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Equipment &
Automation
P. 34

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P. 44

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P. 50



THE TRENDS ISSUE

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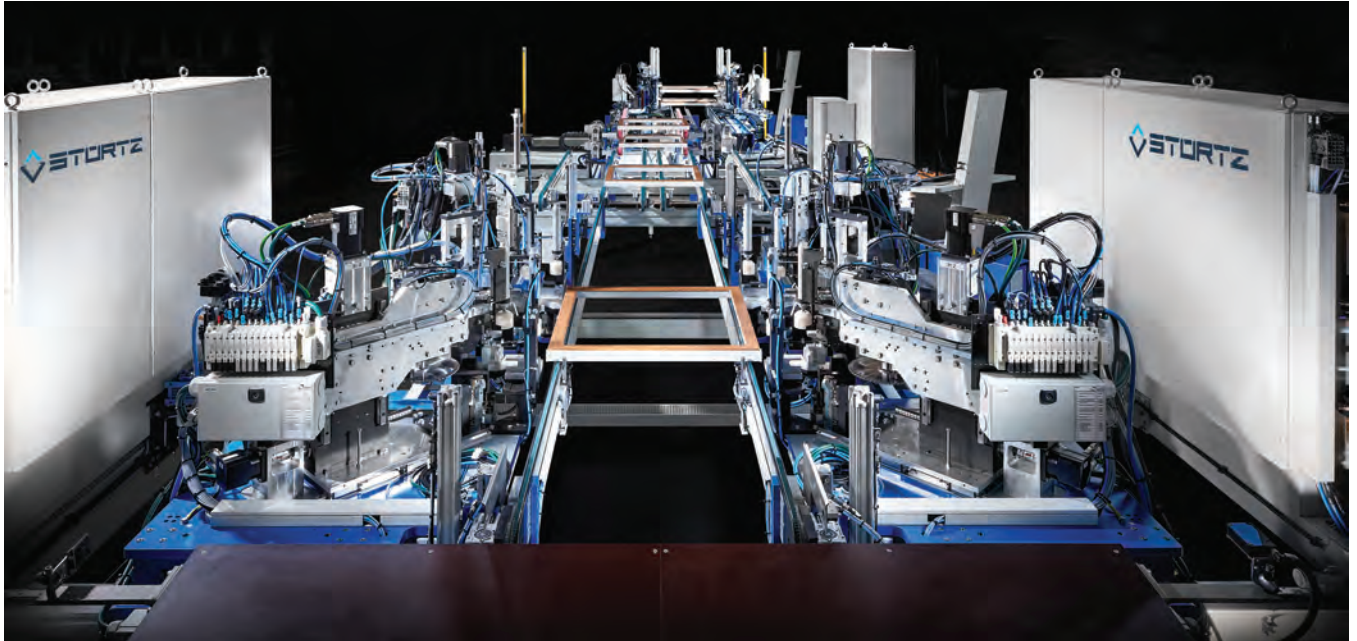
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A M E R I C A** 
THE GLASS, WINDOW & DOOR EXPO

Residential fenestration coverage, from source to sale // windowanddoor.com // Vol. 28, No. 4 // August/September 2020



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28. GlassBuild Connect: September is for Solutions

An exclusive preview of what to expect from the online experience from the organizers of GlassBuild America: one month of industry-focused programming, 22 days of content targeting all industry segments, five daily content themes and 330+ companies displaying products and solutions.

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On the Cover: This issue takes an in-depth look at the equipment, technology and products that shape the residential fenestration industry. Pictured: Sturtz Machinery's Turbo Sash Line.

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As the official and only fenestration-focused media partner of GlassBuild America, Window + Door staff turns its efforts to building a virtual library of the fenestration side of the event, hosted this year as GlassBuild Connect, on GlassBuild.com. Powered by parent company the National Glass Association, our staff of content creators and experts teamed up with exhibitors, educators and industry association partners to provide dynamic content throughout the month of September. Every weekday, registered visitors can visit GlassBuild.com to:

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NGA Cancels GlassBuild America for 2020; Announces GlassBuild Connect Marketplace

The National Glass Association announces that GlassBuild America, slated for Sept. 15-17, 2020, in Las Vegas, has been cancelled. The event will return in 2021, Sept. 13-15 in Atlanta.

The State of Nevada currently prohibits public gatherings of more than 50 individuals in any indoor or outdoor areas. The Las Vegas Convention and Visitors Authority (LVCVA) does not anticipate that this limitation will be increased in a manner to allow large groups to gather in the Las Vegas Convention Center exhibit halls and meeting rooms in time for NGA's September 2020 event.

In anticipation of this outcome, NGA has worked behind the scenes to produce an online marketplace called GlassBuild Connect: The Glass & Fenestration Online Experience. GlassBuild Connect will showcase exhibitors' products and services for buyers and prospects to explore online during the entire month of September. Online attendees will also have access to educational events, economic and trends forecast presentations, product demonstrations, and other informative programming throughout the month. *(Editor's note: go to page 28 for detailed information on GlassBuild Connect.)*

WinDoor Moves Online in 2020

Fenestration Canada announced that WinDoor is canceled for 2020. In lieu of the live event, Fenestration Canada will launch Marketplace by WinDoor, an online trade show that will be available for 12 months from launch. The event organizers also reported it would host WinDoor Week Online in November as part of the platform and plans to stream live events every month, including social events.

Fenestration Canada intends to host WinDoor in Toronto in fall of 2021.

USMCA Becomes Official

Effective July 1, the United States-Mexico Canada Agreement, negotiated to replace NAFTA, officially entered into force. ICC Evaluation Service certifies products in all three USMCA markets and will continue to offer evaluation services in North America under the agreement.

In the area of conformity assessment, where accreditation is and will continue to be a government function in both Canada and Mexico, manufacturers will have the option of using ICC-ES. ICC-ES is accredited by the American Association for Laboratory Accreditation and the ANSI National Accreditation Board, Standards Council of Canada and EMA for Mexico with relevant scopes in all three countries.

ICC-ES is available to help streamline the process and provide a one-stop-shop for testing, listing and evaluation service.

Associations Make a Call for Action Against Injustice

The National Glass Association shares the deep concern of many Americans about the events in Minneapolis and across the country. NGA released the following statement:

"We grieve together at the horrifying death of George Floyd. And, we do not condone violence or destruction of public or private property. We must not allow the unlawful actions of a few to overtake the vital conversation and examination about entrenched inequality and its impact on society, our companies, and our country."

As a member of the National Association of Manufacturers, NGA supports the pledge NAM made for action against injustice as well. NAM's executive committee unanimously voted in June to pass the Pledge for Action, an 11-point commitment plan for manufacturers to advance justice, equality and opportunity for black people and all people of color.

Bringing the Outside In



Our concept of home is changing, and as it changes, so should your hardware.

AmesburyTruth has addressed the need for bigger, bolder windows with our new Max Casement Hardware System. Designed for large casement window applications, our hardware can accommodate sashes weighing up to 140lbs and 48" x 96" in size. The Max System is based on Heavy Duty and standard platforms, so it can accommodate all standard Encore™ and Maxim™ components.

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Encore™ Lock



Maxim™ LP Lock

IN THE NEWS:

Month in Review

The National Association of Home Builders and the **National Association of Realtors** launched a new joint initiative, Home Performance Counts. The resource intends to educate consumers on the qualities and benefits of high-performance homes and facilitate communication on home performance between buyers, builders and real estate agents.

SoftLite introduced a new take on its classic logo that is designed to celebrate its legacy and signify the company's commitment to future growth.

PGT Innovations recently hired more than 100 new employees at its North Venice, Florida-based headquarters. Positions that were filled include manufacturing technicians, fabricators, material handling technicians and drivers.

Chris Dimou, **Roto Frank of America's** president and CEO, and Adam Bristol, manufacturing engineer, recently judged the 2020 Connecticut Invention Convention, of which Roto Frank of America was a contributing sponsor.

North Star Windows & Doors shifted production processes in June so that it could manufacture up to 3,000 face shields per week.

Marvin also pivoted, working with the University of Minnesota to make a specialized ventilator box for use in ICUs and surgery. ■



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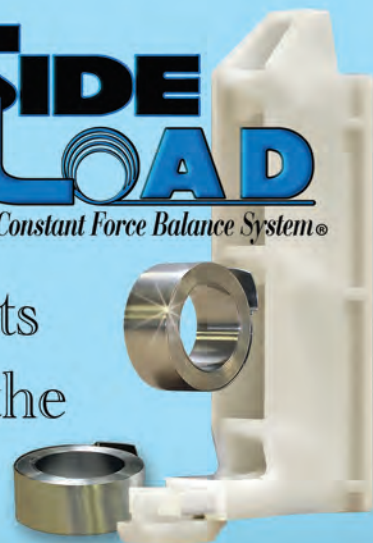
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A Year Without GlassBuild America



**By Emily
Kay Thompson**

I joined the NGA and Window + Door staff in September of 2014. My second day at my new job entailed watching GlassBuild America in Las Vegas come to life. I was coming in with more than a decade of tradeshow under my belt, which gave me the experience to confidently step on the show floor, even as a fenestration rookie. It also gave me the perspective to realize how different this show was from all the others I attended, and not just in terms of the products, content and exhibitors. There was a distinct energy.

Everyone was into it. Excited to be there. Eager to get on the floor and see what was new. Exhibitors were tenured and generous with their time and knowledge—and not just with editors. I knew I made the right decision to join this industry and the organization that created an event that stirred such an energy.

GlassBuild America has since set a pace and rhythm to my years and my work at Window + Door. It is the most important event I attend every year. It is my ultimate source of insight into the trends that frame our market. The event embodies the collaboration and innovation characteristic of the industry.

Everything about this year has felt strange and it will feel even more foreign as we move into the fall without GlassBuild America to mark the time. But everything about this year has also forced us to adapt. We've discovered new ways to do the things we love to do and the things that we must do.

I will miss seeing your faces, hearing your stories and seeing firsthand what you've been working on to make the industry better, more efficient and more productive. But I'm also excited to be part of the team that is creating a month-long fenestration event to bridge the time until we can all be under the same roof in Atlanta in September 2021.

GlassBuild Connect will present 30 days of fenestration industry innovations, education and product introductions throughout this September. While COVID has derailed so much for our industry, it hasn't stopped innovation, research and development, market trends and more. These are the stories GlassBuild America exhibitors will be sharing to a global audience throughout September. I hope you'll be a part of it. ■

“

WHILE COVID HAS DERAILED SO MUCH FOR OUR INDUSTRY, IT HASN'T STOPPED INNOVATION, RESEARCH AND DEVELOPMENT, MARKET TRENDS AND MORE. THESE ARE THE STORIES GLASSBUILD AMERICA EXHIBITORS WILL BE SHARING TO A GLOBAL AUDIENCE THROUGHOUT SEPTEMBER AT GLASSBUILD CONNECT.

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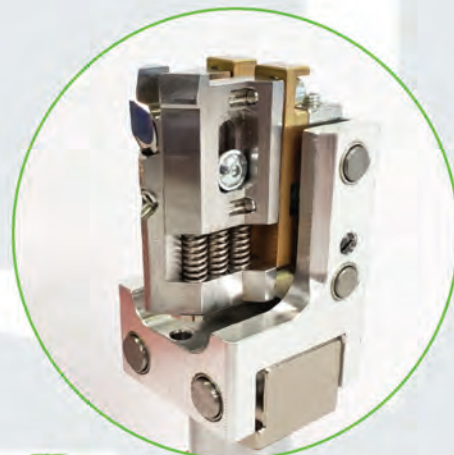
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Taking Stock

Perspective on how the industry has changed ... and how it hasn't



By Eric Thompson

In a regular year, I travel quite a bit. This year has been different. I'd last traveled in early March. When I finally took my first trip to Quanex headquarters from my home in Alabama in late June, I had the opportunity to reflect on how the pandemic has impacted our industry. I thought about where we collectively stand in our ability to find shared success throughout the remainder of the year.

It's easy to start by considering what has changed in our industry in the past few months. There's plenty. Shop floors have, of course, radically altered the way they operate with the implementation of new health and safety measures to stop viral spread.

As an industry that strives to put safety first in all that we do, it's been remarkable to witness this shift as everyone does their part to keep workers healthy while continuing to fulfill orders. My sense is that things will continue this way for a while. No organization wants to see their staff getting sick.

We'll see how this new normal continues to influence how manufacturers make quality products—I suspect automated equipment will have a big role to play, as it helps minimize touchpoints and can help workers maintain their distance.

The industry's ongoing labor shortage has been exacerbated in some ways by the pandemic, too, and some organizations are finding it even more difficult to find good people. Once we get over some of the more immediate economic uncertainty, we might be seeing more investment here.

What else? GlassBuild America is officially cancelled for this year, as restrictions remain in place in Las Vegas. This issue's Observation Desk on page 10 pays a nice homage to the event and offers information about the GlassBuild Connect that will be taking place online in September.

(Editor's note: See page 28 for more about the online experience.)

This is emblematic of the limited face-to-face, in-person interactions most of us will be having with colleagues and customers throughout the immediate future—and of the need to get innovative with how we connect and collaborate as an industry.

Elsewhere, there are a few things that haven't changed. Many window and door companies found themselves deemed "essential" in various parts of the country and, as such, so were many of their suppliers. And, while there have absolutely been economic impacts, things haven't approached the lows that we might have expected a few months ago. The building and construction markets in general have continued chugging along, and fenestration pros have kept the pace.

I would say that kind of resiliency in the face of uncertainty is another element that hasn't changed over the course of this year. Our industry buckled down, did what we needed to do, and it's looking like we'll weather the storm. Orders are picking up; we're making do with production, deliveries and construction with the proper precautions. There's still some looming uncertainty, of course, but right now I'm confident we're in a good place looking ahead. Here's hoping we'll make the best of the rest of this year. ■

Eric Thompson is the commercial sales manager for Quanex Building Products. Email him at eric.thompson@quanex.com.

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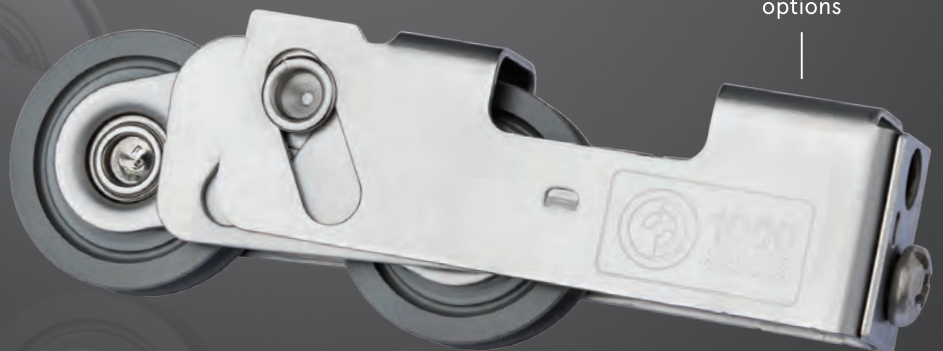


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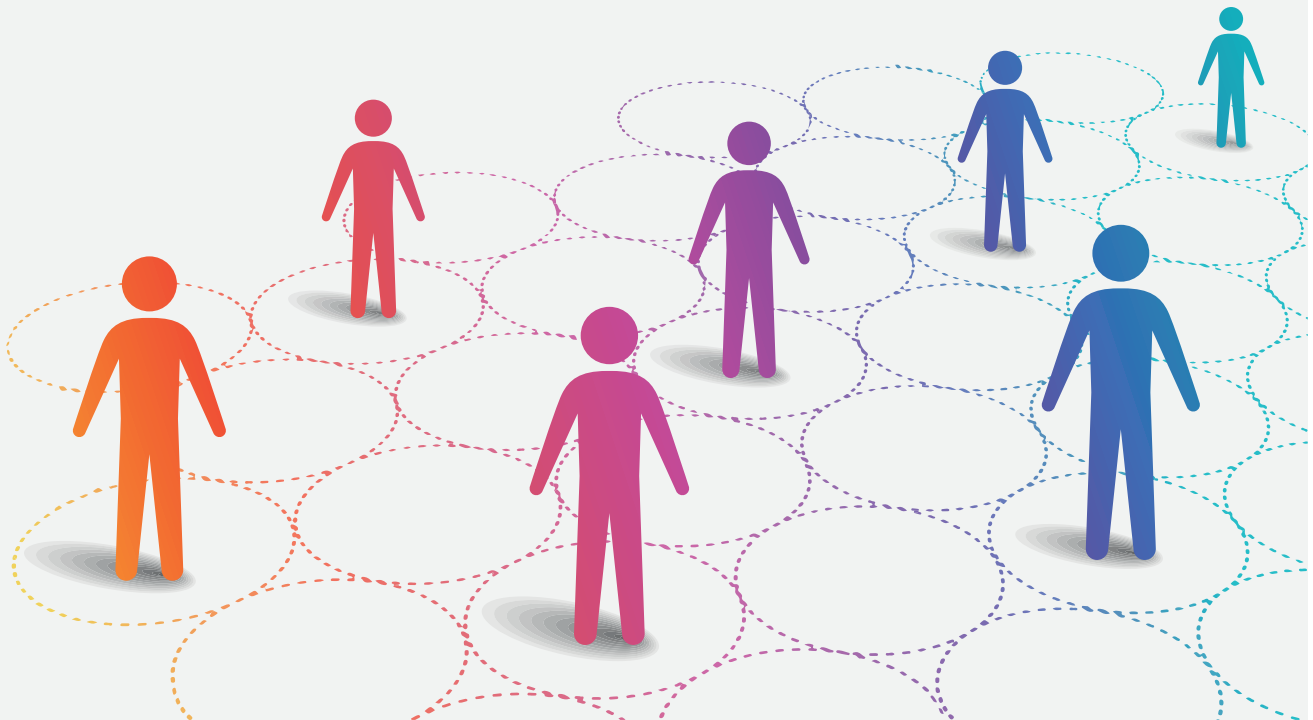


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10 Tips for Safer Factory Floors

Health and safety considerations for manufacturers during COVID-19



By Katy Devlin

“Something has fundamentally and irrevocably changed for manufacturers. How manufacturers think about operations, what they make and how. Concerns over safety, flexibility, agility,” says David Brousell, executive director, manufacturing leadership for the National Association of Manufacturers.

During a recent NAM webinar, several expert panelists offered tips to manufacturers as they institute health and safety protocols at their plant facilities. The panelists included Carolyn Lee, executive director of The Manufacturing Institute; Danny Smith, vice president, industry advisory and principal, Industrial Sectors, Ceridian; and Mark Jules, global vice president, Smart Spaces and Video Intelligence, Hitachi.

“We look at the current situation in three ways: containment, prevention, compliance,” says Jules. Manufacturers can institute measures to contain the virus by identifying individuals who might

be infected; prevent spread by instituting social distancing and other safety policies, and cleaning work areas; and comply with privacy protections to protect employee identities.

While many manufacturers implemented procedures over the spring and summer, the recent surge in positive tests in a handful of states suggest that the following 10 tips from the panelists are still relevant to the industry.

#1 Screen Employees

Preventing spread of the coronavirus at a factory begins at the front door, say panelists. They recommend manufacturers limit points of entry and conduct temperature screening of everyone entering a facility. Some manufacturers are also using thermal imagers in other areas of the plant to identify people with elevated temperatures.

Employees with elevated temperatures should “go through secondary testing and, if need be, be

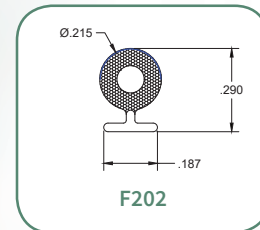
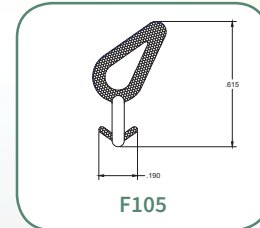
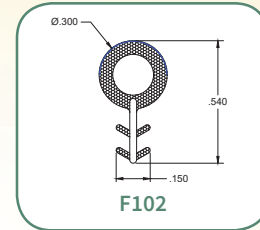
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Software facilitates social distancing, contact tracing on the jobsite and factory floor

BY NORAH DICK

The Centers for Disease Control still recommends that everyone, including workers, maintain a distance of six feet apart. Workplaces should also have a plan for if/when employees become sick. Contact tracing—finding which employees a sick worker has come into contact with—is an important component of this plan. In response to these new difficulties, tech companies are developing several potential solutions for the enforcement of social distancing, as well as contact tracing for sick employees.

Smartvid.io

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The company has adapted its safety-focused software solutions to account for social distancing on the jobsite. Its artificial intelligence platform, “Vinnie,” is designed to act as a “virtual safety manager,” and can detect risk factors, including lack of PPE, and now, the proximity of workers. Vinnie reviews and analyzes photo and video recordings to identify these hazards.

Weever

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On its website, this developer identifies potential risk factors in the factory, including the exchange of paper records and face-to-face communication during shift huddles. Weever creates software that is accessible on tablets or mobile devices, which can then be placed strategically along the manufacturing line, say officials, connecting workers through

devices that can be sanitized, unlike paper. The company's software also offers messaging, workflow management and video calls that facilitate socially distanced organization and collaboration.

Genda

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This construction-focused software solution is designed to help companies navigate both social distancing and contact tracing on the construction jobsite. The process relies on smartphone-based applications installed on worker phones and IoT sensors that allow companies to create a real-time location system for employees. Other features include a daily personal symptom assessment and location documentation, facilitating contact tracing.

OxBlue

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A tech company offering construction camera services, OxBlue also expanded the use of its technology to provide AI-enabled social distancing capabilities. The technology provides proximity warnings for employees on the jobsite when they come within six feet of each other. Its camera services include time-lapse still images of the jobsite or video streaming.

Proximity Trace

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The platform is offered by Triax, which creates IoT solutions for construction and industrial sectors. Social distancing and contact tracing is accomplished through wearable tech called a TraceTag that can be affixed to hard hats or worn on the body. It will emit alerts in real-time if workers become too close. The tag also passively collects information on worker interaction to allow for contact tracing.

sent home, and proper action be taken based on where they have been,” Jules says.

#2 Protect Employee Privacy

With any screening procedures, manufacturers must ensure they are complying with privacy requirements. Jules recommends companies use tools that do not identify individuals, particularly if data is being shared with outside parties. He also notes that managers should communicate tracking and screening procedures before they are instituted. “Start with education. This is what we are doing and why we are doing it,” he says.

#3 Provide PPE

Companies must ensure employees have access to proper safety gear. “PPE will be a fixture in everybody’s day-to-day life and operations for quite some time,” says Lee. “The level of protection will depend on your company’s normal level of protection and what the products are that you’re making. PPE will be an essential part of response and recovery.”

#4 Adjust Shift Schedules

Manufacturers should consider making shift changes to limit the number of employees onsite at any given time. One solution is no crossover shifts, “so that the first shift doesn’t interact with the second shift. The first group clears out before the next group comes in,” says Lee.

Many manufacturers are also adding flexibility to shift schedules to better accommodate worker needs. “Companies are providing flexibility where possible so employees can take care of families, take care of children at home, with schools closed,” Lee says.

To reduce the number of employees in break rooms and eating areas, manufacturers should rotate break times, says Lee. Companies can also consider providing access to additional areas in the facility to ensure workers are able to maintain safe social distance.

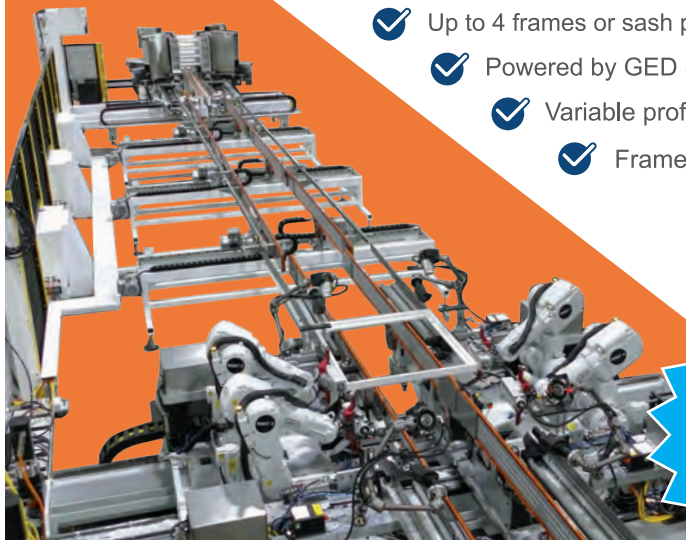
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#5 Educate and Train

Employees must be educated about new safety and health protocols. “Over-invest in communications right now,” says Ceridian’s Smith. Since in-person group meetings are no longer possible, Smith recommends employers use video. “Videos can be highly effective,” he says.

#6 Go Touchless

Many manufacturers are moving to touchless access, including for clock-ins, says Smith. “We have seen a 500 percent increase in customers switching from physical clock punch to offering mobile phone clock-in,” he says. He has also seen an increase in the use of audio assistance features throughout plants as companies move to “de-touch the value chain.”

#7 Add Markings and Barriers

Manufacturers should provide floor markings to indicate safe social

“
MANUFACTURERS SHOULD
CONSIDER MAKING SHIFT
CHANGES TO LIMIT THE NUMBER
OF EMPLOYEES ONSITE AT ANY
GIVEN TIME.
”

distances at workstations. Transparent barriers can be added to provide additional separation.

#8 Perform Thorough and Frequent Cleanings

Facilities must be cleaned regularly, with a focus on regularly touched surfaces. Some manufacturers are instituting more rigorous cleaning measures, such as providing additional air filtration and adding UV lighting. “We’ve also heard discussion of using copper fixtures, as copper has naturally resistant features for viruses,” says Smith.

#9 Automate

The automated manufacturing trend has accelerated in the time of COVID-19, says Smith. The market has seen an uptick in the use of partial automation, in particular the use of cobots—robots that function alongside humans. “If we need to do social distancing, cobots provide a way to help humans and to spread workers out,” he says.

#10 Provide Essential Worker Documentation

In states that maintain stay-at-home orders, workers may require documentation indicating they are essential workers. “Provide employees with letters to show they are essential, so they are able to be in transit,” says Lee. ■

Katy Devlin is the editor-in-chief for Window + Door’s sister publication, Glass Magazine.



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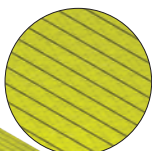
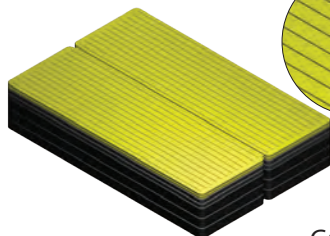
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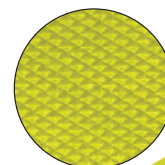
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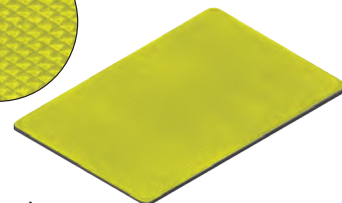
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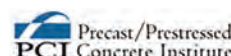
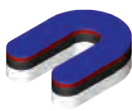
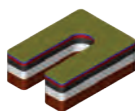
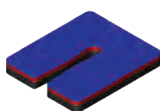
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Energy Code Update

How energy code evolutions will impact residential fenestration



**By Laurie
Cowin**

The National Glass Association's Thirsty Thursday webinar in June, presented by Tom Culp, Birch Point Consulting and NGA technical codes consultant, dissected some of the upcoming energy code evolutions in 2020 on a national and regional level.

International Energy Conservation Code

The IECC is the primary energy code for residential building in the U.S., with the next update coming out in 2021. The fenestration industry likely will not be significantly affected by the changes, in large part "because we negotiated agreements on key items, so they were on the consent agenda and not subject to vote," Culp explained.

Items up for vote before the 2021 adoption shouldn't affect a standard Energy Star-rated window, but will reduce flexibility for non-standard

products, said Culp, including confusing overlapping "backstops" on windows when using trade-off paths. Expect small changes in prescriptive U-factors, such as U-0.30 in zones 3-8 and allowances up to 0.32 in windborne debris regions or in areas with elevations higher than 4,000 feet, to allow for more flexibility in products.

Voting changes also introduced a new maximum solar heat gain coefficient in zone 5. There also is indirect positive pressure for fourth surface low-emissivity and/or triple glazing in the next IECC.

California's Title 24

Work on California's Title 24 2022 edition is underway. Stakeholders are in a series of meetings now and working on case reports with the goal of





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entering the rulemaking phase next year.

Although no official proposals are on the table, Culp pointed to two residential fenestration points:

No new changes for windows will be enacted for single-family homes, in large part because the 2019 edition updated to a U-factor of 0.30 and solar heat gain coefficient of 0.23.

Multifamily might all fall under one standard, regardless of the size. Challenges revolve around how to account for windows in low-rise vs. high-rise, considering different construction, structural requirements and product types. Culp says to expect a draft case report for public review this fall.

He also said that some builders in California are putting in triple-glazed windows so they can lighten up on what Culp described as “dramatic changes” to wall insulation requirements.

3 Updates to the Green Building Standard for Fenestration

BY EMILY KAY THOMPSON

As part of the Window & Door Manufacturers Association's annual Technical and Manufacturing Conference hosted online in June, Michelle Foster, VP, sustainability for Home Innovation Research Labs, provided an update on the 2020 National Green Building Standard. For those unfamiliar, the NGBS is a voluntary above code green certification program and is part of the ICC suite of I Codes. It offers alternative compliance for the IgCC.

Registration for the latest 2020 NGBS opened in mid-April and

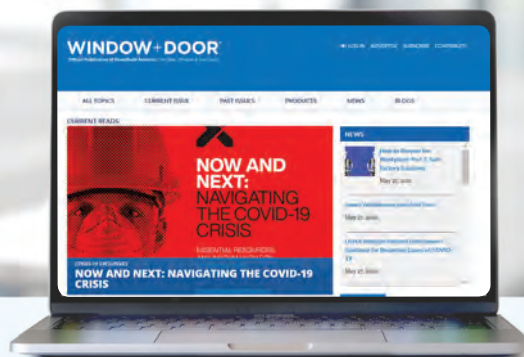
includes many revisions, including an expanded scope and definition of “residential” as well as entirely new updates for homes, townhouses and duplexes. Foster stressed that the program offers rigor and flexibility. “While it's rigorous in compliance,” she said, “there are a lot of ways [for builders] to gain points. They have more choices depending on the needs of the building.”

There were three big changes or new inclusions most relevant to the residential fenestration space:



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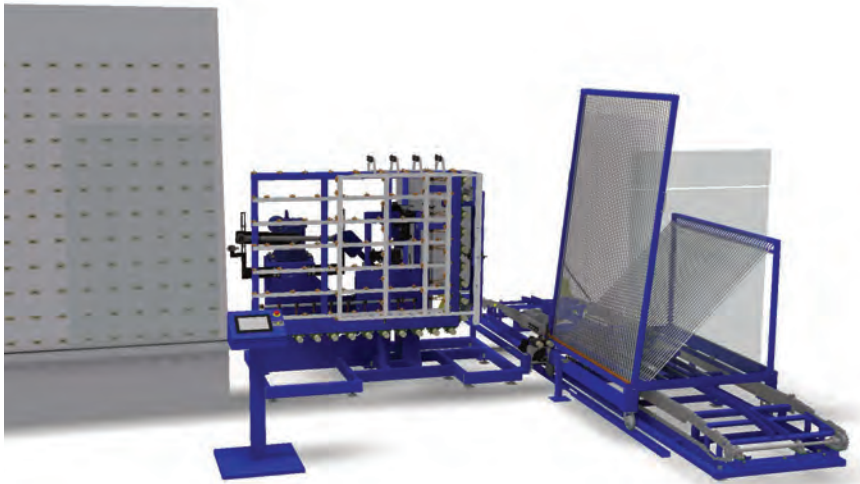
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Canada's Energy Codes

Canada is also being what Culp described as “very aggressive about energy efficiency” and is finalizing the 2020 National Energy Code for Canada for Buildings. The country is committed to a net-zero energy ready model building code by 2030. Some provinces already use their own codes, such as the step

codes in British Columbia and zero emissions building plan in Vancouver. Among other requirements, the code proposes reducing the U-factor in all zones, even beyond what ASHRAE 90.1 and the 2021 IECC requires. Culp says this “aggressive” proposal is achievable, but only for fixed fenestration; it’s problematic for operable windows. ■

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01 Chapter 6, Resource Efficiency, contains significant changes and, among other new attributes, new sections on product declarations and resilient construction. Points are awarded for design and construction practices that “enhance the resilience and durability of the structure.”

02 Chapter 11, which wholly contains all of the certification requirements for remodeling projects, now provides for both a prescriptive and performance path to certification. This, according to WDMA conference participants, may open up new opportunities for fenestration manufacturers.

03 Chapter 12 of the NGBS offers a new certification level exclusively for single-family homes, townhomes and duplexes. The certification is binary; there are not multiple levels as there are for other NGBS certifications, but rather a project is certified or isn't. All of the practices are mandatory and, according to Foster, focus on the most impactful green measures, which she defined in the categories of energy and water efficiency, moisture and mold management, and indoor environmental quality.

A handout from the session noted that window and door products can contribute toward homes and multifamily buildings meeting air leakage and UA requirements in the Energy Efficiency chapter. Also, WDMA noted that it is updating product category rules that will apply to some of the requirements outlined in Chapter 6.

For more information on the 2020 NGBS, visit ngbs.com and/or go to homeinnovation.com/green.

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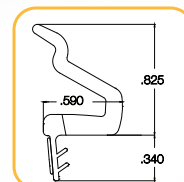
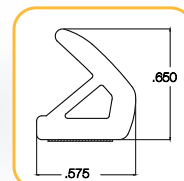
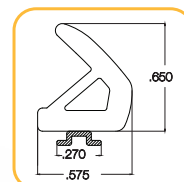
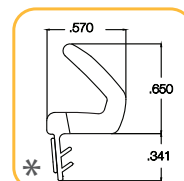
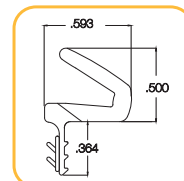
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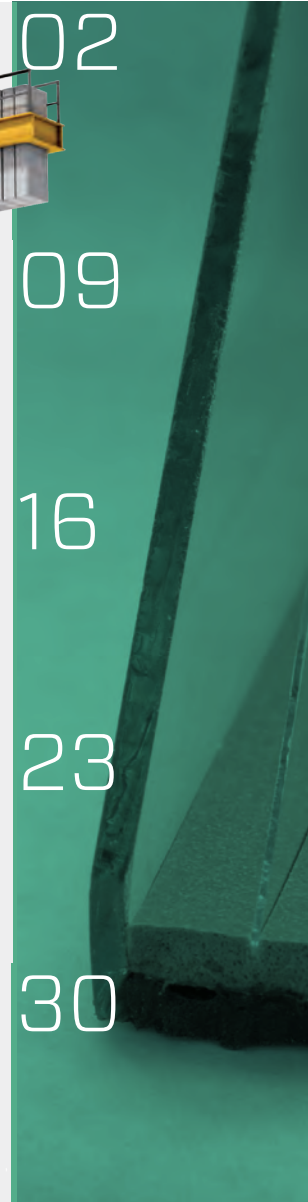
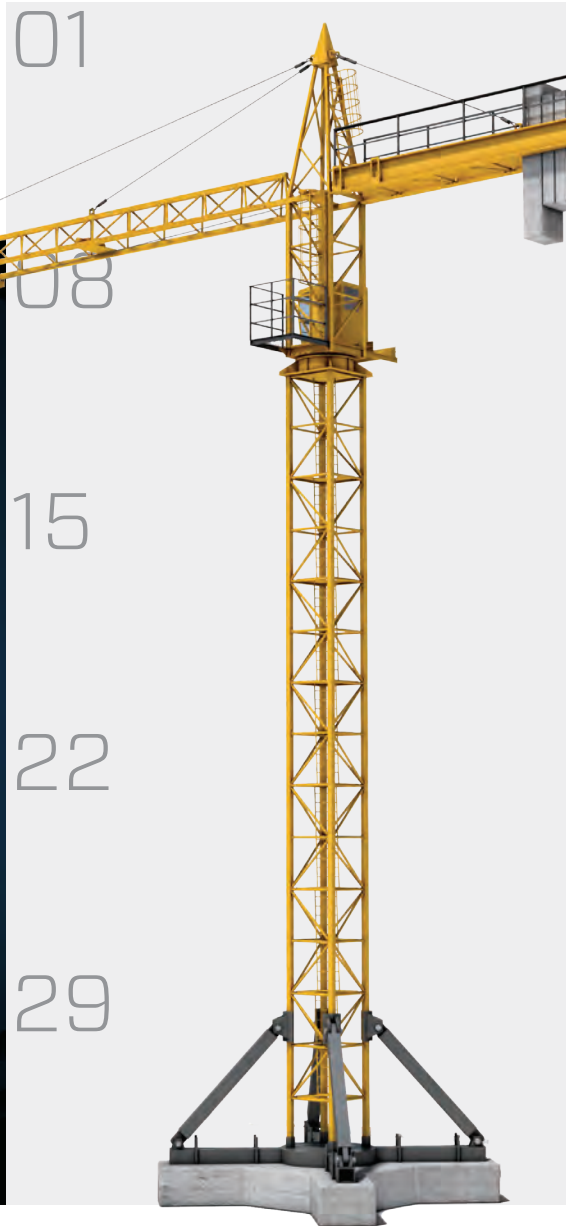
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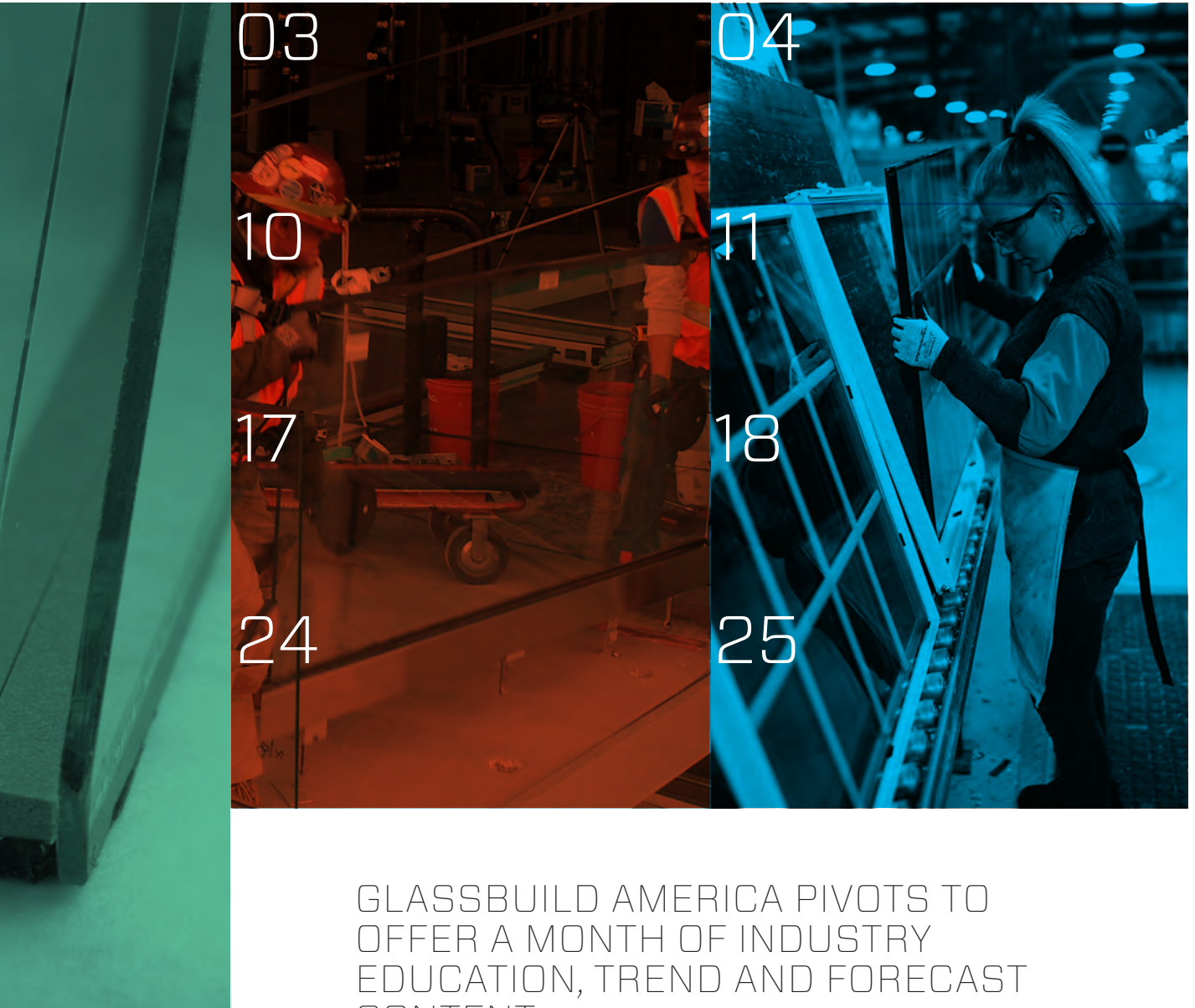
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SEPTEMBER IS

The glass and fenestration industry’s foremost annual trade show, GlassBuild America, moves online in September 2020 for a month of industry interaction, innovation and education. Even in the face of the economic and health challenges of COVID-19, when an in-person show is not possible, the glass industry will have an opportunity to come together for essential learning, problem-solving, connecting, purchasing and more.

For its 2020 reimagined gathering, organizers at the National Glass Association announced GlassBuild Connect. The event, available on GlassBuild.com and its range of email and social platforms, will feature programming every weekday from Sept. 1 to Sept. 30.

Highlighted by day-of-the-week themes, GlassBuild Connect will spotlight each industry segment regularly throughout the month of September. Residential window and door manufacturers will be provided with targeted education, and product and trend information.

“GlassBuild America has been con-

necting buyers and sellers for decades, and we’re not letting COVID-19 break that connection,” says Nicole Harris, NGA president and CEO. “As the trade-show moves online in 2020, the leading glass and fenestration industry suppliers from around the world showcase their innovations and solutions in the midst of rich education and trends programming from NGA’s content experts.”

Innovative solutions

GlassBuild Connect will present the latest production innovations from more than 330 exhibiting companies. Companies from all over the world in

#OutlookTuesdays

That “crystal ball” is fuzzier than ever with changing COVID-19 prescriptions. GlassBuild Connect will spotlight the latest industry forecasts, leading indexes, major market trends and more that will shape 2021 and beyond.

#PerformanceWednesdays

The design and construction industry continues to seek better-performing fenestration solutions. Performance Wednesdays are a deep dive into the products, systems and solutions that will help companies respond to challenges and opportunities.

#InstallationThursdays

The role of glazing contractors continues to evolve and advance as glass sizes are getting larger, building envelopes are becoming more complex and construction processes more digital. Installation Thursdays will keep glaziers up to date on trends, and help company leaders address challenges in the field and in the office. On the residential side, GlassBuild Connect dives into best installation practices and mastering the discipline.

#FenestrationFridays

Fenestration Fridays provide content and learning opportunities for the residential window and door marketplace. Education and other programming will target companies manufacturing fenestration systems.

5 Days, Many Ways

Daily content will be presented through a variety of content types, including unique articles and blogs, webinars, videos, recorded demos, product highlights, town hall and panel discussions, and more.

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every glass and fenestration industry segment will present new product solutions in GlassBuild Connect’s sortable and searchable product database. Beginning on Sept. 1, registered visitors to GlassBuild.com will be able to access hundreds of product features, with photos, videos and additional downloadable documentation, such as spec sheets.

Registered site visitors will be able to check out Daily Demo videos, available on the homepage. The videos will offer users a closer look at emerging technologies and new product offerings.

The site will also feature listing pages for all exhibiting companies. The pages

will provide registered visitors with essential information about companies, direct contact information and links for the companies with products visitors want to know about. Users can communicate with exhibiting companies as they see fit, rather than using formatted virtual “rooms.”

Registration

The NGA offers free registration and access to GlassBuild Connect for all industry visitors. To register, visit GlassBuild.com.

Users will be asked to login and register if they already have an account for NGA’s

customer dashboard on glass.org, or they can create an account to register. The free registration will unlock the GlassBuild Connect marketplace and programming throughout the month of September.

Access to an exclusive industry economic forecast from ever-popular presenter Connor Lokar, program economist at ITR Economics, valued at \$75, will be available through a special promo code provided to customers by GlassBuild Connect exhibitors.

Visit GlassBuild.com to register for this event and visit the site daily throughout September for dynamic content that is updated daily.



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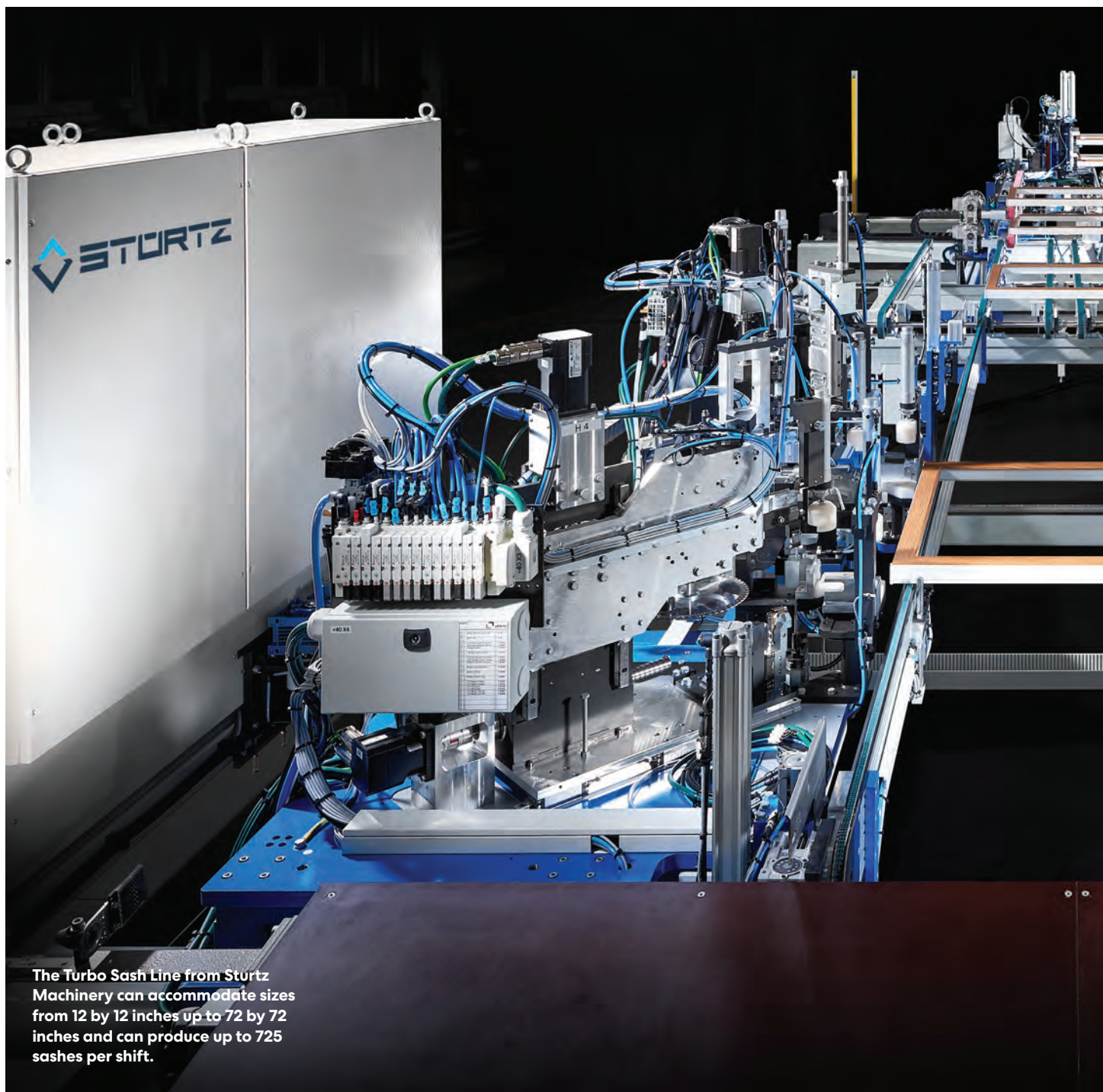
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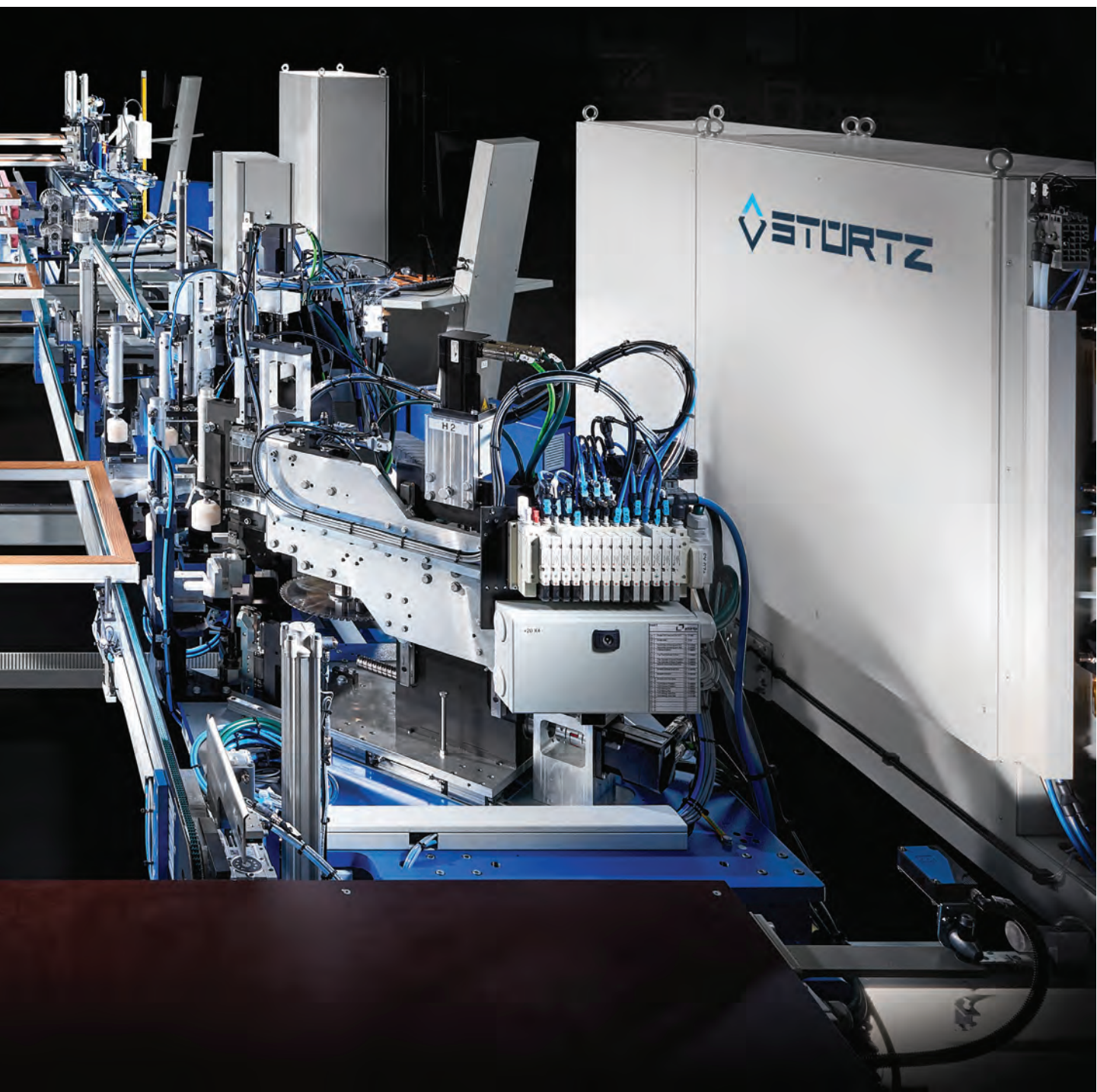
Industry

GlassBuild America is the ultimate showcase of industry trends. Although the show couldn't go on in Las Vegas this year as planned, as the exclusive fenestration media partner of the event and this year's online extension, Window + Door brings the insights and innovations of our exhibitors to light in this comprehensive Trendhunter portfolio. The next pages capture some of the essence of the event. GlassBuild Connect, our online experience, brings the other elements into focus during a time when a physical event is not possible. Read on here for an in-depth look at the equipment, technology and products that shape our industry. And, join us online at GlassBuild.com beginning Sept. 1 to continue the conversation.



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Equipment & Au



Automation

Today's machinery is reaching a new level of maturity to further address user needs such as automation, efficiency and labor concerns

By Laurie Cowin

Right: High-speed machines have been enjoying a boom in popularity in recent years. Erdman Automation says high-speed machines are among the innovations helping companies recognize increased units per person, social distancing, lower head count, safer application, quality improvements and reduced floor space.

Opposite: The Witte Hot Air Bending Oven BHL-USA 450 offers capacity for bending from both ends of the oven.



Machinery is gaining increasing time in the spotlight in recent years thanks to automation and its increasing capabilities, especially in light of the chronic workforce shortage. Since the coronavirus pandemic altered the world earlier this year, machinery is even more important for manufacturers to keep up with demand while adhering to social distancing and other safety measures to protect their human bandwidth.

The product category has spent the past years in rapid development and,

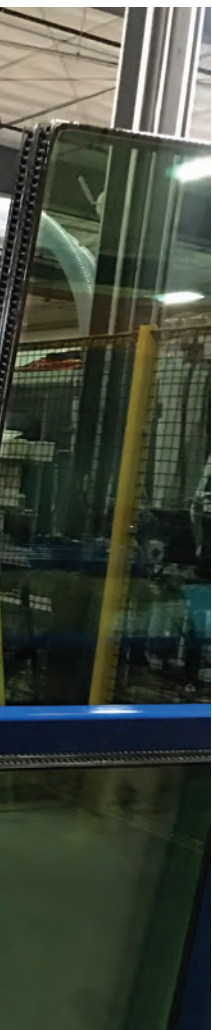
although that development hasn't slowed, with it is coming a maturation of the market. Factories are hyper-focused on high-performing machinery that seamlessly integrates with the other systems in place, delivers accurate results and is efficient enough to do more with less.

"Equipment has become more sophisticated in many aspects and with more customers interested in automation," says Tony Mehringer, vice president of sales and marketing, Sturtz Machinery. "Seamless integration between multiple traditional fabrication processes has become more important."

The industry as a whole is moving toward machinery automation and singular operation of equipment, says Sarah Colberg, sales manager, Witte North America. "As machinery manufacturers, we were already feeling the push toward being innovative with automation; however, the pandemic has catapulted all of us into new and exciting territory. We don't have to reinvent the wheel, but we can certainly enhance it."

Machinery innovations

Quality and safety are always of utmost importance, says Morgan Donohue, president of Erdman Automation, but



The Next Big Thing

Sources took time to look to the future and answer, "What is the next big thing?"

"At FeneTech, we are dedicating a large portion of our time to building better factories for our customers. With FENml (Fenestration Manufacturing Language), we can implement better communication up and down the supply chain. These further advancements will ultimately lead our customers toward evolving into a Digital Factory. In addition to increasing communication on the shop floor, our customers want to improve integration and communication beyond the walls of the building. This includes notifications to outside resources, mobile apps for tracking deliveries, and tighter integration with vendors." —*Dave Miller, group manager – business development executive, FeneTech*

"We have to continue not only to produce at greater speeds, but with fewer people. Those with the best units-per-person numbers will be the winners. We are working on making highly automated solutions using just one person in a small space." —*Morgan Donohue, president, Erdman Automation*

"Continued automation in areas that have traditionally been manual operations." —*Tony Mehringer, vice president of sales and marketing, Sturtz Machinery*

"Through EmmegiSoft, our company's software group, we have enhanced our machinery on the digital front as well. We have championed more powerful, simplified software, like 3D Driver CAD, which automatically translates three-dimensional designs directly into a machine's operation language. Companies using this can streamline the 'concept-to-production' process, drastically reduce programming time, as well as optimize workflow and reduce material waste." —*Sandro Cestaro, general manager, Emmegi*

We don't have to reinvent the wheel, but we can certainly enhance it.

speed and production barriers are being broken as well. "We are seeing off-the-shelf 6-axis robots being used for what would have been a dedicated 3- or 4-axis application in the past," he says, citing the competitiveness of 6-axis robots.

Mehringer believes multiprocessing sawing centers and high-speed passthrough welding and cleaning lines are among the most exciting things happening in the space right now.

Machinery often is designed to do more than it ever has before. Emmegi's Quadra L2, for example, does extrusion on one side and finished parts out the other, says Cestaro. Its CNCs also are becoming more automated and allow for greater flexibility. "By processing a complete bar on a CNC, you may reduce waste and improve production times," he says.

Customers certainly are among the strongest voices when machinery manufacturers evaluate how to improve their product. "Hands down, [customers] are my 100 percent focus and when they speak, I listen," says Witte's Colberg. "I listen to their ideas, wants, their likes and dislikes. We explore and research the possibilities with their concepts in mind. In fact, we had a customer challenge us at GlassBuild America last year and, believe it or not, we are still working on exploring and cultivating the challenge presented."

Efficiency gains

On the manufacturing floor, efficiency gains often translate directly into increased revenue. "At the end of the

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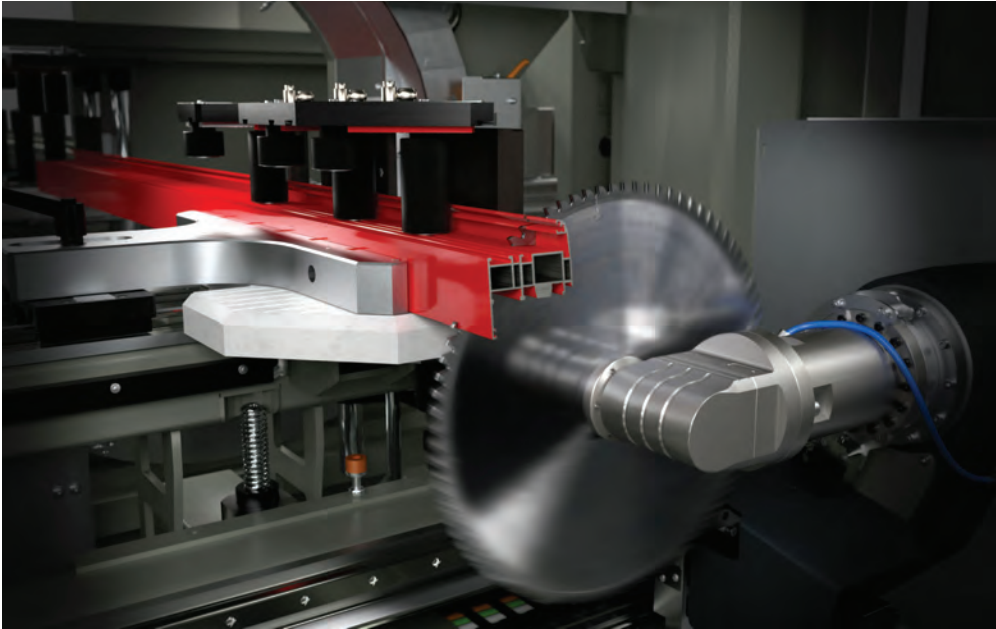
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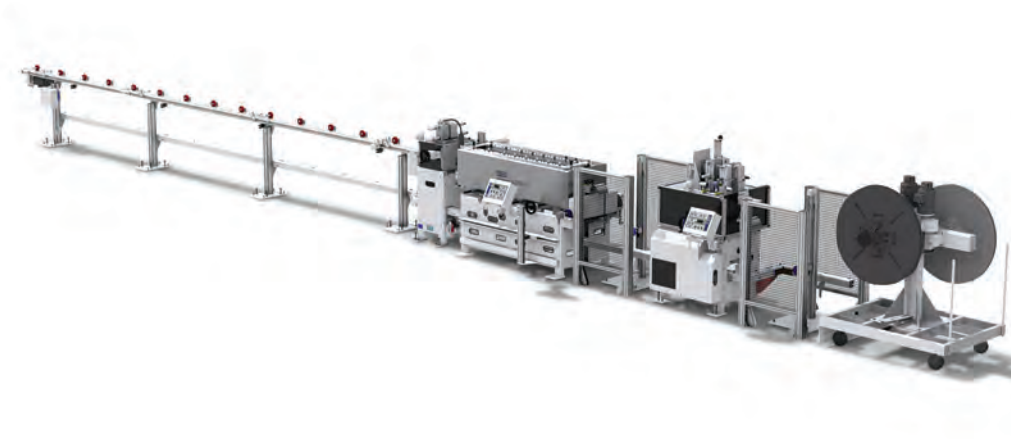
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Left: Emmegi's Quadra L2, where extrusion is one side and finished parts come out the other, is one example of machinery that embodies flexibility, smart interaction and minimum operator input.

Below: GED Integrated Solutions' Intercept 2.5 warm-edge spacer fabrication system is designed to eliminate internal muntin grid misalignment with notching and snap-in muntin clips. The control system provides hardware reduction and technology ensures the integrity of the fourth corner is identical to the first three corners, according to the company.



day, it's about making money, and you need to be efficient to make money," says Josh Rudd, sales executive, A+W Software. "[Employees need to be] as effective and efficient as possible, and that's what technology and equipment does."

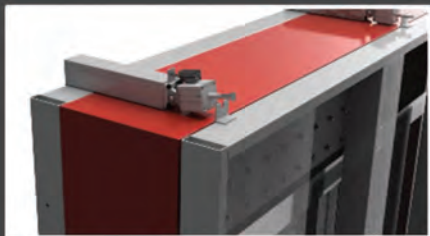
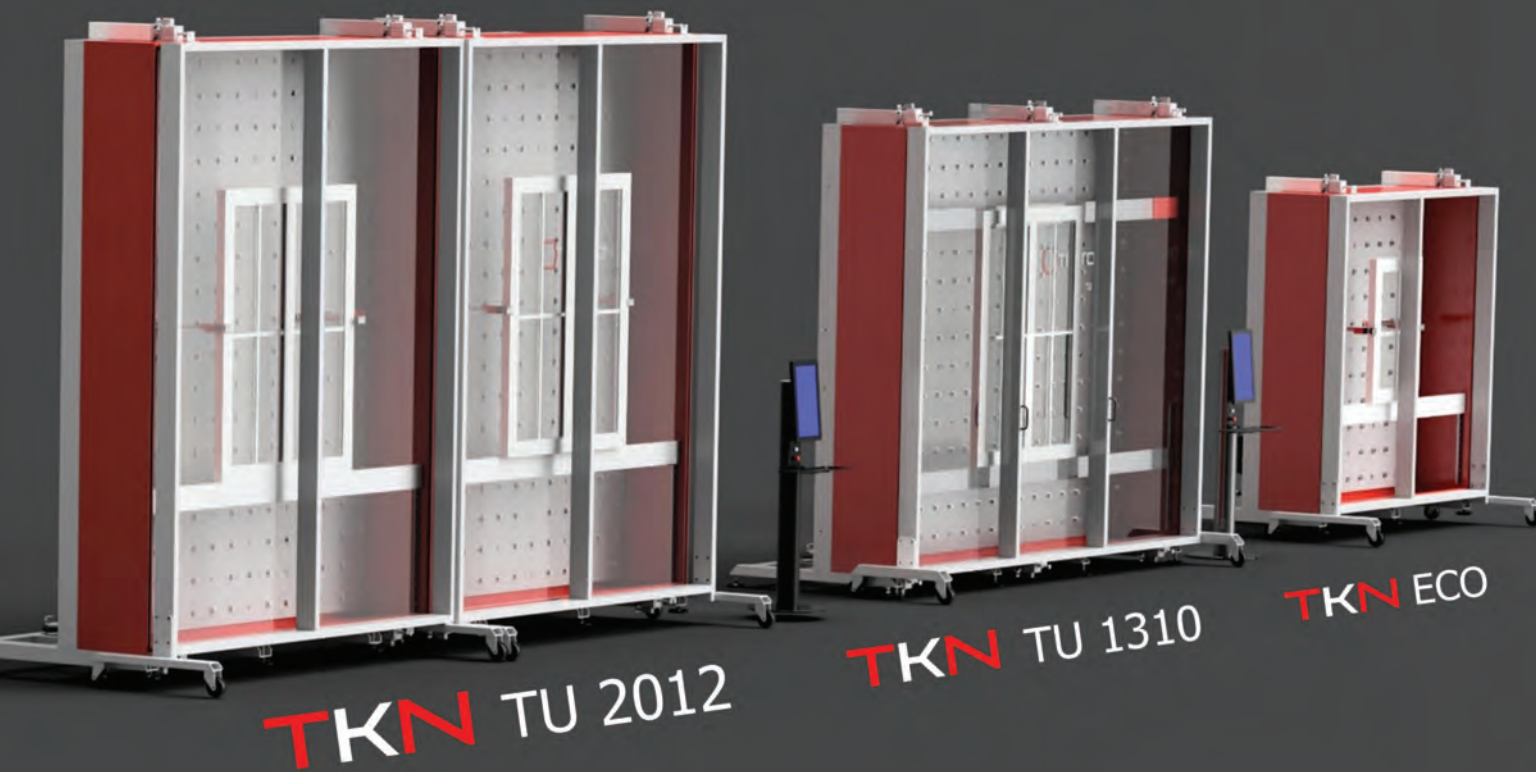
Rudd also sees lean manufacturing as an important element of efficiency. Having the proper equipment and software in place helps reduce breakage or errors in the shop and allows operations to bounce back quickly in the event of one. "When you tie design directly into a machine where you can

steer machines —not re-keying—you eliminate mistakes," he says. "A big part of lean manufacturing is reducing footsteps and eliminating mistakes."

For laminating equipment, operator convenience, efficiency and maintaining a good balance between the speed and ease to set up and run the lines is also notable, says Marco Patermann, sales representative for FUX laminating equipment. "[Operators need to have] a level of technology on the lines to have a consistent and repeatable process throughout the entire year and from one crew to the next one, but

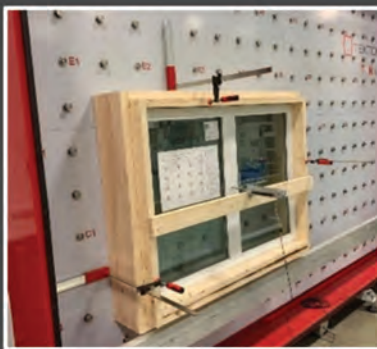
without spending a fortune on fully automated equipment," he says.

Market pressure and the challenge to do more with less are top-of-mind for many, as well. "Our customers realize that automating processes improves speed and quality for an on-demand world that prioritizes individuality," says FeneTech's Miller. "By building configurable systems that can easily adapt to thousands of product configurations and still guide orders through a streamlined production workflow, fabricators can rise to the top with best-in-class service levels."



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EQUIPMENT & AUTOMATION

How the Coronavirus Legacy Influences Automation Today

One of COVID-19's longer-term effects appears to be that of continued social distancing. Dave Miller, group manager – business development executive at FeneTech, says: "Now that companies are beginning to open back up, the conversation is shifting to how to maintain social distancing on the shop floor while not losing gains that have been made in efficiency. Work cell automation certainly helps in this area; however, advanced systems are required to deliver the appropriate processing information, unit by unit, to the automated work center. Additionally, the ability of these automated work centers to send data back to the production system provides opportunities for more flexibility and better management in the workflow."

Erdman Automation also pointed to social distancing as a driver for automation, alongside quality and safety. "Our workforce is more vulnerable and less stable than in years past and, in order to insulate the factory production from that reality, automation is required," President Morgan Donohue says.

Another trend during COVID-19 that some sources expect to continue is that of the need for local service and parts. Donohue cites the pandemic bringing to light North America's "vulnerable" supply chain, not only with components, but also with machinery and supporting services. "It is easier to support machinery that is produced here in North America because all the parts are typically sourced locally," he says. "The technicians who assemble and support the machines reside in the same relative time zones and there are no language barriers."

Virtual diagnostics, in fact, may be commonplace, even beyond the pandemic. "Providing 'after-the-sale service' is paramount in maintaining a loyal customer following," says Tony Mehringer, vice president of sales and marketing, Sturtz Machinery. "Remote diagnostics are commonplace today and we continue to challenge ourselves in this area while partnering with our customers."

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Steve Dillon, corporate marketing director, Veka, observes equipment manufacturers developing “unique fabrication equipment to gain efficiencies and capability of producing a more appealing, finished product. Unique manufacturing, tracking, operational and data-driven digital products are surfacing quickly in the North American market.”

Labor and safety

One of the largest pain points in manufacturing and construction remains that of labor. “The shortage of labor is fueling automation investment, labor savings, improved quality and safety,” says Mehringer. Sturtz, for example, offers varied degrees of automation based on customer needs, saving labor costs and quality and safety improvements.

Some equipment manufacturers see heavy focus on labor-saving equipment, such as equipment that allows one person to handle the work of two people, says Owen Cleary, general manager, Wakefield Equipment.

Emmegi’s Cestaro believes the answer to the challenge of finding and retaining reliable, qualified operators lies in the machine and work environment. “Smarter machines that are easy and intuitive to use equal a shorter learning curve and a leaner manufacturing crew,” he says.

Cestaro references certain machines, such as its GNC and precision saw lines, that are designed to improve workspace ergonomics and provide a more visual interaction for the operator. Better software with simple, touch-screen inputs and visual references for a machine’s operating status can allow one person to operate several machines, he continues. “With a more accessible and understandable workspace, we seek to reduce human error, improve efficiency and create a satisfactory working condition for the operator.”

The enhanced technical prowess may also change the type of operator factories look to hire. “With all the automation that is being set forth in our industry, we will also see a need to hire more skilled people to operate and program these fabrication lines,” says Witte’s Colberg. “We will see an increased need for maintenance technicians with an emphasis on robotics and computer programming. Working in a window manufacturing plant of the future may require a degree in robotics.”

Equipment with safety features also is becoming more prevalent. “More and more manufacturers have been willing to spend a little bit more for things like flashing lights and safety buzzers to ensure a safer work environment,” says Cleary. “Those types of features cost a relatively small amount of money to add and can make a huge difference on plant floors.

“Safety concerns have always been there, but I think there’s much more emphasis on it today than in recent years,” he continues. “Customers are wanting to do more than simply check the boxes when it comes to outfitting equipment with accident prevention features.” ■

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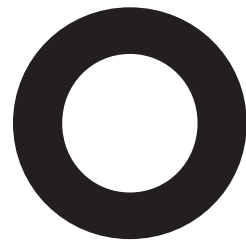
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Software and Digital Tools

As the industry moves toward digital platforms for manufacturing and business efficiencies, there is more opportunity for connectivity

By Norah Dick



One of the immediate results of the pandemic appears to be the rise in digital spaces and tools, and the increased adoption of software. Still, the industry has

further to go in terms of getting equipment—and people—online, say industry leaders.

“There [are] still a lot of great opportunities companies are missing out on,” says Tyron Ball, CEO of Soft Tech. “Many are still grappling with a lot of the fundamentals [of software], including getting off of the legacy systems, and setting up core business processes and basic data integration processes.”

It’s possible that the next generation may also be spurring further and wider adoption of IT and software. “A lot of times ... you have the owners’ kids that are now coming into the business that grew up with technology,

grew up using AutoCAD and have plenty of technology in their life and want to bring that into the factory,” says Josh Rudd, sales executive, A+W Software.

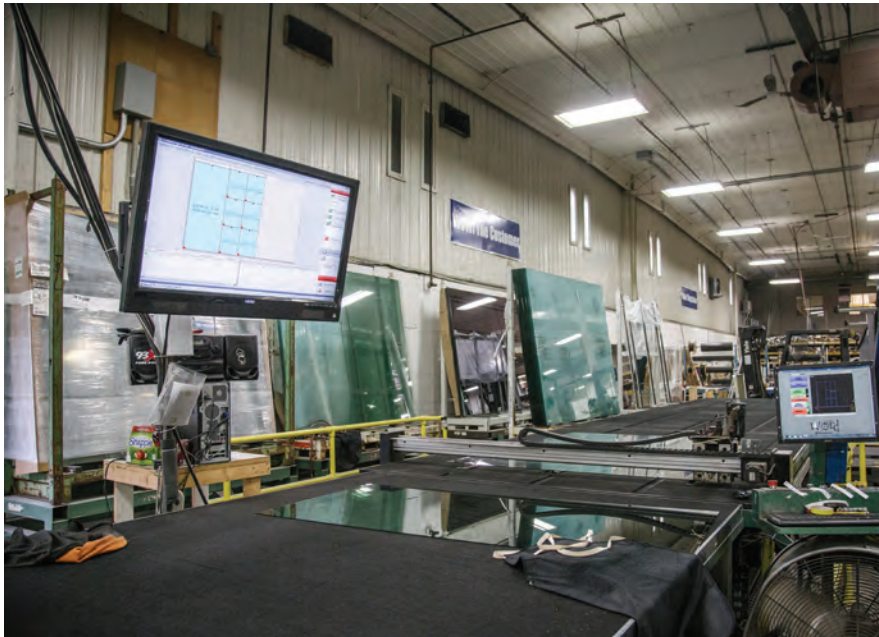
Integration

Companies continue to integrate and streamline processes on the manufacturing floor and beyond, eliminating “islands” of connectivity, say industry sources. “Today’s factory is much more integrated. Tighter communication between systems and well-defined workflow rules are becoming even more critical,” says Dave Miller, group manager, business development executive at FeneTech.

Expanding the reach of software also includes connecting software systems to hardware, expanding the Internet of Things. Soft Tech’s Ball says that this connectivity is accelerating. “The hardware space has picked up its game,” he says. “[We’re now seeing] integration with hardware, self-driving trucks, and next-generation robots, all driven by



Dashboard for the Soft Tech Dealer Module. This system allows manufacturers to share up-to-date product, pricing and specification information with dealer networks.



Top: Proliner digital templating allows users to check and edit digital templates onsite. Zach Harris, managing director at Prodim International, also anticipates a rise in digital processes due to an even further need for efficiency and accuracy.

Above: The technology behind automated machinery, such as FeneTech's FENml, can implement better communication up and down the supply chain, ultimately leading customers toward evolving into a digital factory. Integration and communications improve not only within the building, but also by providing notifications to outside resources, mobile apps for tracking deliveries and tighter integration with vendors.

software. The relationship with devices and tangibles is exciting.”

Rudd says A+W is already adapting existing popular mobile devices and equipping them to do a variety of functions, such as barcode scanning. “[The program] uses an existing technology everybody has in their hands—a cell phone—to be able to perform certain factory functions.”

LogiKal is further developing its manufacturing solutions to streamline automation and interconnectivity on the factory floor, says William Downing, operations manager. The company’s new software LogiKal MES, manufacturing execution system, yet to be released in North America, provides a paperless control center for window construction. The system pushes out, to digital workstations, only the information each operator needs to know, and only when previous production steps are completed.

Data-driven systems

Increased connectivity, and the automation of processes through software, can also improve efficiencies by tracking data employers can then use to make business decisions. “The ability of these automated work centers to send data back to the production system provides opportunities for more flexibility and better management in the workflow,” says FeneTech’s Miller.

Part of the motivation comes from increased competition, including from abroad. “A lot is driven by the labor skill shortage, and increased competition from overseas,” says Ball. “There’s a need to capture that data and automate those processes to make things faster and more accurate.”

Zach Harris, managing director at Prodim International, also anticipates a rise in digital processes due to an even further need for efficiency and accuracy. “[There will be] even more focus on the digital process, as every waste counts double. Everything has to be right the



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first time, with the least amount of site visits.”

Veka’s digital solution, WIN, is an example of this drive toward accessible data. Currently being piloted by Digital Product Solutions Corp., a stand-alone company created by Veka, the digital system provides installers and end-users access to real-time data regarding their fenestration products using cloud-based technology and a mobile application. The initiative creates a digital double of the product, which is tracked throughout its lifecycle; installers are then able to access real-time data through a mobile app, allowing greater efficiencies, says Joe Peilert, president and CEO of Veka North America, as this access to the product’s status increases the likelihood that repair work can be completed in one trip.

Remote access

The pandemic forced much of the labor force to work from home, pushing many companies to move processes online to be available remotely. “Work from home is huge for large organizations,” says Soft Tech’s Ball. “That puts an increased demand on communication and data sharing.”

A+W’s Rudd says that online versions of tools have been useful during this time of separation. “I’ve been doing a lot of demos on our iQuote program, which is a web-based order entry and order updating system that’s attached to our ERP. It allows for customers or salespeople to use the web from wherever they are to place orders and build their own quotations.”

Cloud-based technology has been a major force making remote access possible. “Accessibility of all things via the internet has given rise to software and machine interfaces that allow our service group to ensure the machine’s efficiency through smarter remote diagnostics and easy-to-use interfaces over the web and via the cloud,” says Sandro Cestaro, general manager at Emmegi. ■

Automation and interconnectivity

Factories across the world are evolving to become smarter, more connected facilities where glancing at a single user dashboard can tell an operator the status of nearly any item processing at a given moment.

“Currently, there is much more focus on the integration of work cells on the shop floor to eliminate islands of automation,” says Dave Miller, group manager—business development executive at Fene-Tech. “In many cases, this automation was first designed to reduce manual movement of glass for various reasons, including employee safety and reduction of breakage and scratching. Today’s factory is much more integrated. Tighter communication between systems and well-defined workflow rules are becoming even more critical.”

Josh Rudd, sales executive at A+W Software, says it’s imperative to be able to tie machines together for greatest efficacy. Without proper supportive software that feeds machinery the proper data and sequence, he says, a machine won’t be able to live up to its full capability. “Technology can maximize a machine or a particular set of flows—different operations from machine to machine and through logistics.”

Not only does machinery need to meet production cycle efficiency and operator requirements, but it also must be able to interact with ERP programs, maintenance interfaces and efficiency monitoring suites, according to Sandro Cestaro, general manager, Emmegi. “These software-driven solutions keep the machine visible to managers and operators to manage workflow, improve multiple-shifts performance and even incorporate data from manual stations on the production floor.”

Automation also presents an opportunity for companies to set themselves up for long-term success and stability. “The need for automation may be depressed slightly in the short term due to the unemployment numbers, but in the long run it will be critical to compete with foreign labor prices and also the next pandemic,” says Morgan Donohue, president of Erdman Automation. “Those who are the most automated will have the advantage over the competition.”

Vital though automation is in today’s environment, there is a risk of losing the ability to operate traditional equipment. “No matter how automated a window plant becomes, manufacturers should always have backup ‘old school equipment’ on hand—copy routers, single point welders and a simple saw so as not to be paralyzed by a computer glitch,” notes Sarah Colberg, sales manager, Witte North America.

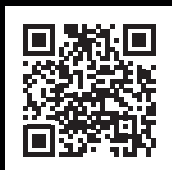


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This page: Caldwell's Omni Drive handles can be replaced with the company's Omni-Mation automation system featuring home automation compatibility and green initiatives. **Opposite:** Ten years ago, darker colors were taboo in vinyl windows, according to Greg Koch, vice president of sales and marketing at Deceuninck. "Now, they are everywhere," he says. "We've done a full 180 on the thought process that goes along with dark colors."



Window and Door Design

Size, color and performance drive the latest designs in fenestration **By Emily Kay Thompson**

“Windows and doors in North America are becoming more and more an expression of personal style and a substantial part of the design concept of a building, not only by matters of performance, which is always an essential part of the decision, but also by aesthetics in terms of what type and shape of window, and what color and finish,” says Marco Patermann, sales representative for Continental.

All of these elements are foremost

for suppliers to the industry as windows and doors continue to evolve. “It’s been interesting to watch the evolution of designs over the past five years,” says Gary Hartman, VP of sales and marketing for Chelsea Building Products. “In the vinyl segment, profiles continue to get smaller, providing for more glass and daylight area. Another trend we are seeing is to design simpler shapes—profiles that may not have the aesthetics that they once did but are easier to fabricate.”

How else has the market changed? Kevin Seiling, VP of engineering and

new product development for Veka, notes how speed to market has progressed. “What used to be a long drawn out approval process crossing t’s and dotting i’s has now become a business decision where timing is compressed. Engineering is usually 75 percent through die drawing completion when the ink is still wet on the contract.”

According to Kevin Zuege, senior director of marketing & technical service, industrial products business, one of the biggest trends is the resiliency of the market itself. “We have spoken to a lot of fenestration



customers in many areas. They are moving and moving faster than last summer.”

Sources across the industry echo this sentiment. We hear that business is picking up across the board, even as uncertainty regarding the economy is at an all-time high. Here, we’ll take a look at some of the more specific trends that are shaping that business—namely size, color and performance.

Size

“One of the things we’re really seeing in the patio door side of the business

is that people are trending toward larger glass sizes,” says Roger Finch, national marketing manager for ODL Inc. “People are going to more movable glass panels, folding patio doors, larger sliding patio doors. We’re seeing more 8- and 10-foot doors and, in some cases, full walls of glass.”

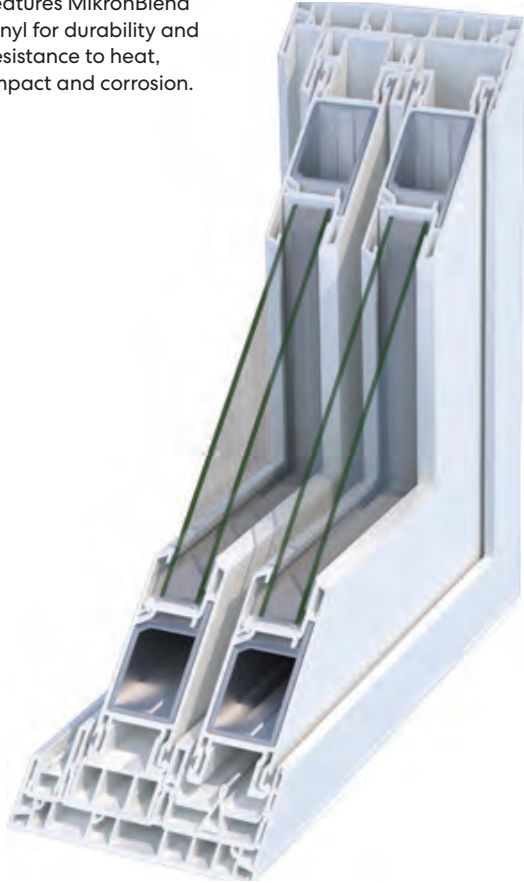
This favor for larger expanses of glass also extends to windows, he says. “While the 3- by 5-foot and 3- by 6-foot are still our largest sizes sold, we are seeing more double IG windows and triple IG windows that allow for greater light into a room or into the home.

Color

Ten years ago, darker colors were taboo in vinyl windows, according to Greg Koch, vice president of sales and marketing at Deceuninck. “Now, they are everywhere,” he says. “We’ve done a full 180 on the thought process that goes along with dark colors.”

Available darker colors can create a lot of new visual interest, notes Larry Johnson, vice president of sales, North American Fenestration, Quanex Building Products, where the traditional options for vinyl have simply been white frames. “We’re seeing a lot of new interest in

Quanex's 5400 (K2) Sliding Patio Door System features MikronBlend vinyl for durability and resistance to heat, impact and corrosion.



Roto's 9100 handle offers a 13-inch handle length to support taller patio doors. To maximize sightlines, the handle is only 1.2 inches wide, which prevents it from encroaching into the glazing area of the door.



dark-colored or black vinyl windows,” Johnson says. “This is happening both in single-family homes and in multifamily construction, with colored capping on both interior and exterior framing. Consumers and residential developers are taking advantage to give homes a unique look.”

Finch also reports this trend toward dark-colored entry doors. “There has been a significant trend toward using more colors not only as a complementary color for the outside of the home, but to also use as a focal point inside the home,” he says.

Additionally, from a design perspective, Patermann says there is a consumer preference for very

matte surfaces when it comes to solid colors. And, in new construction and replacement coming from the west and heading east, Seiling reports that dark exterior colors, including black and bronze, maintain popularity.

There are three primary options for color, Seiling explains: laminates, cap-stocks and paint. “We offer laminates and cap-stock products in rack quantities while paint remains the fabricator’s decision to outsource or do in-house,” he says.

Base-color pigments are another option, Koch adds, but reports that Deceuninck’s preferred method for color is lamination, as it allows customers late-stage customization. The laminate side

has been a growing trend in recent years.

In the end, however, darker colors are more about aesthetics. This trend is going to “continue to push all suppliers to a higher level of performance,” Koch says.

Performance

In both commercial and residential, thermal performance is really going to continue to be a primary driver for innovation in our industry, says Johnson. “Regardless of legislative activity, which can fluctuate depending on the current administration, building codes are only growing more stringent. Homeowners are increasingly aware of the occupancy comfort benefits that come with thermally efficient windows.

“Looking ahead, I think that’s one thing all fenestration professionals are going to need to consider—higher and higher performance, no matter the application.”

Looking ahead

How will the conversation continue to evolve for fenestration manufacturers and suppliers in terms of the market at large? Here’s what sources had to say:

- While PVC has the best cost/value relationship in the industry, its popularity has put pressure on manufacturers regarding how they differentiate their product from the competition, says Hartman. “I think we will see more of the broad category of composites play a greater role in the future.”
- Wood composites and fiber reinforced composites are gaining popularity, says Seiling. “In the end, the product that will be the big winner is the material that can claim all of the best properties—impact resistance, weldability and weathering—and improve in subtle ways, including strength, expansion, contraction and shrinkage.”
- “Now is a great time to embrace new technologies and to rethink the product portfolio in order to distinguish oneself even more in an ever more competitive market,” says Patermann.
- Expectations are increasing across the board, says Koch. Lineals need to be straighter, tolerances need to be tighter and it’s going to continue across the manufacturing floor. “Suppliers are being held to higher standards; the bar has been raised year after year.”
- “With the increasing industry consolidation, innovation and differentiation will determine success. We need to remain open and proactive about order forecasting and locating/solving single points of failure for supply chain, says Mount. “Innovate when needed ... keep product lines moving.” ■

Hardware

When it comes to hardware, there are three big conversations: automation, contemporary aesthetics and robust design.

Automation

The most exciting thing in hardware right now, say Caldwell representatives, is window and door automation—specifically, windows and doors finding a niche in the Internet of Things to complete a smart home environment.

Finch also sees smart home automation becoming more and more important in the home. As related to blinds, he projects that motorized blinds and shades are going to “become a part of our normal lives over the course of the next five to 10 years.” There are a number of external blind kits that offer users control using an app or remote. “We are looking at doing that same thing but we are looking at actually doing it built into the window,” he reports.

Aesthetics

Today, more attention is given to the aesthetics of hardware, notes Dan Gray, director of sales for Roto Frank of America. “Many fabricators are conscious of the “contemporary” trend and expect their hardware suppliers to have new offerings to support this trend,” he says.

Michelle Nissen, vice president of product management for AmesburyTruth, also notes this move from traditional hardware to a more contemporary design. She says, “Hardware has gone from being decorative and ornate to sleek and minimalistic, with colors going to darker matte or black finishes.”

In terms of color, Finch notes that satin nickel and patina still seem to be the two leading colors that people are wanting. There are also some influences in some gold tones that are showing up in the marketplace. “We’ve seen the re-invention or re-invigoration of brass in more of an antique brass gold tone look. It’s been slight, but antique brass or gold tones are still popular and growing in popularity,” he says.

Robust design

As windows and doors become taller, wider and heavier, the hardware needed to actuate the larger units must be more robust, Gray says. “This provides hardware manufacturers with nice opportunities to develop new products for value-added solution selling.”

Caldwell, too, reports seeing requests for more robust features and the capability to manage larger and heavier windows, and concealed hardware that is hidden from view or minimized to blend into the design.

Of course, as Gray notes, ease of operation for large openings is essential for the end users as well. “Windows that have minimal operating force [are] extremely important for fabricators, hardware manufacturers and end users.”

People

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Geeraert

Deceuninck North America named *Joren Knockaert* as its new president and CEO. Knockaert succeeds *Filip Geeraert*, who announced his retirement this spring and who will now serve as chairman of the Deceuninck North America Board of Directors.

Knockaert comes to Deceuninck from Mohawk Industries, where he ran operations in sheet vinyl and luxury vinyl flooring, oversaw four manufacturing plants, and guided the start-up of a \$200 million facility to produce next-generation LVT product.



Piqueur

Mike Piqueur took on the role of managing director at **Deventer** on July 1, reports Roto Frank Fenster and Türtechnologie GmbH. The current

managing director, Lüder Pflügner, retired after 13 years in this position.

At the end of 2000, Piqueur began his current role as managing director of the Western Europe business area, including the countries and regions of the United Kingdom, Ireland, Scandinavia and the Benelux Union. As managing director, he will report directly to Marcus Sander.



Rostad

Quanex Building Products promoted *Wendy Rostad* to senior inside sales manager and *Jack Meluskey* to Western regional sales manager within its North American Fenestration group.



Meluskey

Rostad will be responsible for leading all pricing activities and customer communications across NAF, as well as lead the customer service teams in the development of customer contracts and agreements.

Meluskey will continue to foster relationships, execute strategies, educate customers on the breadth of Quanex products and drive growth for key accounts within the Western region. He will also maintain responsibility for several national accounts.



Pollina

Bob Woodward Jr., chairman of the board at **Palmer-Donavin**, announced that *Robyn Pollina*, current CFO at Palmer-Donavin, has been named CEO of Palmer-Donavin, succeeding retiring CEO Ron Calhoun, effective Aug. 1. Pollina moves into this role after having been with the company for 25 years and serving as CFO for the past 23 years. As a member of the board, Calhoun will continue to work with Pollina and the executive team to develop strategic initiatives and important relationships.



Dimou

Roto North America's president and CEO, *Chris Dimou*, was re-elected to serve on the Board of Directors of the Middlesex Chamber of Commerce

and was also voted into the Chamber's Executive Committee.

Dimou was also re-elected to the Connecticut Invention Convention Board of Directors for another term. The CIC is a 501(c)(3) nonprofit educational program designed to help develop and enhance critical thinking and problem-solving in kids through invention, innovation and entrepreneurship.



Hendrickson

Soft Tech welcomes *Kyle Hendrickson* as strategic account manager - North America. Hendrickson brings 16 years of Fenestration CNC experience to his position as Strategic Account Manager.



Whitehouse

The company also hired *James Whitehouse* as program manager to the implementation team. Whitehouse brings with him years of leadership experience in the industrial, energy and construction industries across the U.K. and the U.S., according to the company.

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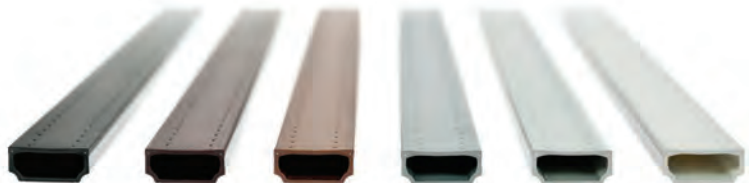
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Modern Edge all-black window and door frames are available on PGT's WinGuard aluminum and WinGuard vinyl, energy-efficient EnergyVue vinyl, and non-impact ClassicVue Max aluminum styles. Specific products include single-hung windows, sliding glass doors, architectural windows, French doors and more.

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02 / Technoform

Technoform added a high-profile, plastic hybrid stainless steel warm-edge spacer to its Spacer M family of insulating glass edge seal solutions. Composed of a high-performance engineered polymer with a thin low-conductivity stainless steel backing, the spacer has an 8-mm profile height, widths from ¾ to 1 inch and comes in six standard colors.

330/487-6600 | TECHNOFORM.COM

03 / ODL

ODL expanded its textured glass offerings in simulated divided lights with four textures. Blanca has a frosted, slightly stippled surface designed to provide a high level of privacy. Chinchilla features fine lines and a fur-like texture that creates a wave pattern from afar. Micro-Granite (pictured) is a high-privacy option that blends several textures and patterns, while Streamed is a vertical pattern with a strong ribbed texture.

800/253-3900 | ODL.COM

Product/Solution



Large Opening, High Performance Patio Door // **Corsair by VEKA Inc.**

Challenge

Manufacturers need a higher performing patio door that offers superior performance in air and water infiltration, and that is also easy to manufacture, install and operate.

Solution

The latest addition to the fleet, the Corsair is a higher class of product in terms of operation, performance and style. The saddle-style door glides on a metal rail and heavy-duty, face or end adjust steel rollers.

Sloped sill is standard and is less complex to manufacture than most saddle style

doors. It may also be fabricated using the same frame profile welded on all four sides.

The Corsair door is customizable for new construction or replacement use in two, three and four-panel configurations up to eight feet high. Multiple color options are available for the interior and exterior as well as an array of hardware options in standard and multi-point locking systems. The Corsair delivers performance with its 1¼-inch IG capacity, a DP50 class rating and impact capability.

The Corsair also features VEKA's exclusive, patent pending technology, FeneXseal™ to ensure proper installation and defend against water penetration. This is the first time a sill sealing technology has been combined with a patio door in

order to help with installation in a large opening application.

For more information, contact VEKA Inc. at 724/452-1000 or visit vekainc.com.

Editor's Note: See other photos, videos and product highlights from VEKA online at GlassBuild Connect at glassbuild.com/company/veka. And, don't miss VEKA's Fenestration Town Hall Discussion as part of special GlassBuild Connect Outlook Tuesday programming on September 15 at 1 p.m. ET.

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01



02



03

01 / Roto

Roto introduces its Roto Patio Alversa and Roto Patio Inowa (pictured) series sliding patio door hardware. The Alversa has one tilt and slide solution and three parallel sliding solutions and has a universal central locking system, night ventilation function, and ball-bearing-mounted roller unit with integrated anti-jemmy protection. Inowa is positioned as smart hardware thanks to its closing movement of the sash transverse to the frame profile, surrounding gasket and active locking points in the mullion. The SoftClose function will be available Summer 2020.

800/243-0893 | ROTONORTHAMERICA.COM

02 / D&D Technologies USA

The ConcealFit Closer and Hinge Set is a hydraulic concealed closer and hinge set in an all-in-one configuration suitable for interior and exterior applications. ConcealFit includes four positional adjustments: lateral, vertical, depth and inclination, and also has an adjustable closing speed, latching speed and backcheck. It has a UL10C fire rating. The set has been tested to over 500,000 open/close cycles and closes doors and gates up to 220 pounds, according to the company.

714/677-1300 | DDTECHUSA.COM

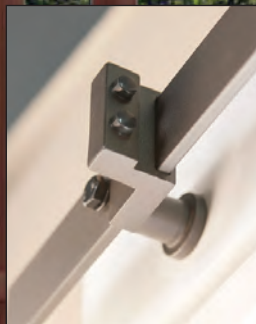
03 / Kova

Kova's new line of high-performance windows are suitable for new builds or retrofits. Several custom sizes and configurations are available, including horizontal slider, picture window and two-panel sliding patio doors. Features include heavy-duty reinforced vinyl profiles, water intrusion protection, a warm-edge spacer, argon gas fill and operable hardware. Three performance tiers are available: performance, performance plus and performance select. Each meets Energy Star 6.0 requirements for the entire U.S.

650/422-3572 | KOVAPRODUCTS.COM



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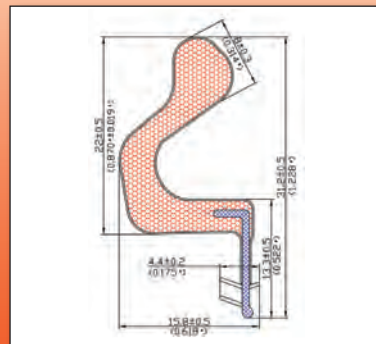
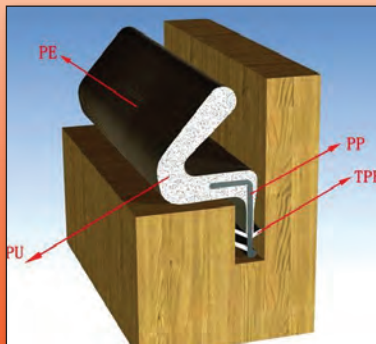
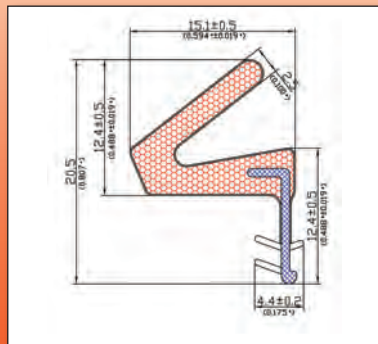


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01



02



03

01 / Pella

Pella combined its most popular fiberglass and steel front door styles and curated them into a single portfolio of Pella Entry Doors. It also partnered with Sherwin-Williams DesignHouse to create a palette of 25 paint colors and eight prefinished stains. Door frames are made of composite material with no exposed wood. Also offered are built-in, hidden security sensors so homeowners can monitor doors and windows from a smartphone app.

888/847-3552 | PELLA.COM

02 / Crystal Window & Door Systems

The Series CVP-1100 Knock-Down corner factory-glazed sash panels and a mechanically fastened master frame ready for jobsite assembly. It comes in 5- and 6-foot widths in heights 6 to 8 feet with a 4 5/8-inch frame depth. The door is fitted with 1-inch insulating glass units with 3/8-inch double-strength tempered glass, says the company. Other features include a latch locking pull handle, adjustable tandem rollers, stainless steel sill track and fully reversible sash panels.

800/472-9988 | CRYSTALWINDOWS.COM

03 / GlassBuild Connect

From the organizers of GlassBuild America, GlassBuild Connect offers a robust product gallery online during the month of September, featuring detailed product information from more than 300 glass and fenestration companies. Easy to search and navigate, the site will also host daily demos, videos and more. Visit the site daily throughout September to see new featured products and content each day.

GLASSBUILD.COM

Roto North America will be exhibiting on GlassBuild Connect 2020!



We are excited to showcase the new RotoFasco Secura **9600** sliding patio door handle!

This stylish, contemporary handle is becoming the product of choice for “entry level” patio doors. Designed as a 1-piece handle offered in durable powder coat finishes, the **9600** is sure to be a crowd-pleaser with consumers.

Complimenting the **9600** handle are Roto’s 1, 2, and 4-point mortise locks, secure kick locks, high-performance rollers and an array of other stylish handles.

Roto is pleased to construct personalized packaging of kits for all of your sliding patio door hardware.



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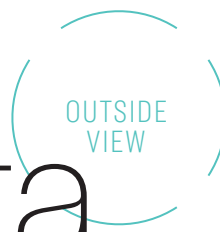
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Market Data



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Recovery Underway // Expect a Slow Return to Normal

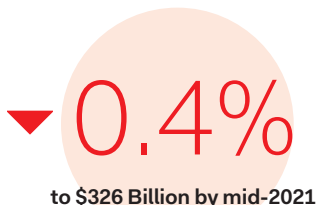
Leading indicators of the health of the residential construction and remodeling market send mixed signals about the economic climate, but all agree that challenges exist as the economy emerges from the coronavirus-induced recession.

June Single-family Building Starts



The rise is fueled in part by low mortgage rates and growing demand in lower-density markets. *Source: U.S. Housing and Urban Development and Commerce Department*

Renovation and Repair Spending



to \$326 Billion by mid-2021

In light of continued weakness in the broader economy due to the pandemic, annual expenditures by owners for home improvements and repairs are expected to shrink slightly by the middle of 2021. *Source: Remodeling Futures Program at the Joint Center for Housing Studies at Harvard University, Leading Indicator of Remodeling Activity*

Builder Confidence at Pre-pandemic Levels



to 72

Builder confidence for newly built single-family homes returned to a solid reading on par with March 2020. *Source: National Association of Home Builders/Wells Fargo Housing Market Index*

Window + Door Stock Index year-over-year return:

18.6%

vs.

Broad Market Index year-over-year return:

4.6%

Stock prices of publicly traded window and door companies and the broader market increased in June 2020 as investors continue to gauge the economic recovery relative to the continued spread of the COVID-19 pandemic. Investors believe residential construction activity will be strong and thus pricing for the industry is at a premium to the market. *Source: Lincoln Financial*

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