glass Systems
45019	F. Barkow Inc.
12019	Façade Studio
23015	Fapim SpA Hardware Mfg.
54018	Faraone
52102	Fenestration Canada
13059	Fenstek
54073	Fentro Hardware Systems
45037	Fenzi North America
15014	FG Glass
49080	FGE Solutions

Booth #	Company Name
45012	FHC The Glazing Supply Company
35053	Filtertech / US Centrifuge Systems
46083	Filtraglass
13018	FlexCost
15017	Flexijet North America
43037	FlexScreen
32053	Follmann Inc.
21037	Fom USA
38047	Forel SpA / Forel North America
38019	Fornax Door & Window Accessories
48072	Forster
51014	Fratelli Pezza SrL
42011	Friedman Corp.
13020	FrontLine Bldg. Products Inc.
51091	Future Glass
39011	Gardner Glass Products
47083	GCV Glass Machinery
29016	GDS Estimating
51021	GE.MA.TA SpA
10003	Gealan
12037	GED Integrated Solutions Inc.
47027	GGI General Glass International
52029	GH Italy SrL
51020	Glass Co.
20021	Glass Coatings and Concepts
37019	Glass Pro Inc.

Booth #	Company Name
21009	GlassBuild sales office
54080	Glassfab Tempering Services Inc.
48076	Glassline Corp.
28008	Glassopolis
52098	Glass-Technology International
32013	GlassTrax & Glaziers Online
48069	Glaston America Inc.
24015	GlasWeld Systems Inc.
51106	Glazelock Inc.
51101	Glazier Nation LLC
23004	Glazier Software
54101	Glaziers Consulting
50087	Goldstar Co.
28011	Gonzato Group
30017	GPI Group
21013	Grabo
34037	Graf Industries Inc.
10051	Great Lakes Fasteners
21012	Griffin Glass & Metal Werks Inc.
48081	Griffith Rubber Mills
21021	Groves Inc.
34027	Guardian Glass
14017	Gulf Rubber Industries LLC
53107	Guthrie Automation
13003	Gutmann North America
18025	H.B. Fuller
19059	HAECO

Booth #	Company Name
18037	Haffner Machinery
49077	Hangzhou Jinggong Machinery Co.
21059	Hanjiang
38011	Hans Building Material Technology
29010	Hardware and Glass Group Ltd.
15007	Hardware Everywhere
38024	Hegla Corp.
51105	Hercules Bros Trading Fze
49091	HMI
50103	Homewell Glass Products Inc.
51010	Horizon SrL
46072	Hot Melt Technologies Inc.
34012	Hydro Extrusion North America
23008	Hygrade Components
17023	IGE Glass Technologies Inc.
52070	Imperial Plastics
17009	Industry Pavilion - NGA / FGIA
15055	iNOEX LLC
52037	Integrated Automation Systems
31011	Interglass
14027	Interlayer Solutions Inc.
23037	Intermac America / Biesse America
47007	International Union of Painters and Allied Trades
26011	ISD Group USA Inc.
50007	Isoclima Specialty Glass / Global Security Glazing
52023	Italcarrrelli SrL

Booth #	Company Name
51006	Italian Trade Agency (ITA)
54069	Jansen America Inc.
11049	Jekko USA
53102	Jersey Glass
24010	Jeske Hardware Distributors
54083	JF Railing Inc.
51109	Jin Young Co.
50083	Jinan Lijiang Automation Equipment Co.
49081	Jinan Wondec Machinery Co.
27003	JLM Wholesale Inc.
21020	Joe's Refrigeration Inc. / Clean Room Solutions
37015	Jordahl USA Inc.
47037	Jordon Glass Machinery
48037	Joseph Machine Co.
17037	JRS Glass SrL / IGE
52068	Jura Films North America LLC
11055	Kaban Makina
26006	Kenwa Trading Corp.
40036	Keraglass SrL
16017	KeraJet + DipTech Machinery / IGE
23005	Keystone Certifications Inc.
53072	Kich Architectural Product Pvt Ltd.
25016	Kleiberit Adhesives USA Inc.
25007	KMR Research
47068	Koja USA Inc.
15048	KPS Tool

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12004	Lamatek Inc.
25014	Laminators Inc.
21053	Landglass Technology Co.
14005	Landmark Facade Solutions Inc.
24003	Larson Engineering Inc.
29037	Lattuada North America
13027	Leading Edge & Deltarack USA
52100	Lendkey
52076	Liaoning Alger Building Material Industrial Co.
11009	Linea Rossa
32037	Lisec America Inc.
47019	LiteSentry – Softsolution
14048	LM Packaging
53070	Loeffler Supply LLC
25011	LTC USA LLC
20053	Lusso Coating
54076	LynnCo Logistics
24002	M3 Glass Technologies
54099	MACO
51027	Macotec
19009	Main Stage
20020	Mainstreet
14052	Manufacturers Capital
39017	Mapes Panels LLC
29025	Mappi America Inc.
13014	Marine Fasteners Inc.
48057	Matodi

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22014	Maxest Industrial Inc.
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16009	McGrory Glass
23002	McKeegan Equipment
11037	Mecal USA
49013	Millet Glass Industry
48013	Moderno Porcelain Works
51023	Mole Moreschi SrL
24017	Monticelli
31019	MyGlassTruck
53081	NanaWall Systems Inc.
22012	North American Contractor Certification (NACC)
24006	North American Specialty Laminations
12003	Nova Plastech Inc.
30019	Novagard Solutions
35011	Novatech Group
22015	NuCoat North America LLC
14013	Nvoy Fire Rated Systems
18013	ODL Inc.
18052	Oemme SpA
11003	Ohio Rack Inc.
16003	Omni Cubed Inc.
33011	Omniglass SCT
47073	One Day Glass
52018	Optima SrL
25004	Orange Aluminum
20026	Orchard Lock Distributors

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47047	Oz Machine
50013	Ozone
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50019	Panda Windows & Doors
11048	Panther Pro Tools
20017	Paradigm
24005	Paramount Extrusions
50057	Pat Mooney Saws
22021	PDS IG LLC
54092	Pecora Corp.
51096	Pellucere Technologies
20045	Perfect Score Technologies
15023	Pertici North America
27015	PH Tech Inc.
42011	PMC Software
20009	Podcast studio
16004	Podium
23007	Poly Extrusions
14002	Polytronix Inc.
12021	PPG
15004	Privacy Glass Solutions
49006	Prodim USA
14057	Pro-Line Automation
22053	Protective Industrial Products
45077	Qatar Aluminium Extrusion Co.

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50079	Qingdao Panda Railing International Trading Co.
44019	Q-railing – North America
14012	Quality Glass Fabrication
32021	Quanex
30025	Quattrolifts USA Ltd.
47072	Quick Fabrication
18016	Raco Interiors
53069	Radisson Industries
51018	RCN Solutions Srl
50101	Recycle Services
39018	Reed Rubber Products
33014	Reliable Products / Ruskin
11005	Resource Recovery LLC
48068	Reynaers Aluminium
36011	Richelieu
28015	RiteScreen
47009	Rockwell Security Inc.
43013	Roto North America
32011	SAF – Southern Aluminum Finishing Co.
29019	Safty First Fire Rated Glazing Solutions
27037	Salem Fabrication Supplies / HHH Equipment Resources
47079	Santopseal Rubber Corp.
50025	Satinal SpA
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53022	Schiatti Angelo Srl
18012	Schilling Inc.

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50086	SGU Glass Technologies Co.
35017	Sherwin-Williams
51082	ShiXing Glass (Quanzhou) Co.
15048	SHM Stegherr & KPS Tool & Die
21052	Shoham Machinery Ltd.
16006	Sika Corp.
10027	Simonswerk North America Inc.
40018	Simpson Strong-Tie
39016	Siteline
34017	Sky Building Materials
10036	Skyreach Equipment
40017	Smart Glazier Software
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21017	Smith Case Inc.
54097	Solar Art
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26017	Spider by BrandSafway

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51068	Strong Tempering Glass
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28002	Strybuc Industries
41037	Sturtz Machinery Inc.
36018	Sullivan Hardware
14050	SynergX Technologies Inc.
15002	Taconic
31051	TAKA-WPR
13008	Tanner
43019	TBP Converting Inc.
54093	Techniform Metal Curving
13016	Techno Rubber Industries
11021	Technoform
51100	Techno-UMG America
51008	Tecnoglass SrL
54074	Tedee SpZo
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49019	Winlet USA
51057	Winpro
42011	Winsys
16054	Witte North America
48027	Wood's Powr-Grip Co.
37011	Wurth Construction Services
48083	Xinglass America
27021	YKK AP America
51069	Yuntong Glass USA
15016	Zak World of Façades
50089	Zhengzhou Zhongyuan Silande High Technology Co.
53079	Zhongli Glass

Products



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01



02



03

01. Marvin

Marvin's Modern Corner window is designed to seamlessly integrate with the existing Modern design system, offering architects, builders and homeowners a new way to maximize views and light in modern spaces. Sleek lines and large glass help provide expansive views. The corner window is built to deliver performance with its high-density fiberglass material and single-piece frame design intended to maximize thermal performance, durability and stability.

888/537-7828 | MARVIN.COM

02. Rehau

The Rehau Aspekt 1800 outswing casement window product line, comprising Aspekt and Aspekt+, employs a fully integrated screen channel on the frame, which breaks dependency on fasteners. This also eliminates interference with handle operation. Rehau Aspekt+ allows for larger window openings with dimensions up to 40 inches wide and 90 inches high, and a sash weight capacity of up to 200 pounds.

800/247-9445 | REHAU.COM

03. AmesburyTruth

AmesburyTruth's Contour Contemporary Handle and Cover for casement products is symmetrical in styling, featuring straight line design elements. The solid zinc construction is designed for both residential and commercial markets with a longer handle with detent spring and fold-out knob, allowing for smooth operation. Available in painted and plated finishes, this system is also appropriate for remodeling. The cover can apply directly over existing Contour hardware.

800/866-7884 | AMESBURYTRUTH.COM

Product/Solution



Patio Lift // Roto

As property owners increasingly favor large glass façades for bright, panoramic views, the demand for seamless indoor-outdoor transitions is on the rise. The Lift&Slide systems, with their generous openings and effortless operation, are the perfect solution.

Key features

- High-quality roller unit technology
- Easy-to-use espagnolette
- Consistent-design handles
- Design locking
- Night ventilation

Approach

The Roto Patio Lift, compatible with both aluminum and vinyl profiles, sets a new benchmark in comfort, design, quality and security, all while maintaining processing efficiency. It's designed to handle sash weights up to 882 pounds (400 kilograms), making it suitable for both standard and modern slim profiles, thus catering to a broad spectrum of applications.

Solutions

The Roto Patio Lift is a game-changer for modern buildings, offering exceptional operational convenience and a sophisticated design. The slim versions further expand its application possibilities, accommodating even modern, slim profiles with minimal visible widths and high design standards. The system is not only easy to install but also boasts quiet operation and remarkable durability.

Results

The Roto Patio Lift also offers significant time savings due to its compatibility. Both round and flat connecting rods can be mounted on the roller units for the 300 kg and 400 kg versions, eliminating the need for an adapter during installation and speeding up the hardware processing. This also simplifies storage and logistics by reducing the variety of parts required. For more information, visit rotonorthamerica.com. ■



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Products



Magid

Magid's GP102 general-purpose work glove features a foam nitrile palm coating that uses no drinking water during the manufacturing process. Magid is putting this new coating onto a glove shell that's made with 90% recycled GRS-certified yarn and packaged in 100% recycled material. This foam coating is softer and more flexible than standard nitrile, while maintaining the oil and water resistance of traditional foam nitrile.

800/203-0414 | MAGIDGLOVE.COM



Kwikset

Kwikset's first electronic access control solution, Unite, is tailored to the multifamily market. For multifamily property managers and owners, Unite simplifies property management by reducing the time and costs associated with key management. It also meets the increasing demand from renters and owners for more technologically advanced living experiences by incorporating features like Bluetooth technology and RFID.

KWIKSET.COM

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Joseph Machine Co.	67	717/432-3442	josephmachine.com
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Vantage Point Industries	112	909/786-0629	vantagepointindustries.com
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FrameWork



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The home in Saratoga, California, features modern Generation 4 bifold glass walls by NanaWall.

From '90s Drab to Modern Oasis

A RESIDENTIAL CASE STUDY IN SARATOGA, CALIFORNIA, USES NANAWALL BIFOLD GLASS WALLS TO TRANSFORM INTO AN INDOOR-OUTDOOR OASIS.

Project: Saratoga, California, residence

Products: Jet-black, aluminum-framed NanaWall Generation 4 NW Aluminum 840 bifold glass walls

Description: When a growing family of outdoor enthusiasts purchased a 1994-built home in Saratoga, California, they envisioned transforming the 1.2-acre property into

the ultimate outdoor living oasis. The homeowners were determined to turn their vision of a contemporary indoor/outdoor recreational abode into a reality, embracing the extensive renovation in 2019. Completed in 2022, the result exceeded expectations, leveraging modern design solutions like bifold glass walls to deliver the ultimate indoor/outdoor retreat for the entire family.

Traditional fixed windows and sliding patio doors at the back were replaced with fully customizable, modern Generation 4 bifold glass walls.

The consistent use of wood throughout enhances the natural, biophilic appeal of the home. Each element works in harmony with the panoramic views, natural light and fresh air ventilation the NanaWall folding glass walls, which make up the entirety of the rear-facing façade, provide.

The architect specified jet-black aluminum-framed NanaWall Generation 4 NW Aluminum 840 bifold glass walls to transition between the primary bedroom and living room and the outdoor living areas.

Read more about the project at WindowandDoor.com. ■



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Power Up Your Career with Your Personal Brand

By Stefanie Couch

In today's competitive world, standing out is more important than ever. Whether you're a business owner, a seasoned professional or just starting out, your personal brand is your ticket to success. It's your unique selling point, the thing that sets you apart from the crowd. And the good news? You have complete control over it.

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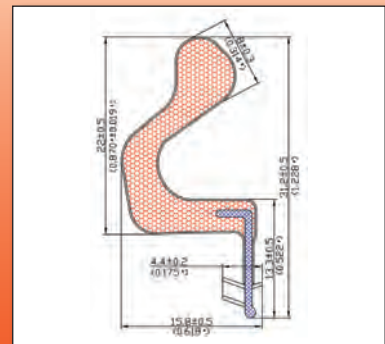
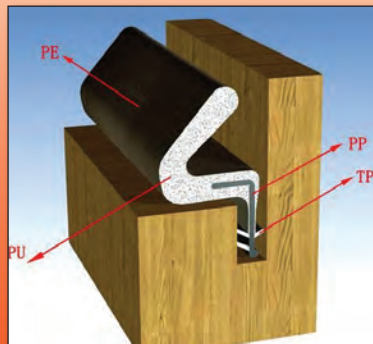
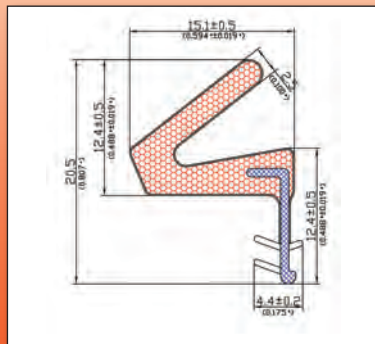


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