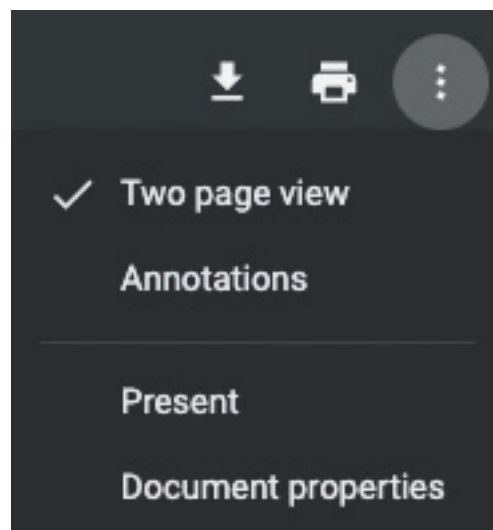


WINDOW + DOOR

**Welcome to the digital edition of
Window + Door!**

**To view the issue in a two-page format,
click the triple dots in the upper right
corner and select “Two-page view.”**



WINDOW+ DOOR

North American
Fenestration
Standard

P. 22

HR in
Manufacturing

P. 32

Privacy Glass

P. 46

SHOW-
STOPPING

Pivot Doors

THE UNIQUE DESIGN,
MANUFACTURING AND
HARDWARE CONSIDERATIONS
FOR PIVOT DOORS

OFFICIAL PUBLICATION

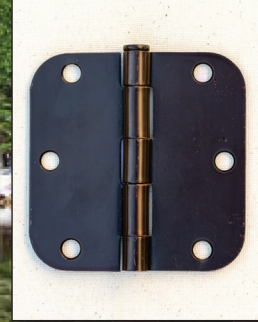
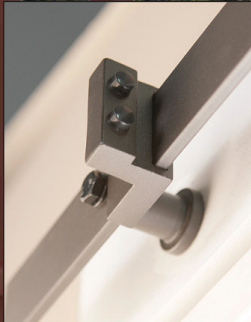
GlassBuild
AMERICA

THE GLASS, WINDOW & DOOR EXPO

GLASSBUILDAmerica.COM



We Bring Doors to Life!

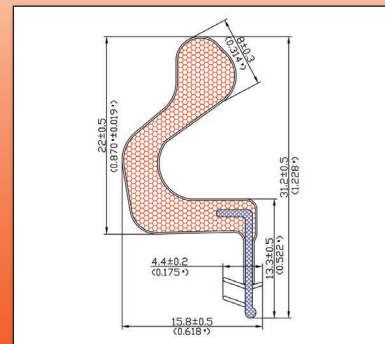
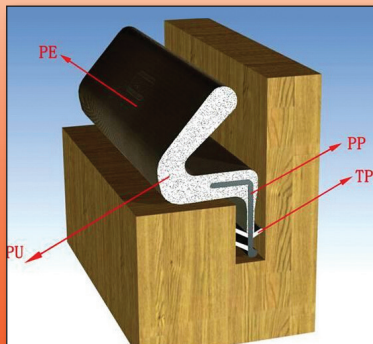
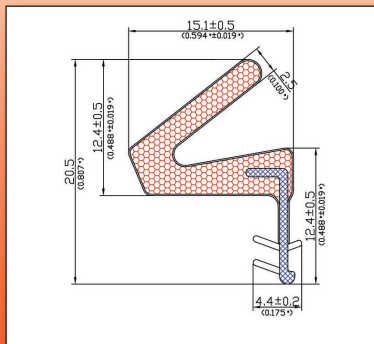


Hinge & Barn Door Hardware in Multiple Designs & Finishes

Major Product Categories:

Hinge, Plate, Track, Bag Kit, Barn Door Hardware, Weatherstrip & Accessories

High Quality Weatherstripping & Corner Pad for Fire Rated Doors



**UL Category H & J Certified
AAMA Class A Certified**



895 S. Rockefeller Ave. #104, Ontario, California 91761

Tel: (909) 786-0629 Fax: (909) 605-1806

www.VantagePointIndustries.com



Window & Door
Technology

Reliable Delivery Performance for High Quality Products



Roto creates **superior customer value**
as a leading supplier of North American
and European window & door hardware

Casement & Awning | Sliding Patio | Hinged Patio |
Tilt & Turn | Hung & Sliding | Push-out

RotoNorthAmerica.com

Residential fenestration coverage, from source to sale // windowanddoor.com // Vol. 31, No. 4 // July/August 2023

40

Features

40. A Trend Toward Pivot Doors

The unique design, manufacturing and hardware considerations for pivot doors.

By Rachel Vitello

46. Privacy Glass' Creative Design Opportunities

Offering innovative safety and security solutions, privacy glass helps create a truly connected living space that doesn't sacrifice style.

By Tara Lukasik



Insights

16. Observation Desk //

The Data Tells a Story // By Laurie Cowin

18. In the Trenches //

Pushing Patio Doors Forward // By Eric Thompson

22. Decoded //

Updated NAFS Provides Industry Answers // By Janice Yglesias

26. Eye on Fenestration //

Potential Demand Surge for R&R // By Chris Beard

28. Letter of the Law //

Contractual Defense Terms // By Matt Johnson

32. Your Business Matters //

Manufacturing HR Trends // By Rachel Evans

36. Safety //

Staying Safe in Extreme Heat // By Rachel Vitello

Intel

10. News //

In the Know

52. Products //

Fenestration Finds

56. People //

On the Move

62. FrameWork //

A Quiet Space

From our Sponsors

53. Product/Solution // Intercept Insulating Glass

Line by GED

60. Ad Index

On the Cover: Gaining in popularity as statement pieces, pivot doors can be installed as both interior and exterior doors in contemporary residential designs. The FOUR LP pivot door by Maiden Steel features segmented glass panels and a compressed framework that provides a range of views while maintaining a strong modern aesthetic.

eko25
OKNA

American Systems



Check it

8 new systems designed to meet all your needs

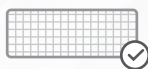


Familiar systems with outstanding performance

Advanced features:



integrated nailing fin



integrated window screen



efficient double glazing units

www.ekookna.us

Online

HIGHLIGHTS FROM
WINDOWANDDOOR.COM

➔ Follow us on social media



twitter.com/
windowdoormag



facebook.com/
windowdoormag



instagram.com/
windowdoormag

Be sure to subscribe to our Window + Door Weekly newsletter from the homepage to get exclusive and curated content delivered to your inbox every Wednesday.

➔ WindowandDoor.com Exclusives

Go to windowanddoor.com for exclusive content, including:

- New Energy Star 7.0 reporting requirements
- Top Manufacturers Report shows a year of growth
- Navigating a dynamic window & door market
- Getting the most from automated equipment

➔ The Talk // Blogs of the Month

Catch up on all the latest industry "talk" at windowanddoor.com/blogs



Modern Performance, Historic Look

By Tammy Schroeder



Understanding the NFRC Window Label

By Stephen Aki



Manufacturers Plan to Expand

By Laurie Cowin

“Supply chain challenges have eased significantly, while labor, inflation and rising costs put more strain on companies. But one thing remains constant: Despite headwinds, the industry continues to invest in itself, grow and innovate.”

Window + Door™ (ISSN 1525-1195), Volume 31, Number 4. This periodical is published six times a year, January/February, March/April, May/June, July/August, September/October and November/December by the National Glass Association, 344 Maple Ave. West, Unit 272, Vienna, VA 22180. There is no charge for subscriptions to qualified requestors in the U.S. and Canada. All other subscriptions will be charged \$49.95 in the U.S. and Canada, and \$79.95 in all other countries. Periodicals postage paid at Vienna, VA, and at additional mailing offices. POSTMASTER: Send changes of address to Window & Door, PO Box 419, Congers NY 10920. Canada Post: Publications Mail Agreement #40612608. Canada Returns to be sent to Bleuchip International PO Box 25542, London, ON N6C 6B2, Canada. For all subscription inquiries, please call 1-800-765-7514. ©2023 National Glass Association. All rights reserved. Printed in the U.S.A.

WINDOW+DOOR

Produced by



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, Digital

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

Tristan Scoffield // Sales Consultant // tscoffield@glass.org
703/442-4890 ext. 194

Cameron Wooddell // Sales Coordinator // cwooddell@glass.org

Board of Directors (2022-23)

Brian Hale // Chair // Hale Glass Inc.

Ron Crowl // Chair -Elect // FeneTech Inc.

Rick Locke // Treasurer // Montana Sash & Door

Guy Selinske // Immediate Chair // American Glass & Mirror Inc.

Denise Baker // Spring Glass & Mirror

Tara Brummet // Vitrum Industries

Tim Kelley // TriStar Glass Inc.

Silas Koonse // Koonse Glass Co.

Courtney Little // Ace Glass

Jodi Martinez // AllStar Glass Co. Inc.

Syndi Sim // DFI Diamon-Fusion Intl.

Jim Stathopoulos // Ajay Glass Co.

Kyle Sword // Pilkington

Nicole Harris // President & CEO // National Glass Association

WELDING EXCELLENCE

STÜRTZ HORIZONTAL WELDERS

Safe, optimized welding for PVC window and door profiles. Stürtz offers Conventional, Hi-Speed Turbo and Seamless ContourLine welding options for the fenestration industry. Weld sizes up to 5 meters with automatic unloading provides flexibility and efficiency for multiple window and door sizes as standalone machines or as part of an automated pass thru welding and cleaning system.

Contact Stürtz at 330-405-0444 or info@sturtz.com to find out how we can help improve your manufacturing process with the latest technology matching your needs.



STÜRTZ

1624 Highland Rd Twinsburg OH 44087 – P: 330.405.0444 – F: 330-405.0445 – info@sturtz.com

Moving doors and windows forward

QUADZilla®

Effortless sliding motion

Ideal for panels of
up to 1300lbs



Features and Benefits:

- 650lbs load capacity enables you to build doors of up to 1300lbs.
- Made with pressed metal components and forged axles to ensure robust product under large weights.

GIANT Series

Adjustment made easy

Ideal for panels of
up to 1000lbs



Features and Benefits:

- 500lbs load capacity enables you to build doors of up to 1000lbs.
- Made with pressed metal components and forged axles to ensure robust product under large weights.

GIANTQuad

The industry's strongest roller

Ideal for panels of
up to 2200lbs



Features and Benefits:

- 1100lbs load capacity enables you to build doors of up to 2200lbs.
- Made with pressed metal components and forged axles to ensure robust product under large weights.

1000 Quad

Adjustment made easy

Ideal for panels of
up to 880lbs



Features and Benefits:

- 440lbs load capacity enables you to build doors of up to 880lbs.
- Increased strength through the main housing ensures greater structural integrity.

4600 Series

Performance that stands
out from the rest

Ideal for panels of
up to 700lbs



Features and Benefits:

- 350lbs load capacity enables you to build doors of up to 700lbs.
- Made with pressed metal components and forged axles to ensure robust product under large weights.

1000 Duo

Adjustment made easy

Ideal for panels of
up to 550lbs



Features and Benefits:

- 275lbs load capacity enables you to build doors of up to 550lbs.
- Increased strength through the main housing ensures greater structural integrity.

9000 Series

Moving heavy doors with ease

Ideal for panels of
up to 800lbs



Features and Benefits:

- 400lbs load capacity enables you to build doors of up to 800lbs.
- Face adjustable, making installation and on-site servicing easy.

8000 Series

Heavy doors are a pushover

Ideal for panels of
up to 700lbs



Features and Benefits:

- 350lbs load capacity enables you to build doors of up to 700lbs.
- Face adjustable, making installation and on-site servicing easy.

7000 Series

Simply made better

Ideal for panels of
up to 550lbs



Features and Benefits:

- 275lbs load capacity enables you to build doors of up to 550lbs.
- Face adjustable, making installation and on-site servicing easy.

5000 Series

Easy installation, smooth operation

Ideal for panels of
up to 550lbs



Features and Benefits:

- 275lbs load capacity enables you to build doors of up to 550lbs.
- End adjustable, making installation and on-site servicing easy.

View on website



Manufacturer of
Verified Components



**ANTHONY
INNOVATIONS**

Moving Doors And Windows Forward

www.anthonyinnovations.com

To discuss your requirements contact us on:
salesna@anthonygroup.net



STAY IN THE KNOW // [Subscribe to Window + Door Weekly](#), our weekly newsletter that keeps you informed with everything fenestration every Wednesday

ProVia Acquires Premier Profile Lamination

ProVia purchased the assets of Premier Profile Lamination Inc. of Youngstown, Ohio. ProVia and Premier Profile Lamination, a laminator of PVC components for the door and window industry, have worked together for many years on ProVia's patio door and window product lines. The acquisition allows for further development of streamlined processes and product development, say officials.

ProVia intends to continue operating Premier Profile Lamination's current manufacturing facility in Youngstown until at least the end of 2023. The company will begin relocating Premier Profile Lamination to a facility in New Philadelphia, Ohio, which ProVia purchased in 2021. The goal is to fully transition the operations by the second quarter of 2024. ProVia has begun investing in site renovation and estimates this operation will create an additional 20 jobs within the local community.

PGT Innovations Announces Ownership Stake in Eco Enterprises, Brand Expansion and Relationship with Service Finance

PGT Innovations acquired the remaining 25% ownership interest in Eco Enterprises LLC after acquiring a 75% ownership stake in 2021 to accelerate revenue growth, expand margins and strengthen the supply chain by adding glass production capacity while diversifying and bolstering product lines. Eco is a brand of aluminum, impact-resistant windows and doors primarily serving the South Florida region, with manufac-

turing and glass processing facilities in Miami, Florida.

PGT Innovations expanded its presence in Texas through its NewSouth Window Solutions brand, now selling in five major metro areas in the state: Austin, Dallas, Fort Worth, Houston and San Antonio. The company also broadened its product offerings in all five markets to include garage doors from Martin Door.

PGT Innovations also announced a new exclusive consumer financing relationship with Service Finance Company LLC, a subsidiary of Truist Bank. The new relationship is expected to drive future organic growth for PGT Innovations while expanding its presence in the window and door industry for Service Finance. As part of the agreement, PGT Innovations dealers will gain access to a financing program, payment features, consumer-friendly terms, and access to training and customer service that can help dealers increase their sales.

Assa Abloy Closes Deal on Acquisition of HHI

Assa Abloy received clearance from the Mexican competition authority to acquire Spectrum Brands' Hardware and Home Improvement division, HHI.

The company originally signed the agreement to acquire the division in September 2021, but the U.S. Department of Justice blocked the proposed acquisition. Assa Abloy entered into binding agreements with Fortune Brands to divest of Emtek and Smart Residential business in the U.S. and Canada to resolve the alleged competitive concern surrounding the proposed acquisition of HHI, say company officials.

Sierra Pacific Windows to Open New Facility

Sierra Pacific Windows plans to build a new facility in Phenix City, Alabama. The company announced its intention to construct a 610,000-square-foot manufacturing plant on a 113-acre site.

The company currently operates plants in California and Wisconsin. The company did not provide an estimate on an exact number of planned jobs but states in a release that new job opportunities will "reach into the hundreds," including job types such as technicians, managers, engineers, machine operators and maintenance, among others.

YKK AP Teams Up with cove.tool, Opens Design Center

YKK AP America Inc. and cove.tool, a building design and construction software provider, announced a partnership to make it quicker and easier for architects to reach their project's carbon, cost and energy performance goals.

YKK AP will integrate its products into cove.tool's recently launched revgen.tool, a cloud-based solution designed to make it easier for building product manufacturers to engage design teams earlier in the process as they select products. By using this tool, architects can identify and align which YKK AP-specific products may fit best with their project by using real-time, product and project-specific performance analysis, instead of generic product data.

YKK AP America also celebrated the opening of its newly expanded commercial and residential design center, Studio 101, co-located with YKK AP's headquarters. It was first launched in

ONE COMPANY, TWO BRANDS!



IG & WINDOW SYSTEMS
& SOFTWARE



PRE-HUNG DOOR
MACHINERY



Improved quality and
increased capacity at
the lowest total cost.



Connected and
optimized through
software.



Flexible solutions
with high returns on
investment.



Visualize your production floor & tour machinery:

<https://windowfactorylive.gedusa.com/interactive-norfieldged-manufacturing-maps/>



31100 Diamond Pkwy
Glenwillow, OH 44139
330-963-5401
www.GEDUSA.com



GED MADE,
SOLD, AND
SERVICED
IN THE USA!

Visit both GED
and Norfield at
booth # 330

IG Systems

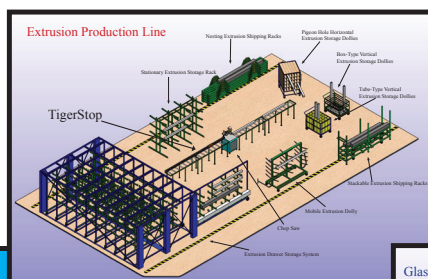
Software

Window Systems



**THIS LOOKS LIKE A JOB FOR...
WAKEFIELD
EQUIPMENT!**

**WAKEFIELD
EQUIPMENT
CAN SAVE THE DAY!**



WORKFLOW

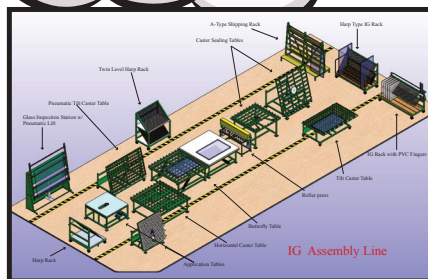
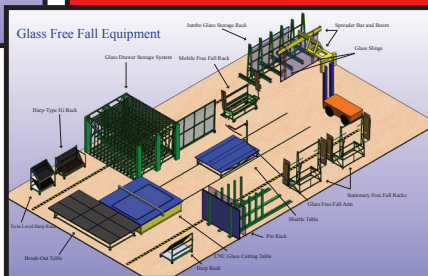
The right equipment will eliminate bottlenecks and improve efficiency.

PRODUCTION

Ergonomically-friendly equipment makes for a more productive and safer process.

PACKAGING & SHIPPING

The right equipment to ensure your product arrives at its destination in perfect condition.

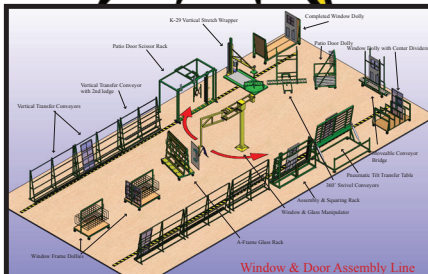


**MACHINERY &
EQUIPMENT
FOR THE
FENESTRATION
INDUSTRY!**

SPECIALIZING IN...

**Vertical & Horizontal Stretch Wrap
Machines • Up-Cut, Chop & V-Notch Saws •
Copy Routers • Punch Presses • CartCaddy
• Custom Built Equipment • Window &
Door Assembly Lines • Screen Tables •
Lineal Positioners & TigerStop • Glass &
Material Handling Equipment**

...AND MUCH MORE!



News

2021, with a core focus on commercial architectural products, and has been expanded to include a wider range of YKK AP residential windows and doors.

Additionally, Studio 101 now includes a designated training center, designed to provide customers and partners with hands-on training experiences to ensure proper installation of YKK AP's entrances, storefront, curtain wall, window wall, window and door products. The training center is also designed as a shared space for the architecture, engineering & construction community to host their training.

Roto North America Partners with Autoslide

Roto North America announced a distribution partnership with Autoslide, a sliding patio and swing door automation products manufacturer.

Autoslide is expanding its sliding patio door system further with automation solutions for swing doors and Lift&Slide doors. Autoslide sought a partner with well-established relationships and a trusted name in the fenestration industry to maximize its growth potential throughout the U.S. and Canada. They recognized Roto as a quality hardware manufacturer, and the two companies began working together. Autoslide products are now available to window and door fabricators exclusively through Roto, as the sales and distribution partner.

Kolbe Windows & Doors Expands into Arizona

For over 75 years, Kolbe Windows & Doors has maintained facilities in Wausau and Manawa, Wisconsin. Now, Kolbe is expanding its manufacturing capabilities with a 27,000-square-foot facility in Phoenix, Arizona.

Kolbe's Phoenix facility is located at 21430 North 15th Lane, #100, and houses 22,000 square feet of manufacturing space, plus a small showroom and offices.

20140 Detroit Road • Cleveland, OH 44116 • PH: 440-899-5658 • FX: 440-899-5661

ATTRACTION™

HANDLE AND COVER



REVOLUTIONARY STYLE AND PERFORMANCE

The Attraction handle and cover has taken style and performance to whole new level for casement and awning windows. This hardware option will blend seamlessly into your window design providing elegant aesthetics and functionality your customers will love.



FORM

Hassle-free operation utilizing a patented technology that draws the handle into resting position creating a smooth, sleek design!



FIT

Engineered for use with the Encore® operating platform, and pairs perfectly with Maxim LP® and Encore contemporary locks.



FUNCTION

The new design provides stability when rotating and the longer handle reduces operating force.

CLICK
HERE



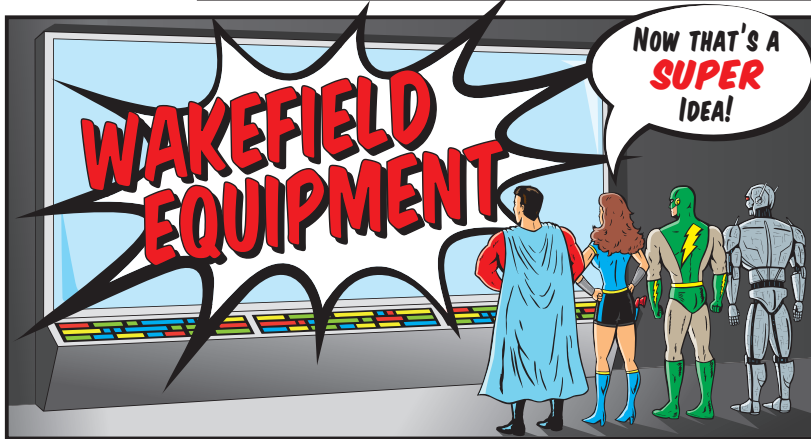
SEE ATTRACTION
IN ACTION

Visit amesburytruth.com/attraction

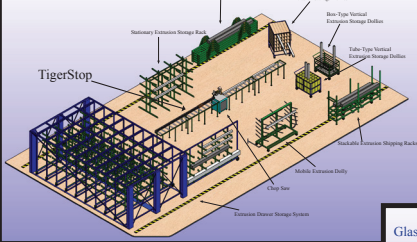
 **AmesburyTruth®**
TYMAN group



BOTTLENECKS AND INEFFICIENT WORKFLOWS TAKING OVER?? THIS LOOKS LIKE A JOB FOR...



Extrusion Production Line



WORKFLOW

The right equipment will eliminate bottlenecks and improve efficiency.

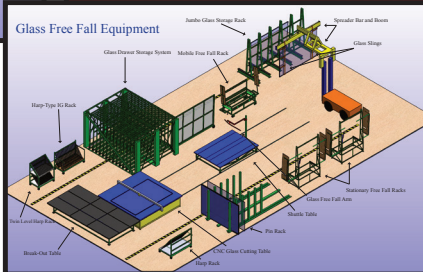
PRODUCTION

Ergonomically-friendly equipment makes for a more productive and safer process.

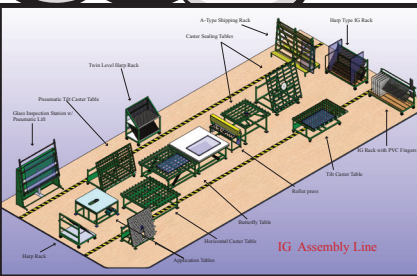
PACKAGING & SHIPPING

The right equipment to ensure your product arrives at its destination in perfect condition.

Glass Free Fall Equipment



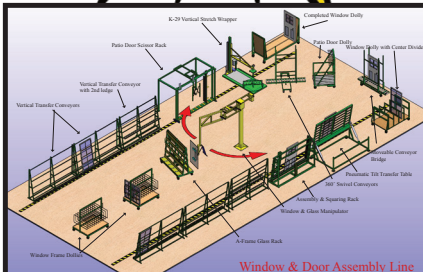
MACHINERY & EQUIPMENT FOR THE FENESTRATION INDUSTRY!



SPECIALIZING IN...

Vertical & Horizontal Stretch Wrap Machines • Up-Cut, Chop & V-Notch Saws • Copy Routers • Punch Presses • CartCaddy • Custom Built Equipment • Window & Door Assembly Lines • Screen Tables • Lineal Positioners & TigerStop • Glass & Material Handling Equipment

...AND MUCH MORE!



News

Deceuninck North America Earns GreenCircle Recertification, Hosts Belgian Ambassador

Deceuninck North America earned recertification from GreenCircle Certified LLC, a third-party verifier that provides independent evaluations of sustainable products and operations.

GreenCircle evaluated Deceuninck's products and manufacturing operations to verify sources of recycled materials and identify the degree of recycled content within its supply chain. The company's claims were independently verified to adhere to ISO 14021, Definition of Recycled Content, and the FTC Green Guides. GreenCircle also analyzed the life cycle of Deceuninck's PVC window lineals and verified the products as closed loop according to CFR 261.4(a)(8).

The Deceuninck GreenCircle certifications are in effect through April 2024.

Deceuninck North America also hosted a visit from Jean-Arthur Régibeau, the Belgian ambassador to the United States, at its facility in Monroe, Ohio, on May 26. The visit marked Régibeau's first visit to Deceuninck North America since taking on the role of ambassador. Deceuninck's executive leadership team welcomed the ambassador, delivered a company presentation and provided a tour of its manufacturing plant.

Fensterbau Frontale Returns March 2024

Fensterbau Frontale returns from March 19-22, 2024, to Exhibition Centre Nuremberg in line with its regular schedule in combination with Holz-Handwerk. The event offers plenty, including the forums "Architecture-Window-Facade" and "A Practical Guide to Digitization for Craftspeople," the Fensterbau Frontale Forum, various special display areas, and other exciting features. ■

CAUTION!

DON'T BUY ANOTHER FLEXSCREEN



SCAN FOR MORE INFORMATION OR GO TO:

DONTBUYFLEXSCREEN.COM

The Data Tells a Story

Be part of the narrative



By
Laurie Cowin
EDITOR

Earlier this year, I discovered Power Zone training on my Peloton spin bike. I'd heard about it for a couple of years and in the long winter days that kept me mostly housebound, I was looking for a new physical challenge. I embarked on a pre-structured training program focusing on total output, calculated by combining cadence and resistance. Bit by bit, my output crept up. The targeted training program provided data specific to my fitness levels, enabling me to work smartly to increase my functional threshold output (FTP). In the first half of this year alone, my FTP increased by 20%.

Although I partially chose journalism as a career field because of my disdain for math and numbers, I frequently find myself immersed in—and even engrossed by—numbers and spreadsheets full of data in both my personal and professional life.

The annual Industry Pulse and Top Manufacturers Reports are among the highlights of my work year, and I look forward to seeing what does—and doesn't—change year over year. The data tells a fascinating story, and subsequent conversations and qualitative commentary add even more depth. Readers tell me annually how they value the data we provide from each survey and reference it throughout the year.

When John Burns Research and Consulting approached Window + Door about partnering in a quarterly market study earlier this year, we jumped at the opportunity to provide even more relevant data to the industry. JBREC offers independent research and consulting services related to the U.S. housing industry. (Get a glimpse of the data they provide; see Eye on Fenestration, p. 26, for insights from Chris Beard, director, building products research, JBREC, about the state of the R&R market.)

We look forward to working with JBREC to provide relevant and targeted data for the resi-

dential fenestration industry that we can share at GlassBuild America and in our publications and digital assets throughout the year.

But here's the catch: it won't work without your participation. We know the survey asks for information many companies prefer not to divulge and are taking steps to ensure total privacy. Here are some common concerns and how we will address them:

1. How will we keep your responses private?

JBREC, which has received an Integrity Research Compliance Accreditation, will collect all the data. Window + Door and the National Glass Association will receive information in aggregate but will not know which companies submit which data points so you can be assured your responses will never be tied back to you.

2. How will we use the data?

JBREC will compile a takeaways report each quarter with the latest data and insights from qualitative commentary. As this survey progresses, we'll provide quarter-over-quarter and year-over-year insights.

3. How will this data benefit the industry?

The quarterly report will be a first-of-its-kind index of the residential fenestration market and will equip industry participants with valuable information about current and future business conditions to help decision makers make informed business decisions.

Just as providing targeted training data for my bike ultimately helps me to be a stronger cyclist, providing consistent data for this study will ultimately provide a tool to help you strengthen your company. The data tells a story. Won't you be part of it? ■



REGISTER TO
PARTICIPATE IN THIS
10-MINUTE SURVEY
AND WE'LL BE IN
TOUCH!

QUANEX IS THE RIGHT PARTNER FOR VIWINCO BECAUSE THEY CAN PROVIDE

THE LEVEL OF SERVICE WE'RE LOOKING FOR.



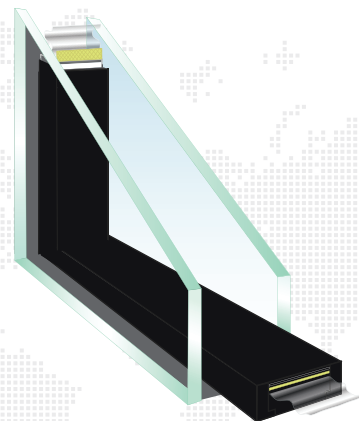
"The industry is always evolving and changing. As we look at developing new products and making our windows more energy efficient, Quanex is going to play a key role in that. We've switched over to the Quanex Duralite spacer in all of our IG units. They are a partner. They have a great technical support team, willing to come on site, and work with our team to develop new products and fine tune our processes."

SKYLER BARNES

Director of R&D, Viwinco



Scan to discover how Quanex can partner with your business to provide fenestration solutions. Learn more at [QUANEX.COM](https://www.quanex.com)



Quanex

Pushing Patio Doors Forward

Improved energy performance and total integration with the indoor and outdoor experience are desirable traits for high-performance patio doors



By Eric Thompson

Window + Door's 2023 Industry Pulse marked this year as one where we'd see an influx of new products in the marketplace. "More than 80% of companies plan to offer new products this year—the highest percentage since I started compiling this report four years ago," wrote Editor Laurie Cowin. "Consumers want customized windows and doors. They want color and design options. Plus, many are living in older homes where the windows are wearing out, and it's time to replace them."

Patio doors are among the potential areas to capitalize on with new product development. The Industry Pulse noted that multi-slide/multi-panel patio doors were the second most-demanded product among consumers last year, right behind vinyl windows.

If you're looking to break into the patio door market or to enhance your current patio door product portfolio, there are a few things to think through as you introduce your new product. Here are some considerations for window and door manufacturers when seeking to innovate with high-performance patio door systems.

What's driving patio door trends?

One of the drivers behind the heightened demand for patio door systems is the increasing desire to combine the indoors and outside in modern living spaces. Large openings, made possible by oversized residential windows and doors, have attracted many homebuilders and renovators.

Uniting interior and natural spaces is sometimes called biophilic design, a concept that seeks to infuse natural elements into the interior space and create harmony with the outdoors. Wood, water, greenery, natural light and air are all common, with fenestration elements creating intuitive openings and connections with the outdoors. Biophilic design can reduce stress, improve creativity and improve the well-being of its inhabitants.

No compromises on energy performance

We know that Energy Star Version 7.0 hits in October, and window and door manufacturers have been working diligently to upgrade their Energy Star lines to meet the new criteria. Whether or not you choose to design a new patio door offering those specifications is a business decision you'll need to make. Still, there's no denying that the Energy Star label can be a powerful motivator for consumers.

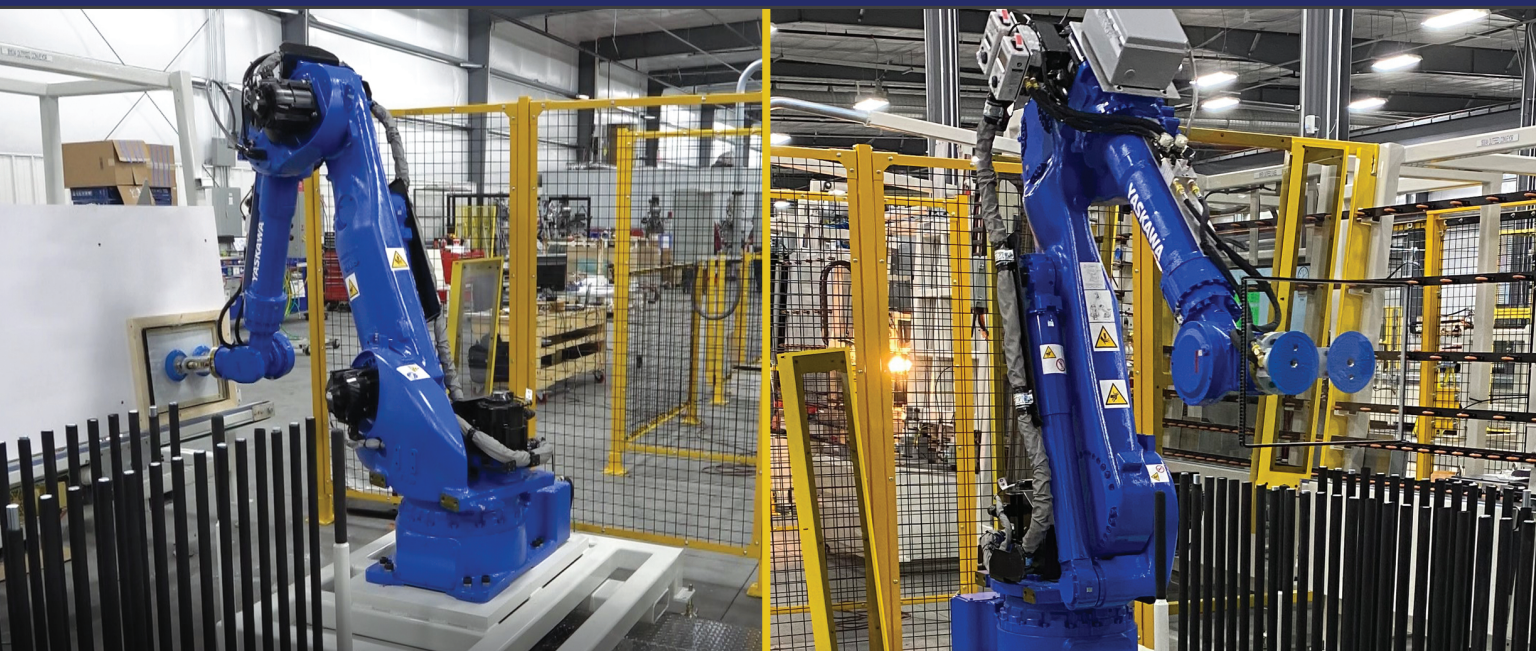
But even without the Energy Star label, consumers simply expect their investment will offer higher performance levels than a door they might



HEAD-TURNING INNOVATIONS

THAT ARE PRACTICAL SOLUTIONS FOR

YOUR BOTTOM LINE



ERDMAN® HIGH SPEED IG LINE W/ ROBOTIC IG DIRECT-TO-SASH & IG OFFLOAD

Erdman is your local partner in robotics and automation. We will work with you to innovate and reduce your labor requirements to provide a safer environment at your facility as well as a significant cost savings.

Erdman is unique in that we focus on all facets of window manufacturing and can help you integrate your departments and create a safer, more efficient flow through automation.

For 30 years we have concentrated completely on the North American market. We started small, service focused, nimble and innovative. We continue that focus today even as we are big enough to handle the largest of projects.

Visit www.erdmanautomation.com or call 763-389-9475 for more information.

VISIONARY THINKING. EXCEPTIONAL DOING.

ERDMAN 

➔ In the Trenches

be replacing—especially in higher-end applications. Simply put, there's no room for compromise regarding energy performance.

For these reasons, selecting a door system that can help meet these expectations is important. Vinyl framing technology is available that can help maximize both energy efficiency and durability. Performance attributes to seek can include foam-filling capabilities. And remember that aesthetics are critical too—minimized frame cross sections allow for pleasing aesthetics with a larger glazing area without any loss of performance.

Don't forget about screens

To fully capitalize on the potential that patio doors bring to a home, it's important to remember the screen door. Because as much as a homeowner might seek to unite their interior spaces with the outdoors, they still want to keep the bugs out, and expect reliable functionality every time they open or close their patio screen.

If you're launching a new patio door system, a new size and type of screen must also be developed. That means new punches specific to that

door, machinery that can properly assemble it, screen tabs and more. And that's just for one specific size—a diversified line will require different equipment and components for corresponding screen production.

All of this screens-related capital requires considerable expenditure. Some companies may want to consider outsourcing screening solutions and focus their money on the patio door system in terms of color options, a higher-performing glass package and more.

Working with a dedicated screens vendor can give companies the potential to realize greater efficiency in the production process, free plant floor space and labor, and build higher value into their product without worrying about screens-related considerations.

Will you be capitalizing on greater demand for patio doors? These are some of the things worth thinking through. Remember, working with a supplier who can provide the right technology and services can make a big difference. ■

Eric Thompson is national account manager for Quanex.

NOVA
P L A S T E C H

1-888-320-4433
james.meeks@novaplastech.com
NOVAPLASTECH.COM



NOW QUOTING OEM / CUSTOM PROFILES!

- We are an industry leader in Rigid PVC, Cellular PVC, Composite, and Aluminum Profiles!
- Trusted partner with major OEM's
- QA & Test procedures to monitor your product quality to industry standards
- Ask about our zero cost die program

**CONTACT
US TODAY!**

If You are Stuck Being Dependent on Imports,
We Offer our Condolences

16,000 Miles from your source, Long Supply Chain, Long Term
Contracts, Managing Supply Chain Logistics,

TARIFF FREE

If You Would Like to Enjoy the Benefits of
American Made Hardware
We Offer our Services

**Want to Visit one of the Only
Hardware Companies In the USA?
We will Pay your Way to Visit
Our Domestic Factory!**



Reduced Inventory
World Class Prices
World Class Quality
Inventory Management
Programs



In House:
Design
Tooling

Why Buy from
Any Other
Country?



LAWRENCE
INDUSTRIES, INC.
www.lawrenceindustriesinc.com

*From Concept to Delivery
Faster than Anyone on the Planet!*



100% Made in USA



Consult the New Version of NAFS for Industry Answers

NAFS is regularly updated to address market trends, technology, building codes and rating systems



**By Janice
Yglesias**

Whether building a new home or upgrading an old one, homeowners and residents want to know the window, door and skylight products they choose will comply with code, perform well, operate easily and deliver realistic benefits.

When homeowners have questions about fenestration performance, they turn to builders, contractors and manufacturers. When manufacturers, contractors, architects and others in the industry have questions, they consult the NAFS for answers.

Complies with codes

The AAMA/WDMA/CSA 101/I.S.2/A440, North American Fenestration Standard/Specification for windows, doors, and skylights (NAFS) offers a performance-based, material-neutral means to evaluate products. First jointly published in 2005,

with individual roots tracing to the early 1960s, NAFS is regularly updated to address changes in market trends, technology, building codes and rating system performance requirements.

The 2017 edition of NAFS, NAFS-17, is currently referenced in the 2021 editions of the International Building Code and International Residential Code in the U.S. Released in February 2023, NAFS-22 is proposed for inclusion in the 2024 editions of these codes. NAFS-17 is also referenced in the 2020 edition of the National Building Code of Canada, with NAFS-22 proposed for inclusion in the 2025 edition.

Anticipating future code adoption, manufacturers can start testing now to ensure their products meet the new standard. NAFS-22 has been simplified, streamlined and reorganized so users can easily find the information they need.

Performance Class Designations

R: commonly used in one- and two-family dwellings.

LC: commonly used in low-rise and mid-rise multi-family dwellings and other buildings where larger sizes and higher loading requirements are expected.

CW: commonly used in low-rise and mid-rise buildings where larger sizes, higher loading requirements, limits on deflection and heavy use are expected.

AW: commonly used in high-rise and mid-rise buildings to meet increased loading requirements and limits on deflection, and in buildings where frequent and extreme use of the fenestration products are expected.

SOURCE: FGIAONLINE.ORG



**ERGO
ROBOTIC
SOLUTIONS**

**Coast to Coast
Sales & Rentals**
Financing Available

Made in the USA

Means Serviceability

GM2000-26



**GM2000-16
with Winch**

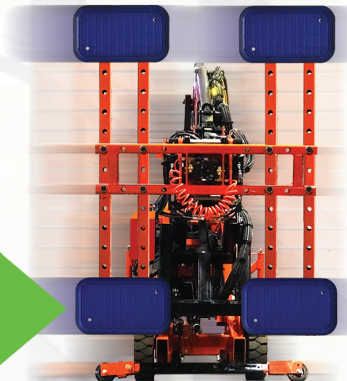
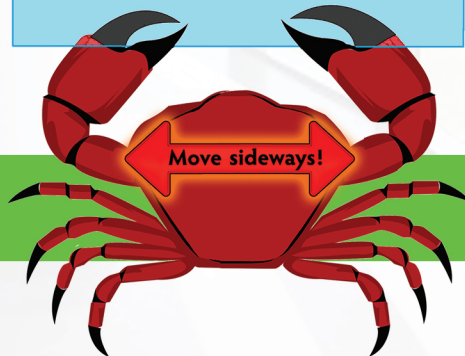
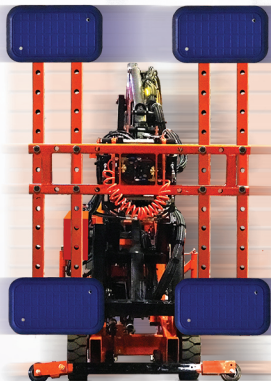
Exclusively from Ergo Robotic Solutions,
the Crab Crawl is a game-changing feature
available as an option on all GM models.

**New Feature:
the Crab Crawl!**
Sideways-Movement
Option available now
on all GM models!

Crab Crawl

**Side to side
Movement!**

Move sideways!



Call or Email Jerry j.nudi@ergorobotic.com 518-796-2179 ErgoRobotic.com

Performs well, operates easily

One of the goals of NAFS-22 was to continue the U.S. and Canadian harmonization, maintaining stringent requirements acceptable to both countries. This has led to a cross-border expansion of performance requirements. For example, in the U.S., air-leakage requirements now include exfiltration (interior air leaking outside) and infiltration (exterior air leaking inside).

NAFS-22 also achieved a balance between U.S. and Canada for operating force requirements. NAFS-22 combined operating force tables to include all product types and performance classes. A single requirement now identifies the maximum force to initiate and maintain movement.

Homeowners continue to prioritize natural ventilation and indoor-outdoor connections, and ever-larger openings. The demand for expansive multi-panel folding doors has grown since these products were first included in NAFS-17. Responding to this market trend, NAFS-22 has expanded the definition and configurations for folding doors.

Delivers realistic benefits

NAFS performance class designations assist in matching fenestration performance to project requirements and consolidating testing requirements for manufacturers. The R, LC, CW and AW performance class designations for windows and doors have been in place since NAFS-08. (See the box on p. 22 for explanations of each designation.) The typical applications for each of these performance classes are defined within NAFS-22.

In NAFS-22, performance class R products no longer require a minimum test size. Now, manufacturers test these products using sizes they commonly manufacture, rather than a required sample size.

When homeowners are confident in the performance of their windows, doors and skylights, our whole industry benefits. ■

Janice Yglesias is the executive director of FGIA, overseeing the full organization. She can be reached at jyglesias@FGIAonline.org.

NOVA
P L A S T E C H

**WE
CAN SOLVE
THAT!**



1-888-320-4433
NOVAPLASTECH.COM



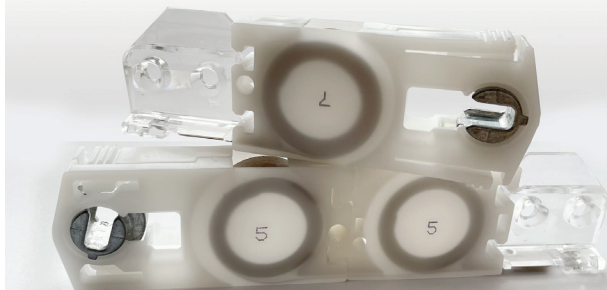
Consistently Reliable Performance and Supply Introducing Vision's Constant Force Balance Systems



Click the play
button to watch
a bonus video

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 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.



In-stock and ready for delivery

Features:

- A full range of sing, double, triple, and quad balancers 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.



480 Elizabeth Avenue, Somerset, NJ 08873 | (800) 220-4756 USA | (908) 822-2003

©2023 Vision Hardware - Patent Pending

Backlogs Ease, but a Potential Demand Surge May Be Coming

The R&R market and Inflation Reduction Act may generate an uptick in windows and doors



By Chris Beard

Widespread supply chain issues in materials and transportation affected many industries, including housing. Factors such as raw material shortages in everything from aluminum to zinc caused delays and extended lead times across many product categories.

The housing market experienced a surge in demand. Home improvement projects soared, straining supply chains and extending backlogs, becoming especially evident in the window and door industry.

Windows and doors require many components sourced from many different suppliers, and disruptions in even minor components cause widespread delays. In our monthly survey of building materials dealers at John Burns Research and Consulting, windows were the product most often cited as leading to project delays throughout 2022, extending lead times into 2023.

As interest rates rose in 2022 and inflation impacted consumer spending, demand for building products slowed. This waning demand, coupled with improved supply chains and logistics, allowed manufacturers to catch up with production, and our research shows that for most products, lead times are back to pre-pandemic levels. But while lead times have largely returned to normalized levels, price increases implemented to offset material and labor inflation over the past two years appear to be sticking.

Structural tailwinds expected to create a rebound in demand

At JBREC, we expect a rebound in homeowner investment in repair and remodeling projects once stability in the overall economy returns, underpinned by:

- 24 million homes will reach “prime remodeling years” by 2027, defined as those homes 20 to 39 years old and ripe for replacement products.
- 85% of all mortgage borrowers are “locked in” at rates below 5%, discouraging new home purchases at higher mortgage interest rates,

and driving homeowner demand for existing home upgrades.

We also believe the Inflation Reduction Act will generate demand for many building products, including windows. This legislation introduced major changes to federal incentives for residential energy efficiency upgrades through 2032. The impact of these incentives on the window and door industry is yet to be determined as homeowner awareness of these incentives remains low. A recent study of homeowners by our New Home Trends Institute showed that 52% of homeowners were unfamiliar with the program, suggesting a significant opportunity to upsell qualifying products. Our analysis shows that a 1% increase in adoption could impact the windows and doors market by over \$3 billion.

Is the industry prepared for the increase in demand, or will history repeat itself?

Many manufacturers have cited redundant sourcing of critical components, a beneficial strategy should supply issues arise. This also allows manufacturers to build up sufficient safety stock to ensure continuous production.

Companies have also noted increased investments in automation and, in some instances, less-efficient manufacturing facilities closed and replaced with newer, more efficient plants. One reason for these investments is the persistent labor shortage.

The industry must continue proactively adapting its production capacity, inventory management and logistics operations to meet the expected demand. Manufacturers that have optimized their component sourcing strategy and production process have an outsized opportunity to benefit. And contractors would be well advised to continually monitor lead times with manufacturers to set expectations with homeowner customers. ■

Chris Beard is director of building products research at John Burns Research & Consulting.



Some things are better on the inside

Blink puts the blinds between the glass where they clearly make better sense.

Blink 1" IGs for windows and patio doors

- Light and Privacy Control
- Expanded Custom Size Range
- Easy Operation
- Increased Bottom Line

blink
BLINDS + GLASS
An ODL Brand



3 Contractual Defense Terms

What defend, trigger and obligation mean and how they can affect your company



By Matt Johnson

Most companies do not anticipate the cost for reimbursing a stranger's insurance carrier when signing a contract. However, when an unbound duty to defend is in a contract, that risk is a real and present danger. Some careful term management can help mitigate or avoid defense cost exposures.

Most are familiar with contractual indemnity clauses. These terms are intended to address the allocation of cost risks where a breach of contract results in a loss to one of the parties. The cost shifting in these terms has made them the frequent subject of legal and risk management review. But within these clauses usually lie phrases that present far more of a financial burden than indemnity. Here we examine three of them.

Defend

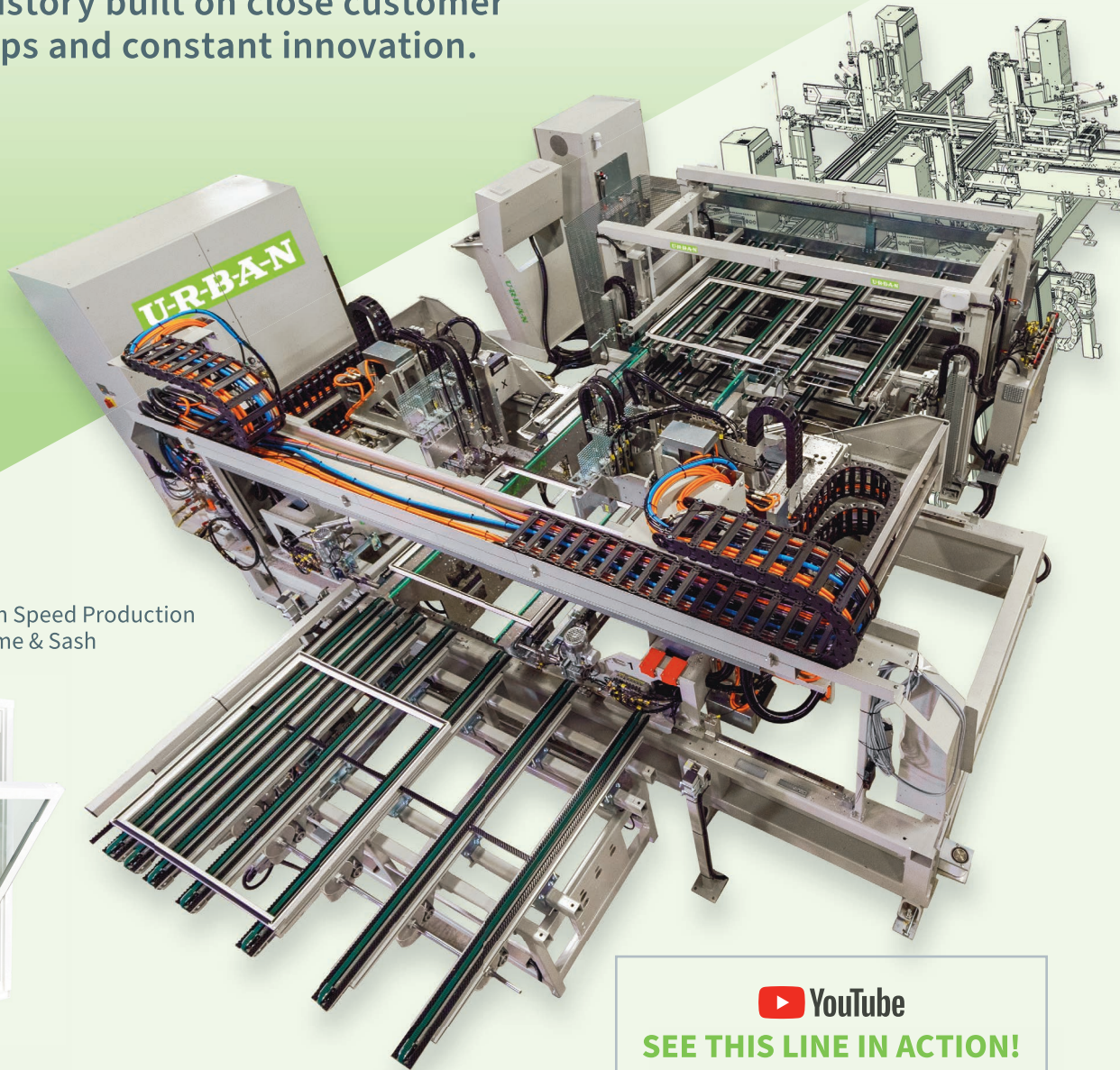
Where the word “defend” is included in the indemnity terms or there is a standalone defense clause, a company can become contractually bound to retain and pay for a lawyer to address a claim of breach or a third party's damage allegations that are made against the other party to the contract. In these scenarios, the contractual obligation is not to allocate the cost of a loss but rather to try to prevent the loss in the first place. And as anyone who has gone through a legal proceeding can attest, the process costs present much more of an immediate financial burden than the potential ultimate loss.

With contractual defense terms closely tied to—or even embedded within—indemnity clauses, it is

AUTOMATION CONCEPT – PLANNING – EXECUTION

A proven history built on close customer relationships and constant innovation.

Hung Window High Speed Production
Machinery for Frame & Sash



SEE THIS LINE IN ACTION!

youtube.com/UrbanMachinery

urban-machinery.com

1-800-263-4216

U-R-B-A-N

Trust. Right from the start!

important to pay careful attention to the separate nature of the obligations. Defense commitments tend to arise immediately after a breach or claim is alleged, while indemnity obligations arise after a dispute has been determined. As such, the most important risk management points surrounding a contractual defense obligation revolve around the concepts of trigger, scope and the nature of the obligation.

Trigger

Trigger is shorthand for when the defense obligation begins. Contractual certainty, with respect to when the financial obligation to pay for the defense of another party, is essential. For example, where the defense terms are tied to “allegations” or “assertions of defect” with work or products, the obligation to defend can arise before a lawsuit or other formal legal proceeding begins. Moreover, where left unaddressed, the defense obligation can be read to include the reimbursement of defense costs incurred at any time, including those before notice or tender of the claim.

When faced with a defense obligation, address concerns regarding trigger by precisely defining when the defense commitment begins. For example, refining general terms to ensure that the defense begins only “after written notice” or is limited to “after a complaint is filed” can help provide more certainty. Consider also specifically disclaiming any responsibility for costs incurred before proper notice or not explicitly anticipated by the defense obligation.

Once triggered, there can be disputes about the defense obligation’s scope. These disagreements center on what must be defended and the costs that must be borne in connection with the defense obligation. Where no terms define what must be defended, courts can read the bare “defend” commitment as encompassing the entire scope of a claim. This can prove especially problematic where a litigation or demand involves multiple parties and allegations well beyond a limited contractual scope of work.

Obligation

To address the prospect of unbounded financial risk presented within broad scopes of defense, the nature of the obligation must be set out with certainty. A defense obligation tied to the “proportionate extent” that a claim involves a contractual scope, or one tied only to the part

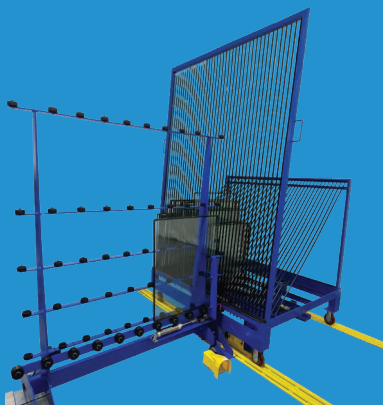
of a claim “directly arising out of” a scope, can help limit the exposure the defense obligation can impose. Likewise, specifying maximum contribution thresholds in the event of multi-party claims can help contain runaway costs in huge litigations.

The nature of a contractual defense obligation is also paramount to controlling loss. These clauses can specify who can select the lawyer

Reduce Labor *and* Rejects with

Field-proven and fully-automated AutoRack1™ racks and un racks units on vertical and horizontal IG and tempering lines without an operator, one unit every 10 seconds. You improve efficiency, yields and safety.

Get details, see videos and calculate your payback (usually less than a year) at iasmachinery.com/rack.

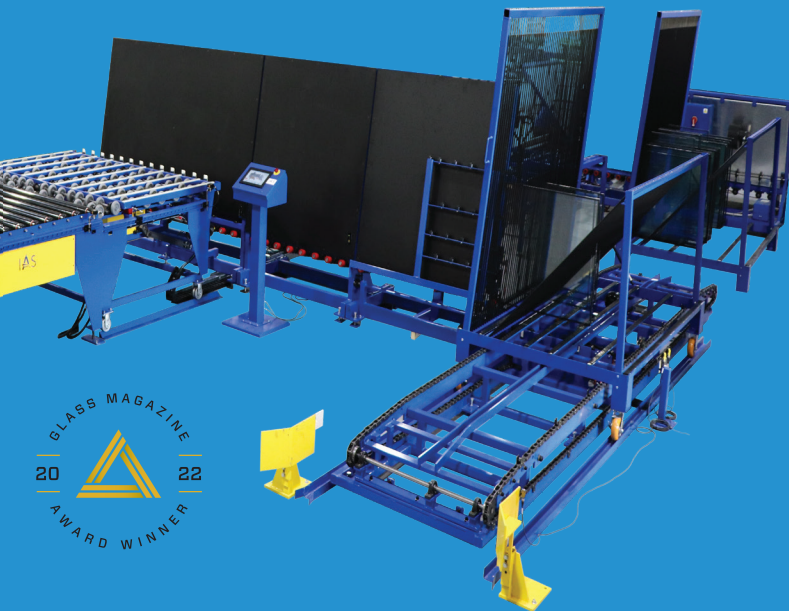


Semi-automated RackAssist safely racks and un racks glass and IG without damage. With its low price, you can deploy it in multiple locations around your plant. Details and videos at iasmachinery.com/rack.

GlassBuild America Booth 2131

REGARDLESS OF WHAT AN INSURER DECIDES TO DO IN RESPONSE TO A CLAIM UNDER ITS POLICY, THE CONTRACTUAL OBLIGATION EXISTS SEPARATELY AND ATTACHES TO THE PARTIES TO THE AGREEMENT.

AutoRack1™ and RackAssist



Make More With Less
iasmachinery.com

Ryan McHugh 330.954.3070 ryan@iasmachinery.com

for defense. They can also turn the defense obligation into one for reimbursement, by which there is no ability to actively defend. Further, control over the defense, and how a claim is ultimately resolved, are terms that many times are preserved to one party over another. These controls on the nature of the defense provided within a contract can increase the financial burden on the party bearing the defense obligation and should be actively addressed in negotiation.

Many expect that their insurance company will bear a contractual defense obligation. That can prove true where the specific facts for an insured contract are within the scope of coverage.

It is also important to remember that the contractual defense obligation is separate from an additional insured obligation that the carrier might owe. The point, however, is to remember that regardless of what an insurer decides to do in response to a claim under its policy, the contractual obligation exists separately and attaches to the parties to the agreement.

It is this individual responsibility for contractual defense that insurance carriers sometimes use to seek recovery for defense fees from parties. The legal claim is one for equitable subrogation. It arises when one party to a contract has their contractual defense obligation funded by their insurance carrier. That carrier, in turn, looks to any other party in a claim that has refused or not otherwise contributed to the defense obligation. In many jurisdictions, the carrier is entitled to stand in the shoes of its insured and seek recovery of a portion of the fees the carrier paid to defend the claim.

Where allowed, this results in an insurance carrier for someone who is a stranger to a contract, to enforce a proportionate sharing of the costs incurred for a shared contractual defense obligation. Mitigating this risk—like all contractual defense exposures—requires an appreciation of the risk and active negotiation of the obligation at the time of contracting to refine the defense commitment. ■

Matt Johnson is a member of The Gary Law Group, a firm specializing in legal and risk issues facing manufacturers of glazing products. He can be reached at matt@prgarylaw.com.



3 Trends in Manufacturing HR

How COVID affected recruiting and retention, and how one company is staying on top of the trends



**By Rachel
Evans**

The COVID-19 pandemic had major implications for human resources teams around the globe. In the manufacturing sector specifically, we've had to pivot tremendously in our recruiting and retention efforts to stay competitive in attracting and keeping top talent. Three top trends that continue to evolve in the manufacturing HR realm are managing the desire for hybrid or remote work, an increased focus on employee experience and individualization, and the utilization of technology. Here, we take a closer look at each of these trends.

Hybrid and remote work

When recruiting, a remote or hybrid work option is a top request from candidates. This obviously can't be offered to manufacturing team members who need to be onsite for production lines. Still, it is something that office position candidates are asking for. Offering remote or hybrid work to new candidates is sometimes the deciding factor that encourages them to come work for a company.

We've had to rethink every office job, looking at each specific position and the feasibility of hybrid or remote work with travel versus relocation requirements, while also maintaining a balance between roles that can be flexible and those that need to be onsite every day.

Employee experience

Emphasis on employee experience is the second trend we've seen. With so many companies competing for the same candidates based on compensation, the employee experience has become more critical in setting a company apart. It's imperative to ensure every connection, from recruitment on, is positive. Existing team members are also looking for this outstanding employee experience. At PGT Innovations, managers and leaders do more than direct a team and focus on productivity. They develop humanistic relationships with direct reports to focus more on the emotional wellness of their teams.



WINDOW TECHNOLOGY
DOOR TECHNOLOGY
AUTOMATIC ENTRANCE SYSTEMS
BUILDING MANAGEMENT SYSTEMS



 **BERLIN**



Ferco Architectural Hardware Inc.

T. 800 927 1097

T. 888 454 0161

ferco@ferco.ca

ferco.ca | g-u.com

Securing technology for you





To that end, another one of the most important trends right now in HR is individualization. We're all very different, with different backgrounds and cultures, which creates crucial diversity within our organization. People want to be seen and treated as individuals and should be regarded that way.

Some team members perform at higher levels than others. Some people want to be managers, some don't. Some are retiring soon, and some are new to the workforce. Knowing all these details on what makes each person unique is the definition of what talent management is and helps us create a positive employee experience.

As leaders, it also helps us identify individual goals and present relevant opportunities. Embracing a more collectivist approach to everything that makes a person who they are ensures that team members go where they want to go. Creating an improved employee experience requires us to lean more heavily on technology to minimize administrative tasks so our leaders can devote more time and energy to human interaction. This is definitely a good thing, but it's also a learning curve and a whole new skill set for many leaders.

Technology

This leads to the third major trend in our indus-

try: using technology to recruit and retain talent. Keeping up with technology while managing risk, primarily from an organizational privacy standpoint, is a significant hurdle for many organizations.

For example, companies can use AI to create a job description in minutes, but it can also create unknown risks that many of us are still learning about. There are, however, many benefits to leveraging technology, like using it for data collection so an organization can run metrics and understand the "bench strength" it currently has. This also helps identify employees' key skills and understand things like talent turnover. Additionally, technology can help optimize current talent by identifying individuals who may be able to transition into new roles based on their skill sets. It also helps make informed decisions for succession planning.

While things are constantly changing, some things stay the same. Innovating in the business applies to HR as well as manufacturing and products, and we strive to do so while navigating the many challenges and trends along the way. ■

Rachel Evans is senior vice president of human resources at PGTI.



COMBiLiFT
LIFTING INNOVATION

Safety Storage Efficiency

Manage your glass & window warehouse more safely, using less space and more productively with Combilift's materials handling solutions

- Safer product handling
- Optimized production space
- Improved storage capacity
- Increased productivity & output
- Enhanced profits

Contact Us Today

To find out Combilift can help you unlock every inch of your storage space

combilift.com



4 Tips for Staying Safe in Extreme Heat

How to stay safe amid high temperatures



By Rachel Vitello

With summer in full swing, much of the nation is under extreme heat. High temperatures can be harmful, and at times potentially lethal, for those who work in the field, like installers. There are ways those who work outside can keep themselves safe during these warmer months.

1. Drink cold water

According to the Occupational Safety and Health Administration, those working outside in extreme heat should drink cold water even when they're not thirsty. The recommended amount is one cup every 20 minutes.

Magid, a safety equipment supplier, also suggests employers take the following precautions to keep their workers hydrated:

Give out cool beverages with additional nutritional and mineral benefits.

Certain varieties of electrolyte-replacing beverages absorb into bodies faster than water. They help replace salts or minerals people lose to high temperatures; however, electrolyte-replacing drinks should never be the sole drink choice.

Provide hydrating options other than soda and energy drinks.

Many sodas and energy drinks contain high amounts of sugar and caffeine, which can cause dehydration because of its diuretic properties. Cool water and electrolyte-replacing beverages are the better choices.

Drink stations should be placed as close to an employee's jobsite as possible.

If drink stations are far from work areas, or contain warm water, employees will likely neglect their hydration needs. It's vital to ensure cool liquids are accessible and available all day long.

2. Take breaks

Employees working outside should take breaks long enough to recover with consideration to temperature, humidity and other conditions of the day.

Employers should make sure to provide adequate breaks or alternating shifts throughout the day.

According to the Centers for Disease Control, for example, employees performing heavy work in 95 F weather, should work for 45 minutes and rest for 15 minutes on average. The rest-to-work ratio changes depending on the temperature and the level of work being done. Workers should try to take their breaks in shaded and/or cool areas.

3. Dress for the weather

Just like you should wear layers when working in the cold, you should be equally prepared while working in the heat and sun. Workers outside should wear a hat and light-colored, loose-fitting, and breathable clothing if possible.

4. Know the signs of heat illness

Even when steps are taken to prevent heat illness, it's possible to fall susceptible to the extreme heat of the summer while working outdoors. That's why it's important for employers and employees to look out for each other on the jobsite and recognize the signs of someone with heat illness and know the appropriate next steps to take.

Heat illness symptoms, according to OSHA:

- | | |
|-----------------------------------|-----------------------------|
| • Headache | • Elevated body temperature |
| • Nausea | • Thirst |
| • Weakness or dizziness | • Decreased urine output |
| • Heavy sweating or hot, dry skin | |

What should you do?

- | | |
|-------------------------------|---------------------------|
| • Provide water | or a fan |
| • Remove unnecessary clothing | • Do not leave alone |
| • Move to a cooler area | • When in doubt, call 911 |
| • Cool with water, ice, | |

Signs of a medical emergency, where 911 should be called right away, include abnormal thinking or behavior, slurred speech, seizures, and loss of consciousness. ■



LEADERS IN FABRICATION AUTOMATION

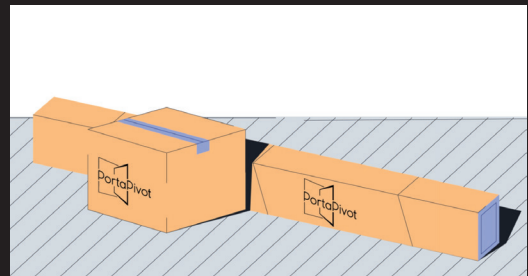
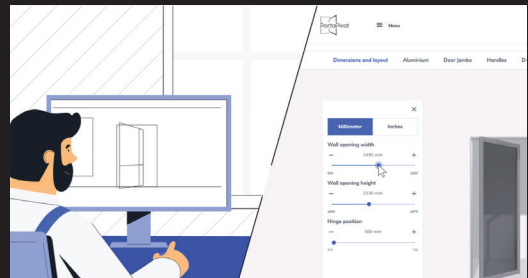
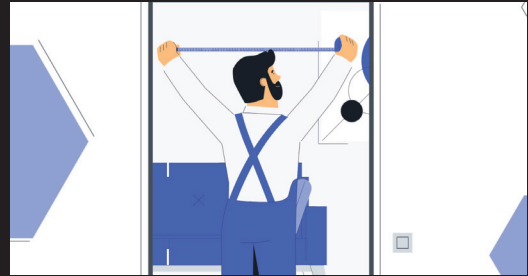


CUT, FAB, WELD, CLEAN

Joseph offers solutions for all facets of window production - high speed, multi-track sawing, custom fabrication centers, welders, cleaners, automatic pass through welding/cleaning systems, & Industry 4.0 data collection systems

Joseph
machine

- SALES@JOSEPHMACHINE.COM
- 717.432.3442



OUR PROCESS IS FAST, EFFICIENT, AND SIMPLE

You configure and order the desired setup online, and we produce the necessary hardware and provide the exact glass dimensions. Our made-to-measure hardware is shipped within 20 business days. You can then assemble the door with locally sourced glass.

GET 10% OFF

your first order by using the code

WD10

*“All you need is skills,
we supply the rest.”*



Pivot and sliding door hardware
for interior craftsmen



Discover more on
www.portapivot.com

DESIGNED FOR CRAFTSMEN

Our distinctive **pivoting room dividers** have the ability to completely transform a space. Not just by giving it a cool and modern edge, but they also offer a modular way to open up space and let in more light.

The invisible pivot hinge is integrated into the aluminum frame. The door is **installed in a finished door opening** and the hinge is mounted on top of the floor and ceiling, without the need for any built-in fixtures.

Due to clever engineering, even a toddler can open doors that weigh up to 150 kg!

TRENDSHUNTER

A TREND TOWARD

Pivot

Segmented glass panel pivot
door by Maiden Steel.

The unique design, manufacturing and hardware considerations for pivot doors

BY RACHEL VITELLO

Doors

► **MORE AND MORE PEOPLE** are choosing pivot doors for the entryway to their homes out of a desire for something “visually impactful” and to “differentiate their home,” according to Brad Loveless, marketing and product development manager for Simpson Doors.

“You won’t see a pivot door on a starter home; it will be on a high-end home. That homeowner, designer or architect wants to make it a showpiece,” adds Loveless. “A pivot door is just unique enough to catch peoples’ eye. I think that’s driving the trend more than anything.”

Vice President at Panda Windows & Doors Troy Baker adds that customers are pushing the boundaries with larger and wider pivot doors and “innovative, wild and creative designs and surfaces” to achieve that desire for something unique. These creative designs could be things like integrated lighting or unique color options.

TRENDS WITHIN PIVOT DOORS

Pivot doors are made from a variety of materials. Maiden Steel makes steel pivot doors, Simpson makes wood pivot doors and Panda makes both wood and aluminum pivot doors.

Maiden Steel Founder Todd Noe says that larger pivot doors are what most of the company’s customers have been asking for lately.

Pivot door by Panda Windows & Doors.

“Four or five years ago, an 8-foot-tall door was the big, oversized standard and slowly that’s gone up to 9 feet. Now, I see 10-foot and even up to 12-foot-tall doors being considered the standard,” Noe says. “We try to go even bigger than that.”

Baker agrees that customers interested in pivot doors have a “big is better mentality” and a strong desire to stand out from the crowd. Baker credits this trend to homeowners’ efforts to reinvest in their forever homes, a desire to upgrade and unhappiness with their current “old-time look.”

Noe adds that Maiden Steel offers arched top pivot doors, in addition to flat top. The Art Deco style has “re-entered the design scene in the last three years,” according to Noe.

Loveless says that multi-point locks have become popular among pivot door buyers. He says this is what accommodates those large, oversized doors the best and what is most secure.

HARDWARE

Unsurprisingly, with larger doors and more complex, customized designs, the necessary hardware can vary from the norm.

“Each of these door slabs are 350-plus pounds. You wouldn’t know it because of the touch-of-a-finger guiding. If the door were on traditional hinges, you would have a bit of a struggle to close it,” Loveless says. “The hardware is doing a lot of—literally and figuratively—the heavy lifting on a pivot system, keeping it balanced and light.”

“Four or five years ago, an 8-foot-tall door was the big, oversized standard and slowly that’s gone up to 9 feet. Now, I see 10-foot and even up to 12-foot-tall doors being considered the standard.”

DON'T SETTLE FOR A DEADBOLT WHEN YOU COULD HAVE A MULTI-POINT.



Thumb press, lever, or knob. Even electronic deadbolts. PanoLock+ is a one-of-a-kind multi-point lock that works with a variety of off-the-shelf hardware using an innovative system of adapters. PanoLock+ supports a forgiving installation and offers lasting performance, all at an affordable price point.

Don't settle for a deadbolt. PanoLock+ puts performance + security within reach.



Unlock
the details.



PANOLOCK+
MULTI-POINT LOCK





Wood pivot door by Simpson Doors.

Simpson Doors uses a “hinge” that is a single pivot point at the bottom and top of the door that’s not truly a hinge, according to Loveless. Homeowners can customize the factory setting and make simple adjustments, like speed, soft-close and how far the door can open.

Similarly, Noe says that oversized pivot doors are far too heavy for any off-the-shelf hardware, so Maiden Steel manufactures its own hardware in-house.

Baker says using proper hardware is always key. Panda recently improved its hardware to handle two times the weight of the company’s units to ensure their long-term functionality.

MANUFACTURING

Maiden Steel manufactures its pivot doors as a whole, meaning the door and jamb are permanently connected and all the tolerances are pre-set.

“This way, everything’s perfect and fully assembled before we ship. If the job site and construction conditions are less than ideal, it doesn’t matter because our doors will function the same way standing up in a client’s driveway as they will in the rough opening,” Noe says. “We do that because there’s no other way to build a door that’s 20 feet tall and weighs 5,000 pounds. There’s no hardware to accommodate that.”

Loveless says that pivot doors have a different set of machining requirements

than typical pre-hung door units, which are manufactured in mass volume.

Simpson Doors uses a five-axis CNC, so the door and the jamb may be set down and the CNC will do all the necessary machining and routing.

Baker says that Panda’s pivot doors also require some specialty machinery that differs from how the company’s traditional French doors are manufactured. The pivot door is manufactured with a lightweight unibody structure, and its surfaces are artisan-crafted for both structural and artistic styles. The pivot door also differs from traditional French doors in the use of biometrics, electronic keypads and smart home technology integration. ■

Sullivan Managed Inventory Program

Sullivan will inventory your components in our warehouse in Fort Lauderdale, Florida. You issue releases on your schedule.

This results in only as much as you need and allows for the cost saving advantages of bulk production, without the cost of excessive inventories.



Supply Chain Security

Sullivan has a dedicated team to fully manage this inventory. We watch your burn rate and WE CALL YOU with tracking reports and suggestions on increasing or decreasing the inventory amounts. You can feel confident that there will not be a shortage.

What Sets Us Apart

Our factories incorporate all the latest materials, technologies and fabrication techniques to deliver just the right product for your unique window and door systems. Our capabilities include the following:

- Aluminum, Zinc and Brass Die Casting
- Composite injection Molding, Insert Molding, Over Molding
- Roll Forming
- Metal Stampings
- Powder coat and wet paint options
- Anodizing and Plating
- Kitting and Fabrication



Supplying
Hardware Solutions
for 35 years.



Visit The
Sullivan Hardware
Booth #317

OFFICIAL EXHIBITOR

GlassBuild
AMERICA

THE GLASS, WINDOW & DOOR EXPO

Oct. 31–Nov. 2, 2023 | Atlanta, GA

(954) 522-2358 Office
(954) 522-2361 Fax

3360 SW 13th Avenue
Fort Lauderdale, FL 33315

Info@SullivanHDW.com
www.SullivanHDW.com



Double pane, tempered glass with ThermaPlus coating, privacy on and off, in a Vancouver, British Columbia, home. Photos by Kolbe Windows & Doors, courtesy of CMGT Construction Group.

Privacy Glass' Creative

DESIGN OPPORTUNITIES



Offering innovative safety and security solutions, privacy glass helps create a truly connected living space that doesn't sacrifice style

BY TARA LUKASIK

P

rivacy glass, previously considered only for private bathrooms or luxury homes, is expanding into the mainstream market as more homeowners express concern over privacy and security, and realize the energy conservation, sustainability and psychological health benefits.

The basics of privacy

Privacy glass offers a flexible and functional solution for creating private spaces, controlling light and heat, and adding a contemporary touch to interior design. It gives homeowners several advantages and applications for control of visibility and transparency, versatility in design and space utilization, aesthetic appeal, light control and natural illumination, energy efficiency, acoustic privacy, and most importantly, enhanced security.

There are several ways that glass windows, doors and walls can allow in

natural light while helping to maintain privacy.

- **Translucent glass.** A style of glass with a frosted appearance produced by sandblasting or acid-etching clear sheet glass. Light is scattered and diffused and blurs images while still allowing light to pass through.
- **Textured glass.** Incorporating a pattern or design impressed into the pane, this glass decoratively provides privacy, and can contribute to the character of heritage homes.
- **Smoked glass.** Clear and non-obscuring, its darkened color increases privacy.
- **Colored glass.** Crystal clear, but the color increases privacy and adds visual interest.
- **Glass bricks.** With stunning light effects, these blocks allow natural light and visual texture to filter in, while maintaining privacy, reducing noise, and insulating against heat and cold.
- **Leadlights.** Traditionally seen in heritage houses, these decorative windows made of small pieces of glass enclosed in lead frames obstruct views into a house or space.
- **Smart glass.** Also known as switchable glass, a high-tech product that can be switched back and forth between a clear window panel and an opaque panel.

Trends driving development

Current design and building trends—such as sustainability, daylighting, minimalism aesthetics, smart buildings and connectivity, safety and security, and technology integration—are moving the needle on privacy glass development.

- The trend toward natural light utilization has driven the development of larger glass panels and expansive glazing systems.
- Glass manufacturers are developing solutions to enhance energy performance such as low-emissivity coatings that reduce heat transfer.
- Frameless glass systems, such as glass walls and partitions, are gaining popularity as they offer a minimalist design while providing privacy without sacrificing natural light.
- The rise of smart building technology



ODL Mistify privacy glass in white.
Photo by ODL Inc.

has influenced glass product development, integrating intelligent features such as switchable privacy glass or electrochromic glass.

“Privacy glass provides a more minimalist alternative to more elaborate decorative and camed styles, yet offers a unique look to the door glass. By nature, it provides visual security and allows for a minimalist look when used as a single pane,” says Jim Oren, vice president of business development, ODL Inc. “With the move toward working from home, privacy type glass is springing up in use for interior doors, providing light as well as privacy when the door is closed.”

Liz Huber, marketing manager, Kolbe Windows & Doors, agrees. “Smart glass for privacy within conference spaces has been used for years in commercial buildings, so it is no surprise that home office environments would utilize the technology as well. Work-from-home employees may want immediate privacy from surrounding spaces to jump on a video call or focus on a deadline, but enjoy the speed of flipping back to a more connected space within their home atmosphere afterward.”

In residential applications, beyond bathrooms and patios, Huber shares that the desire for an isolated space is fluidly changing and main entrances, elevations of the home that face a

detached accessory dwelling unit, and glass walls and partitions are seeing an uptick in popularity.

“Bringing daylighting further into the home has been proven to offer a wide array of health and wellness benefits. A floor-to-ceiling smart glass system may be a better choice for partitioning off internal flex spaces instead of traditional walls,” Huber says. “This way, natural light can be enjoyed within those central, internal rooms of the home, but privacy is attainable when needed.”

Another trend driving development involves the homeowners themselves. Residential privacy glass is utilized by various demographics, but certain groups have a higher propensity for incorporating privacy glass into their homes.

Remote professional workers utilize privacy glass to create secluded work areas while maintaining a connection with the rest of the living space. For retirees and seniors, privacy glass allows comfortable aging-in-place without sacrificing natural light and open space but still providing seclusion when needed. Baby boomers and Generation X homeowners prioritize comfort, convenience and modern aesthetics; the ability to switch smart privacy glass from transparent to opaque based on their specific needs and activities is preferred. Known for their affinity for modern technology and design, millennials and younger homeowners incorporate privacy glass into their homes as they value the sleek aesthetic of privacy glass and its ability to create modern, open environments while still allowing for privacy and control over natural light.

“Privacy glass serves a need but is also an aesthetic choice that can fulfill the requirements of various customer segments,” says Huber. “It has something to offer everyone, from early adopters of the newest technologies to creating ease of use for seniors.”



Window & Door
Technology



Manufacturing Quality Hardware in North America

Casement & Awning | Sliding Patio | Hinged Patio |
Tilt & Turn | Hung & Sliding | Push-out

RotoNorthAmerica.com



Measuring a piece of glass with a spectrophotometer at ODL. Photo by ODL Inc.



Visit [WindowandDoor.com](https://www.windowanddoor.com) to read more about ODL's privacy glass rating system.

Demand feeds innovation

Privacy glass is not new to the fenestration market, but with continued advancements in materials and technology, energy conservation regulations, and architects and designers exploring the limits of privacy glass and changing the traditional view on its uses, the industry will continue to grow. North America accounts for the largest revenue share in the privacy glass market, and global market growth—valued at \$2,237.4 million in 2022—is expected to expand at a compound annual growth rate (CAGR) of 5.75% by 2028, per Market Growth Reports.

While it appears that a sluggish economy may be in the cards for the remainder of 2023, it's an opportunity to innovate for those in the fenestration industry. Kolbe recently partnered with Gauzy to provide windows and doors with smart glass technology for flexible control of views. "Kolbe believes in

partnering with companies that are on the leading edge," says Huber, "especially as we see this as an emerging request within residential spaces.

"It's important to recognize the shift in social demands, how they evolve our living behaviors, and affect our functionality or aesthetic choices over time," adds Huber.

Much of ODL's glass design research is also influenced by consumer insights and other external sources. "When creating a design for door glass, consumer insights and trends are melded into the design ideation to capture the consumer's wants," says Oren. "There are times when concepts are market tested with renderings to get consumer reactions. Those data points will help influence the final designs."

In May, ODL signed a collaborative agreement with Miru Smart Technologies to develop electrochromic door glass and patio doors. "There looks to be

promise in the effort to bring affordable tinting to the market," says Oren on the agreement. "Being able to apply this technology will help homeowners and builders reach the net-zero home and improve a home's energy efficiency."

Additionally, ODL implemented a scientific, quantitative measurement of its glass privacy. The privacy-level rating system describes the opacity of each glass design and removes arbitrary qualifications, says Oren.

"Glass transparency has traditionally been measured in subjective, qualitative fashion. With no industry standard, every manufacturer is free to determine an opacity or privacy level for their glass," explains Oren. "Using a spectrophotometer, we measured the amount of light [photons] that passes through every type of glass used in our products. Then, the area of each type of glass used in a design is calculated, and a weighted average calculated for the design from the spectrophotometer measurements of the glass textures. Each design is placed in a category of low, medium, high or maximum based upon a percentage of how much light passes through, thus obscuring visibility through the glass."

In addition to research and development on emerging glass technologies related to windows and doors, collaboration and partnerships, and customer feedback and market analysis, window and door manufacturers can maintain a competitive advantage, stand out and stay ahead of the technology curve by offering technologically advanced, sustainable and customer-centric products that align with evolving market demands.

"Companies need to connect with not only the end users to understand their needs, but everyone within the supply chain," says Huber. "This creates fluid understanding of the needs, as well as goals, and offers various perspectives to help shape the final solution."

"A manufacturer needs to pay attention to the trends both inside and outside of their industry, understanding which ones will influence the buying decision," says Oren. "Figuring out how to incorporate those trends into an affordable product that the home buyer or remodeler can easily implement will be key." ■

A PASSION FOR INNOVATION

WE ARE YOUR
**STRATEGIC
PARTNERS**

IN FENESTRATION MANUFACTURING

**We approach every project
as a partner in your success.**

OUR ROBUST RANGE OF PRODUCTS AND SERVICES PROVIDE:

Fully automated and stand-alone production machinery

•
North American expertise and support

•
Local project management

•
Labor saving ideas while improving quality & safety

To speak to our sales team, please call our U.S. office or email via our website @ www.sturtz.com



PASSION FOR INNOVATION



CONTACT

Stürtz Machinery Inc.
1624 Highland Rd.
Twinsburg, OH 44087

Tel 1.330.405.0444
Fax 1.330.405.0445
info@sturtz.com
www.sturtz.com

Products



FIND MORE PRODUCTS ONLINE // See all the latest products and trends online at WindowandDoor.com



01



02



03

01 / Clopay

Clopay expands its residential entry door line with a Smooth Fiberglass collection featuring multiple designs, deep recessed panels with contemporary edge profiles and a brushed etched surface. They include a solid flush door with two- and three-panel Shaker, Rustic, Modern and Craftsman designs. Decorative half-view, three-quarter-view and Craftsman size windows in clear or frosted glass can be added. The entry door system can be factory finished in 18 paint colors. **800/225-6729 | CLOPAYDOOR.COM**

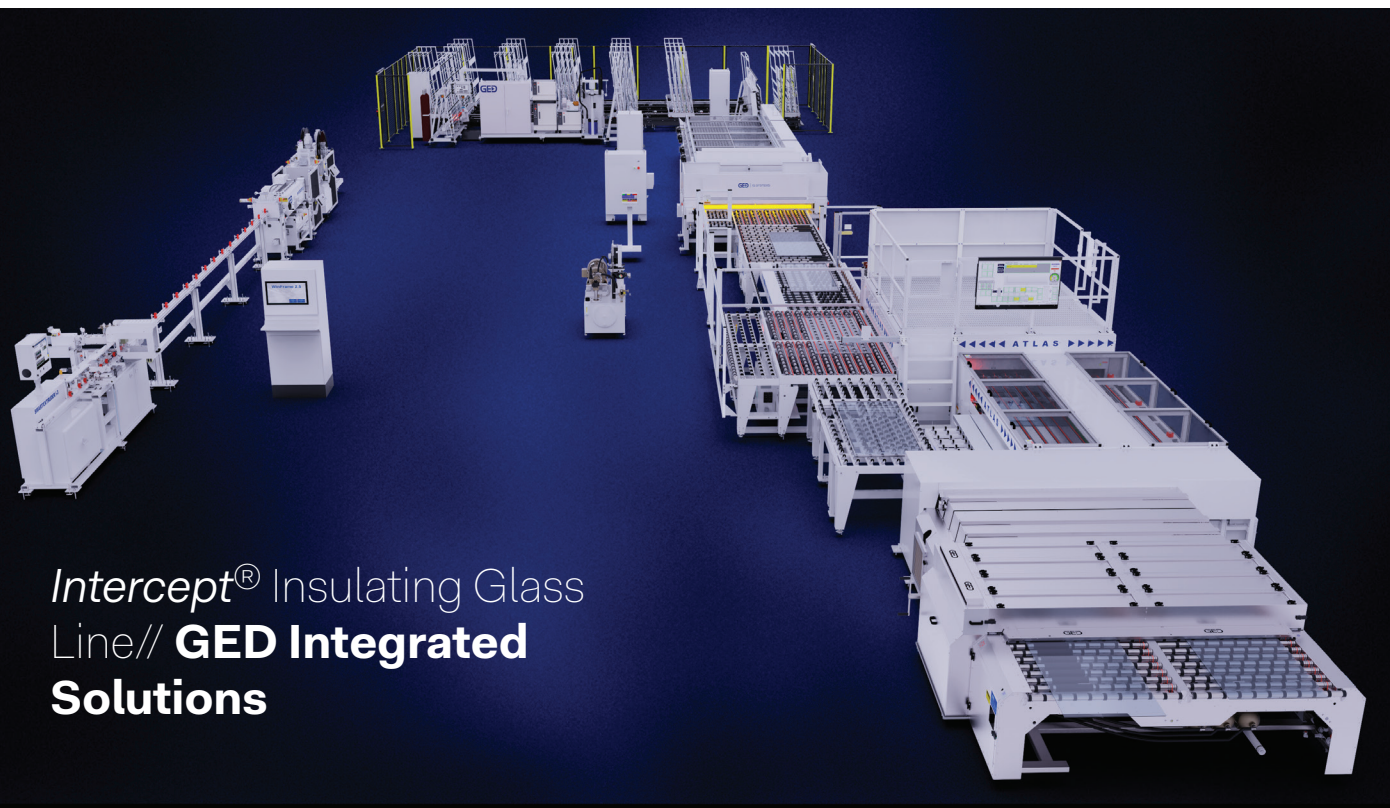
02 / Simonton Windows and Doors

PLUS4 Low-E Glass is an energy-efficient glass option for windows. It is built to prioritize the overall well-being of homeowners, and especially those in colder climates. It meets the requirements of Energy Star version 6.0 for the Northern Zone. **800/746-6686 | SIMONTON.COM**

03 / Schlage

The Schlage Encode Smart Lever is designed to work with standard, single bore-hole doors. The Schlage Home App enables remote access to the lock and can let homeowners create and manage up to 100 access codes, set schedules, see real-time activity logs, and control their lock via voice through integration with smart home technology. **888/805-9837 | SCHLAGE.COM**

Product/Solution



Intercept® Insulating Glass Line// **GED Integrated Solutions**

Challenge

A window manufacturer in southern Ohio, already using equipment from GED Integrated Solutions, explored whether it could increase insulating glass unit production without disrupting the production schedule or adding capital expenses. This company wanted to get a better understanding of machine capabilities to boost productivity to keep up with sales growth and ensure enough work for all crews such as the assembly team.

Solution

GED Integrated Solutions, a worldwide supplier of fully integrated IG, vinyl window

and door robotic automation fabrication systems, and software, discovered that this company produced about 800 IGUs over 10 hours. GED's *Intercept®* Insulating Glass manufacturing capacity produces up to 2,880 units in an eight-hour shift. GED observed the process and shaped a plan with machine maintenance suggestions; operational improvement ideas, including loading glass into washers; and personal focused training such as floor instruction and effectively tracking metrics to ensure a steady pace.

Results

The capacity utilization changes helped the company begin its productivity journey and shorten lead times without increasing

capital equipment costs. The window manufacturer more than doubled its IGU production to 1,920 units in an eight-hour shift. The company called the improvements "extremely successful." These changes helped the company reduce labor costs by eliminating all overtime, saving the business over \$300,000 per year.

Companies that increase productivity can improve profitability, limit breakdowns, affect job satisfaction scores and support the environment.

For more information, visit gedusa.com or call 330/963-5401. ■

Sponsored By





01



03



02

01 / Cornerstone Building Brands

Ply Gem Perspective is a multi-slide vinyl patio door. The invisible T-lock design is intended for high-performance, high-velocity hurricane zones and Missile D impact-resistance ratings. Frame corners are assembled with nearly twice as many fasteners as some competing products with an offset fastening pattern. Pocket, bypass and bi-parting configurations are available, as well as custom sizes up to 10 feet high and 30 feet wide. **281/897-7788 | CORNERSTONEBUILDINGBRANDS.COM**

02 / PGT Innovations

Diamond Glass, produced in collaboration with Corning and PGT Innovations, is a laminated glass that weighs up to 45% less and is three times more scratch-resistant than traditional laminated glass, according to a news release. It can be used for laminated or laminated insulating windows and doors. The company will be the exclusive supplier of impact-resistant windows and doors featuring Diamond Glass for residential and mixed-use buildings in the U.S. **800/282-6019 | PGTINNOVATIONS.COM**

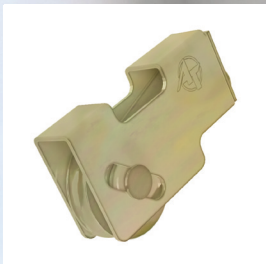
03 / Kwikset

Kwikset's Powerbolt 240 five-button keypad and Powerbolt 250 10-button keypad are the newest SmartCode electronic deadbolts. Available in both traditional and contemporary designs, the company says these new deadbolts are an easy and attainable way to upgrade to an electronic door lock. **800/327-5625 | KWIKSET.COM**

SETTING **NEW** STANDARDS



HIGH-PERFORMING
ALUMINUM HANDLE



SINGLE WHEEL
ROLLER



TANDEM COMPOSITE
WHEEL ROLLER

Innovation is at our core. AmesburyTruth introduces the Keystone series of sliding door products engineered to complement the vinyl patio door segment. Featuring a handle set and 6 rollers that meet AAMA standards, this series was developed to optimize entry level sliding patio door performance and price.

**AmesburyTruth—raising the standard in the industry.
It's what we do.**

Let our North American team work for you, AmesburyTruth has the portfolio to cover all your patio door needs. Contact us at innovation@amesburytruth.com for more information.

 **AmesburyTruth™**
Engineered Solutions. Trusted Results.

People

ON THE MOVE



STAY CONNECTED // Keep up with the latest people announcements at windowanddoor.com/people



Hayes

Jeld-Wen Holding Inc. appointed *Jas S. Hayes* as executive vice president, general counsel and corporate secretary. Hayes most recently served as senior vice president, deputy general counsel and corporate secretary for Jeld-Wen. He succeeds *Roya Behnia*, who previously

announced her intention to retire from the company in July.

The company also appointed *Wendy A. Livingston* as executive vice president and chief human resources officer. Livingston replaces *Tim Craven*, who previously announced his plan to leave the company in July.



Nordaune

Andersen appointed *Andrea Nordaune* as the company's senior vice president, chief legal officer and corporate secretary. This decision

follows the retirement of *Alan Bernick*, who served the company for 23 years. Nordaune began working with Andersen in 2000, established herself as a senior attorney and steadily climbed the ranks. Her most recent position was vice president, general counsel and assistant corporate secretary.



Blossl

Cyncly added to its executive leadership team. *Matthew Blossl* has been appointed as chief revenue officer and *James Hamilton* has been appointed as chief operating officer. Key



Hamilton

priorities for Blossl will include executing Cyncly's go-to-market strategy, delivering a seamless experience along the complete customer lifecycle and growing the customer base.

Hamilton will work closely with the CEO on groupwide strategic prioritizations and lead efforts to enhance Cyncly's customer-first strategy. He will also drive Cyncly's M&A agenda. He will maintain his responsibilities as chief financial officer in addition to his new role on an interim basis until a new chief financial officer is appointed.



Shellabarger

Masonite International Corp. appointed *Katie Shellabarger* as vice president and chief accounting officer. Shellabarger has

served as vice president, internal audit, at Masonite since April 2019. She previously held leadership roles at Deloitte, Protiviti and most recently, CDK Global.



Wood

Roto North America announced that *Steve Wood* has joined its sales team as a business development executive. Wood will be collaborating with the sales team and promoting new business in the swing patio door and commercial aluminum market. Wood will be reporting to Dan Gray, director of sales for Roto North America.

Alpen High Performance Products announced that *Adin Hamilton*, a 13-year



Hamilton



Cornwell

veteran of the energy-efficiency industry, has joined the company to scale its WinSert product line. Hamilton comes to Alpen with experience driving nationwide adoption of LED lighting and other energy-efficiency investments in commercial and industrial buildings.

Brian Cornwell also joined the company as its new marketing manager. Previously president of Materials Magazine, where he writes about building science and construction, Cornwell also owns the Materials Museum and was the previous chairman of Lyons Communications, a telecommunication company providing residential and business internet, phone and television services.



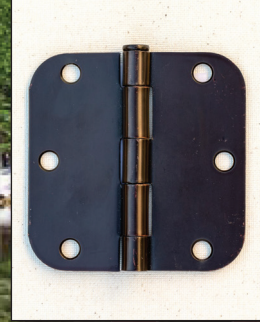
Ross

Tubelite promoted *Michael Ross* to regional sales manager for the Southeast region, which includes Maryland, Virginia, North Carolina,

South Carolina, Georgia, Florida, Alabama, Kentucky and Tennessee. He and his team of local client development managers work closely with glazing contractors and architectural teams to provide assistance with storefront, curtainwall, entrances and daylight control systems. ■



We Bring Doors to Life!

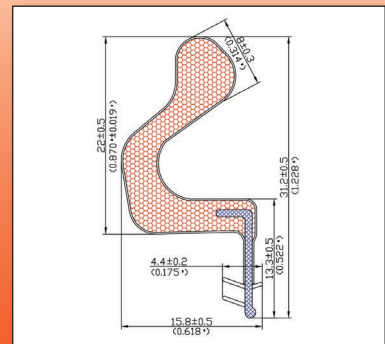
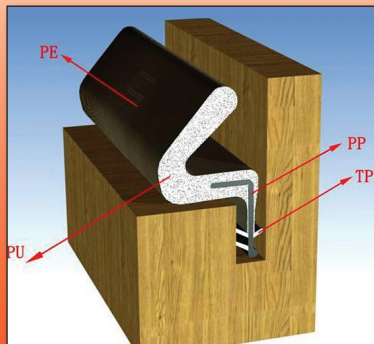
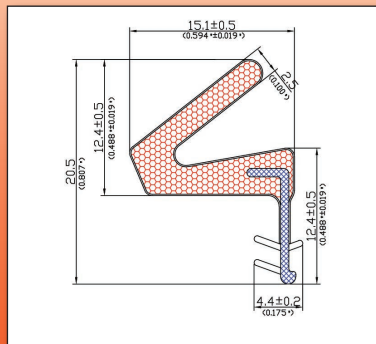


Hinge & Barn Door Hardware in Multiple Designs & Finishes

Major Product Categories:

Hinge, Plate, Track, Bag Kit, Barn Door Hardware, Weatherstrip & Accessories

High Quality Weatherstripping & Corner Pad for Fire Rated Doors



**UL Category H & J Certified
AAMA Class A Certified**



895 S. Rockefeller Ave. #104, Ontario, California 91761

Tel: (909) 786-0629 Fax: (909) 605-1806

www.VantagePointIndustries.com

THE GLASS YOU ARE LOOKING FOR AWAITS YOU IN MILAN

VITRUM | FIERA MILANO RHO | 5-8 Sept 2023

MILAN GLASS WEEK | 4-10 Sept 2023

THE ITALIAN
**GLASS
WEEKS**

VISION
MILAN GLASS WEEK
focusing on a sustainable future



www.vitrumlife.com
facebook.com/VitrumMilano
twitter.com/vitrummilano
linkedin.com/company/vitrum-srl
instagram.com/vitrum2023/

Secretariat
Via C. I. Petitti 16
20149 Milan Italy
Ph. +39 02.33006099
Fax +39 02.33005630


be
madeinitaly.gov.it



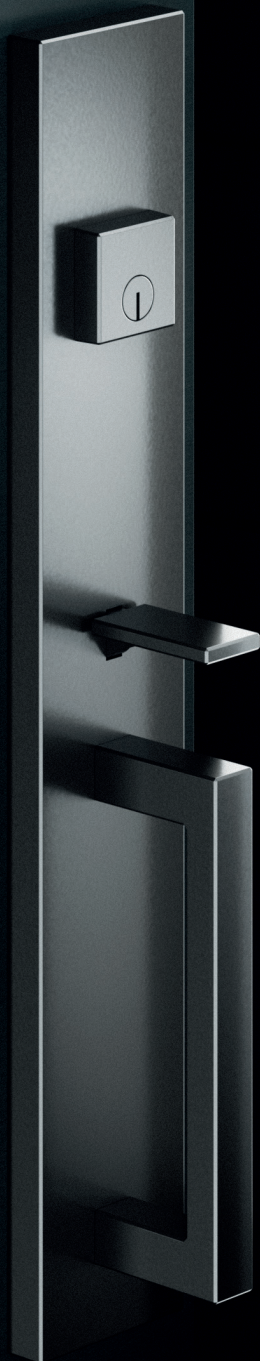
Ministero degli Affari Esteri
e della Cooperazione Internazionale

ITA
ITALIAN TRADE ASSOCIATION
P.O. Box 1000 - 20121 Milano
Tel. +39 02 574911 - Fax +39 02 57491200
www.ita-italia.it


FIERA MILANO



WINDOW TECHNOLOGY
DOOR TECHNOLOGY
AUTOMATIC ENTRANCE SYSTEMS
BUILDING MANAGEMENT SYSTEMS



The Only Automatic
Multipoint Gripset

 **BERLIN**



Ferco Architectural Hardware Inc.

T. 800 927 1097
T. 888 454 0161

ferco@ferco.ca
ferco.ca | g-u.com

Securing technology for you



Advertiser Index

Advertiser	Page	Phone	Website or email address
AmesburyTruth	13		amesburytruth.com/attraction
AmesburyTruth	55		email: innovation@amesburytruth.com
Anthony Innovations	8-9		email: salesna@anthonygroup.net
Combilift	35		combilift.com
Eko Okna	5		ekookna.us
Endura Products	43	800/334-2006	enduraproducts.com
Erdman Automation	19	763/389-9475	erdmanautomation.com
Ergo Robotic Solutions	23	518/796-2179	ergorobotic.com
Ferco Architectura Hardware	33, 59	800/927-1097	ferco.ca
Flexscreen	15		dontbuyflexscreen.com
GED	11	330/963-5401	gedusa.com
GlassBuild America	61	704/442-4890 ext. 142	glassbuild.com
Integrated Automation Systems	30-31	330/954-3070	email: ryan@iasmachinery.com
Joseph Machine Company	37	717/432-3442	email: sales@josephmachine.com
Lawrence Industries	21		lawrenceindustriesinc.com
Nova Plastech	20, 24	888/320-4433	novaplastech.com
ODL	27		blilnkblinds.com
PortaPivot BV	38-39		portapivot.com
Quanex Building Products	17, 64		quanex.com
Roto North America	3, 49	800/243-0893	rotonorthamerica.com
Stürtz Machinery	7, 51	330/405-0444	sturtz.com
Sullivan Hardware	45	954/522-2358	email: info@sullivanhdw.com
Urban Machinery	29	800/263-4216	urban-machinery.com
Vantage Point Industries	2, 57	909/786-0629	vantagepointindustries.com
Vision Hardware	25, 63	800/220-4756	visionhardware.com
Vitrum 2023	58		vitrumlife.com
Wakefield Equipment	12, 14	440/899-5658	wakefeldequipment.com

WINDOW+ DOOR WEEKLY

**Delivering the Fenestration Industry to Your Desktop,
Tablet or Smartphone**

Go to WindowandDoor.com and click the "Subscribe" tab at the top of the home page.

2023

OCT 31 - NOV 2

Georgia World
Congress Center
ATLANTA, GA

20

YEARS
OF GLASSBUILD

GlassBuild AMERICA

THE GLASS, WINDOW & DOOR EXPO

BIGGER BUSINESS HAPPENS AT GLASSBUILD.

STAY AHEAD OF THE INDUSTRY, CODES, TRENDS,
AND YOUR COMPETITION AT GLASSBUILD AMERICA.

THE TRADITION CONTINUES

Join the rest of the industry and see why more glaziers, fabricators, window & door manufacturers, dealers and suppliers reunite at GlassBuild America—more than any other conference, trade show or expo in the Western Hemisphere—for the buying/selling, education, networking, and supply chain solutions they need to grow and thrive.

THE BIGGEST GLASS & FENESTRATION EVENT OF THE YEAR

MORE EXHIBITORS
MORE ATTENDEES
MORE OPPORTUNITIES



PRESENTED BY



WITH ASSOCIATION SPONSOR



GLASSBUILD.COM

FrameWork



READ MORE AND SEE PHOTOS AT WINDOWANDDOOR.COM



Top: Fixed windows help introduce natural light to the space. **Right:** Grille patterns are applied to both sides of the window to create full divided lites. Photos by Mandi Gubler.

A Quiet Space

WINDOWS HELP A HOMEOWNER REDUCE NOISE AND INCREASE EFFICIENCY IN HER HISTORIC BUILDING

Project: The Merc; Santa Clara, Utah

Products: A-Series casement, specialty shape fixed windows and E-Series patio doors from Andersen Windows & Doors

Description: Seeing new life as a single-family home, the “Merc,” formerly the Santa Clara Mercantile Co., has one major flaw;

it lacks sound abatement. Owner Mandi Gubler sought to create a quieter home by replacing the industrial building’s original single-pane windows with A-Series windows with full divided light and an energy spacer upgrade from Andersen Windows & Doors. The newly installed windows provide improved interior acoustics, and the window series match the historic style of the Merc.



ONLY ON
WINDOWANDDOOR.COM

Understanding the NFRC Window Label

By Stephen Aki

The NFRC label, issued for factory-built fenestration, or the label certificate, issued for site-built fenestration, provides performance data for the following:

- **Thermal transmittance (U-factor):** Reported in units of BTU/°f.hr.ft², the U-factor is a measure of the thermal transmittance of the window assembly, or how well insulating the window is.
- **Solar heat gain coefficient (SHGC):** The SHGC is a rating from 0 to 1 that displays how much heat gain will occur through the insulating glass.
- **Visible light transmittance (VT):** Visible transmittance is a rating from 0 to 1 that displays how much light will be seen through the glass.
- **Air leakage (AL):** Air leakage reflects how much draft you may experience with a fenestration product.

Read more at
WindowandDoor.com





Casement Hardware On Time, ALL the TIME.

Contact Vision to visit our
130,000 sq/ft state-of-the-art facility.

Vision Hardware offers a complete line of casement and awning hardware available for next day pick up or shipping from any of our 5 warehouse locations. Our casement and awning systems are designed to be "Plug and Play" to your existing fabrication without the need for any modifications. Vision will evaluate your drawings, install our system into your sample unit and support the conversion at your location to ensure a smooth transition.

Best of all, Vision will inventory your components to your supply agreement, with guaranteed stock available.

Vision Hardware casement parts have been tested and certified in accordance with AAMA 901-10 and AAMA 904-09, and are listed on the AAMA approved product list.

Vision's wide selection, available in a range of colors and styles, easily accommodates any casement or awing design.



Visit visionhardware.com
and request samples today.



Click the play
button to watch
a bonus video



(800) 220-4756 • www.visionhardware.com

A Part of Something BiggerSM

Quanex

TAKING SECURITY AND PERFORMANCE TO THE NEXT LEVEL

PET AND SECURITY SCREEN OPTIONS FOR OEM PARTNERS

As a quality screens producer, Quanex is committed to helping make a difference in the markets we serve each and every day.

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.



KNIFE SHEER AND PRY RESISTANT



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

MESHTEC
Advanced Screen Systems