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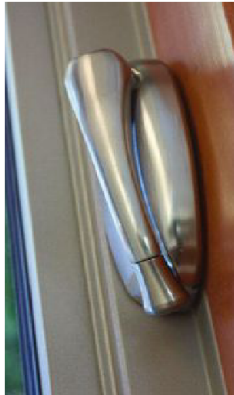
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The agency recently OK'd new rules on reporting workplace injuries and illnesses that could make every incident available for public scrutiny. And that's just one of many recent changes.



30 | Fast-Growing Dealers

In this fourth annual list, DWM looks at some of the country's fastest-growing door and window dealers. Whether they post \$3 million or \$19 million in sales, they all have businesses that are prospering in their local markets.



34 | Heavy Growth in Light Commercial

The light-commercial market's recovery dovetails with the overall rebound in construction, and vinyl products are a big part of the mix.



36 | Showrooms: Don't Turn Off the Lights Just Yet

The Internet has disrupted many business practices, and made many more obsolete. (Think about that Blockbuster Video card still taking up space in your wallet.) But the door and window showroom looks like it'll be around for a long time to come.

ON THE COVER

DWM explores the variety of regulations being implemented by OSHA and why the industry is worried. See page 18.



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It's About to Get Worse

BY TARA TAFFERA

The phone conversations usually go a little something like this [insert annoyed tone]: “Do you all just scour the Internet looking for a window and door company that had a safety violation and then report on it for your e-newsletter [and website]?” asks the caller. Our response usually goes a little something like this: “When we see reports that a door or window company is involved in an OSHA violation, it’s news. We cover the door and window industry, and it’s our job to keep our readers informed.”

“A new requirement going into effect this August will put the entire injury and illness history of most U.S. companies into a searchable online database.”

Yes, we cover the accidents, but we also report on those who reach safety milestones. And in this month’s issue, DWM editor Trey Barrineau gives you six pages of in-depth information (*starts on page 18*) on how the safety landscape is about to change. If you hate the Occupational Safety and Health Administration now (OSHA), hold on—it’s about to get worse. A new requirement going into effect this August will put the entire injury and illness history of most U.S. companies into a searchable online database.

“Obviously, that’s going to be a whole lot of information that OSHA’s about to receive, and they’ve been pretty swamped since January 1,” says Terry Burkhalter, an authorized OSHA instructor and vice president of risk control services with Willis Towers Watson in Knoxville, Tenn. That’s when the new Severe Injury Reporting Program went into effect. It

requires employers to report work-related amputations, in-patient hospitalizations or the loss of an eye within 24 hours.) “That’s pretty much overwhelming them.”

The above quote really surprised me. Keeping up with these serious injuries has overwhelmed them? No wonder they are putting this new program into place. They are, in essence, letting others do the work for them. I mean, on one level, it makes sense, but read Trey’s article for all the consequences that may ensue.

Another alarming fact is how much OSHA’s new silica rule will cost the construction industry, which aims to limit workers’ exposure to crystalline silica.

Last year, the Construction Industry Safety Coalition (CISC) released a study claiming the rule will cost the U.S. construction industry \$5 billion per year—roughly \$4.5 billion per year more than OSHA’s estimates. That fact immediately brought me back to the lead paint rule and the degree to which the Environmental Protection Agency (EPA) had sorely underestimated how much that would cost industry companies.

Some regulation is needed, yes, but with EPA and OSHA, I can understand why many are concerned. Heck, I can understand why one of our largest door and window makers, Jeld-Wen, cited regulations as having a potential impact on the company in its initial public offering filed in June 2016 (*see pages 8 and 13*). If that’s proof of the real effect this has on industry companies—and that’s a large corporation—imagine what it means to the smaller ones (Trey addresses that in his article too).

So be prepared: OSHA’s reach is expanding. Are you ready? **I**



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NAFS Levels the Playing Field

Use it to Demonstrate Claims of Long-Term Performance

BY DEAN LEWIS

Performance orientation has been the key that's made AAMA/WDMA/CSA 101/I.S.2/A440, also known as the North American Fenestration Standard (NAFS) for doors, windows and skylights, the vehicle for bringing newer framing materials to market on a level playing field. NAFS guides the rating of completely fabricated products as to how well they perform under prescribed conditions, a process that takes into account the strengths and weaknesses of all framing materials.

Given the vast combinations of window types, sizes and performance demands imposed by the design, location and function of the building in which they are to be used, specifying windows for a given project can be a formidable task. NAFS provides a meaningful yet flexible way to decode the various performance parameters and arrive at an appropriate specification that matches them with unique project requirements without sorting through prescriptive material-related parameters. As fenestration products evolve and diversify in response to expanding performance expectations, this guidance becomes more critical.

The 2011 edition of NAFS, referenced in the 2012 International Building Code and International Residential Code, covers 36 operator types (such as double hung, awning and newer configurations) employing all framing materials including wood, metal and various polymeric compounds such as vinyl, fiberglass and cellulosic composites.

Using NAFS to select and specify a fenestration product involves three basic steps:

- 1) Selecting the type of door, window or unit skylight desired;

- 2) Determining the likely maximum wind speed experienced at the job site (consult local codes), and;

- 3) Selection of the performance level required to withstand the force imposed by this wind speed.

This latter parameter is the project-specific Design Pressure (DP), which is the force, expressed in Pascals (Pa) or pounds per square foot (psf), exerted by the peak wind velocity at that location. From this, the Performance Grade and Performance Class can be determined for fenestration that will meet the defined environmental challenges.

Performance Class

NAFS defines four Performance Classes (R, LC, CW and AW) with minimum Performance Class requirements of 15 (corresponding to a DP of at least 15 psf), 25, 30 and 40, respectively. These are not trivial criteria; by simple calculation, they are equivalent to the force exerted by winds of 76.5, 98.8, 108.3 and 125 mph, respectively (note that your local code may vary).

Performance Grade

The specific performance level of a fenestration product that falls within a given Performance Class, designated by the above noted letter codes, is defined by the numeric Performance Grade (PG). The latter for a given product is the DP (or greater if desired) within each Performance Class, so long as it's supported by all of the following requirements:

- 1) **Structural performance.** A window or door must withstand a wind pressure test load equivalent to one and a half times the DP, applied to simulate the pressure effects of wind.

- 2) **Water penetration resistance.**

Simulating wind-driven rain, water is sprayed at the product at a test pressure of 15 percent of the DP for all Performance Classes except AW, for which it is 20 percent of DP (both subject to defined minimums).

- 3) **Air leakage resistance.** NAFS specifies the test pressure differential to be applied, as well as maximum infiltration rates for different Performance Grades and operator types (expressed in L/s • m2 or cfm/sf).

These three criteria, often abbreviated within the industry as "AWS" for Air, Water and Structural, are the foundation of fenestration performance and the primary elements for basic third-party certification. In addition to the AWS ratings achieved, a given product must also comply with other performance requirements, such as maximum operating force and resistance to forced entry.

The Short Form Shortcut

Sorting through all these classes, grades and various requirements might seem daunting. However, one of the primary purposes of NAFS is to simplify the job of the specifier and cover the essential details by condensing all this information to the completion of just two blanks in a short-form specification.

As rigorous as the basic NAFS requirements are, long-term reliability depends on factors other than the initial performance of a finished product. We will cover how this is considered in a continuation of this series, focused on components, in future issues. ■

Dean Lewis is technical manager, training and education, for the American Architectural Manufacturers Association.

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Insights from the Jeld-Wen IPO

Public Filings Provide a Benchmark for the Industry

BY MICHAEL COLLINS

Jeld-Wen recently filed the necessary documents with the Securities Exchange Commission (SEC) to undertake an initial public offering (IPO) of its stock. Once the IPO is complete, Jeld-Wen stock will be actively traded and available for purchase by investors. For participants in the door and window industry, such a public filing is a treasure-trove of information just waiting to be analyzed. We've reviewed the financial statements in the Jeld-Wen filing document and have come away with information that is relevant to all participants in the industry.

FIGURE 1 - Dollar Weighted Product Segmentation

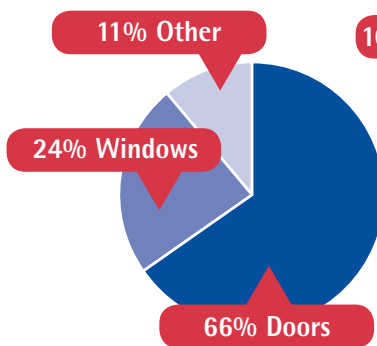
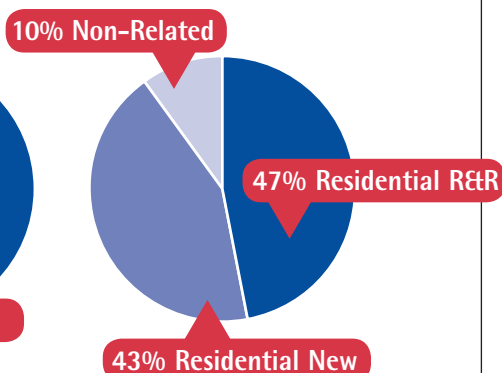


FIGURE 2 - Dollar Weighted Construction Applications



Source: Building Industry Advisors

A Big Player

Jeld-Wen operates 113 manufacturing facilities in 19 different countries. Thus, they are not a pure-play U.S. door and window manufacturer. For instance, Jeld-Wen participates in three markets (with the percentage of total revenues from each): North America (60 percent), Europe (29 percent), and Australasia (11 percent). If we dollar-weight the company's geographically segmented revenues versus these categories, though, a clearer view of the overall business emerges, as illustrated in Figures 1 and 2.

As of the 12 months that ended March 26, 2016, the company generated an impressive \$3.4 billion in revenue. Financial analysts will then look at the company's gross profit and gross margin for clues to its performance. Jeld-Wen has enjoyed a strong increase since 2013 in its gross margin (its gross profit divided by revenues). In 2013, gross margins were just 14.8 percent, and they rose to 20.2 percent by 2015.

There are several ways a company can increase its gross margins. One is by putting the clench on its vendors and beating down the cost of its components. Fortunately the company did not need to employ such tactics. Rather, it was able to do so through increased pricing and improvements in the mix of higher-margin and lower-margin products. It is a positive indicator for the whole industry that Jeld-Wen has been able to pass along and stick to price increases and that its customers are willing to buy higher-margin products.

The IPO filing cites that 53 percent of the total cost of

goods sold (COGS) consisted of materials costs. With a COGS of 80.3 percent, this means that 42.6 percent of Jeld-Wen's overall revenue was used for materials purchases. Bearing in mind the importance of materials costs, the company plans to continue to improve its gross margins through steps that represent good, basic business blocking and tackling. Jeld-Wen reports that, in the past, materials purchased at its many facilities were handled in a regional, decentralized manner. For a company of this size and scope, that means volume purchasing power was not being used to its fullest extent. The company will change that in the future, along with decreasing labor, overtime, and materials waste and improving quality in order to reduce warranty claims.


EBITDA Analysis

The next key measure in the typical analytical approach is to look at EBITDA margins, a company's earnings before interest, taxes, depreciation and amortization (EBITDA) divided by its revenues. In the case of Jeld-Wen, they have been able to increase their adjusted EBITDA margins steadily, from 4.4 percent in 2013 to 9.5 percent for the year trailing March 2016. For door and window manufacturers, 10 percent EBITDA margins are indicative of a solid level of performance. It will be informative to see if the various growth initiatives outlined by Jeld-Wen succeed in driving that profitability even higher.

The company disclosed the broad strokes of its plan


for achieving improved growth and profitability. The plans address several fronts and appear to have real merit in the current environment. The company has increased its commitment to R&D, hiring some 20 engineers. We would recommend that some of these engineers focus on basic materials research, improving the ways that various materials interact with each other. Historically, such basic research has been the source of the most game-changing innovations across many industries. Jeld-Wen will improve its command of such unmet needs and potentially develop profitable new products through the expansion of its current group of product line managers. The company will also continue its past record of actively seeking strategic acquisitions.

Finally, Jeld-Wen has implemented a rigorous overall governance policy to ensure that the most impactful new products and ideas are pursued. **I**

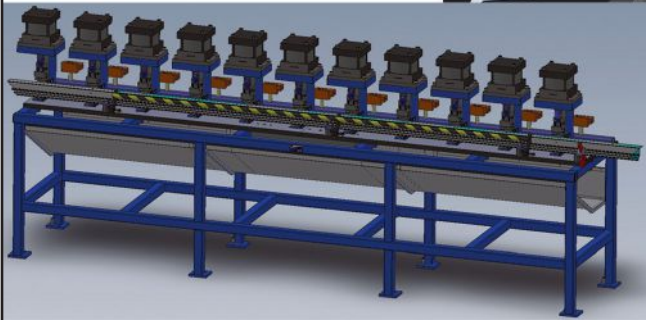


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Practical Paperless Production?

You Must Be Kidding!

BY ANDY WOODS

About 20 years ago, high-tech industries such as aerospace began using paperless manufacturing. It was expensive, cumbersome and required specialized staff just to maintain it. None of us ever imagined using it for window manufacturing, but pricing and access to ever-more-powerful personal computers made everything change.

Today we have reasonably priced computers, high-speed network connections and interfaces that move us closer and closer to closed-loop production. A closed-loop material requirements planning (MRP) system is software that helps manufacturers keep track of inventory and use that knowledge, along with other production variables, to adjust future manufacturing plans.

Closed loops facilitate the transformation from a flow economy to a circular one. This improves sustainability and ultimately leads to improvements. Waste, energy consumption, transport processes and packaging can be reduced or eliminated in a closed-loop environment. But one thing may still be missing, and it can make the biggest difference in your bottom line. I'm talking about moving to a paperless production model. What does that really mean?

Paperless production electronically delivers the information you need to the right place, at the right time and in the right order. Imagine information flowing up- and down-stream to every station in your manufacturing process. Imagine eliminating "traveling documents" including production summary sheets, cutting reports and shop tickets because that information goes electronically to each workstation. Let your mind go wild, and think

Getting Started

Here are a few steps to help you plan for a move to paperless production:

1. Review current process
 - a. Point out performance indicators
 - b. Recognize weak areas in workflow
 - c. Examine how information is disseminated
 - d. Identify printing statistics
2. Single out information silos
3. Outline an ideal operational model
4. Establish success benchmarks

about the added benefit of reducing your printing expenses—machines, machine supplies, upkeep, and of course paper.

The Value

We have stated the obvious. Now let's take a deeper look at the value proposition for moving to a paperless environment. Invest a few hundred dollars in each workstation and every one of them, at every step in the process, will get exactly the information they need. No lost cut sheets, no coffee spills on paperwork, no missed delivery, no running out of printer ink ... it just can't happen. The information the operator needs is there, on the workstation. If something goes wrong with production, the order goes right back to be re-submitted, and the next operator knows exactly what happened.

One single scan of the barcode displays everything your production worker needs to know. What's more, the information is interactive and searchable. Silos of information come

down and communication between work areas in the factory skyrockets. If you break a piece of glass or need to red-line an item for any reason, it is not a problem. Problems can be handled immediately, right at the workstation. End-to-end traceability gives your management team the information it needs to identify bottlenecks and improve workflow. When a customer inquiries about the status of an order, it is right there—no more running to the factory floor to find out. Finally, you reduce the hassle of scheduling with a centralized electronic system.

The Benefits

The production values are certainly there, but are there business benefits?

You bet. The ease of communication and improved efficiency on the shop floor goes right to your bottom line. You can reduce, if not eliminate, the time spent printing, physically running information, and dealing with mistakes. Your quality-control measures are based on real production data, so you can take steps to improve them. Increased efficiency reduces labor costs. And, let us not forget the benefits of improved communication between the back office and production workers, which is always a sore subject in the factory.

Just applying the items in the call-out column to your situation will put you well on your way to identifying your specific bottlenecks and issues. Adding the benefits of reduced errors, improved quality control and increased customer satisfaction may be all it takes for you to look into paperless production. ■

Andy Woods is the founder of Caliburn Inc., the parent company of OpenJanela.

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CODES AND STANDARDS

In Florida, Impact Codes Stir Debate

When you think “impact glazing,” one state comes to mind—Florida. And with good reason.

Florida has long been ground zero for devastating storms such as Hurricane Andrew in 1992. Because of that, it's also ground zero for strict coastal building codes that mandate the use of impact-resistant fenestration products. And last June, the requirements got even stricter.

A modification to the Florida Building Code that took effect then mandated much more stringent impact requirements that will have a major effect on door and window manufacturers and dealers doing business in Florida. At the same time, it also greatly increased the thermal efficiency requirements. According to the recently released *AAMA 2015/2016 Study of the U.S. Market for Windows, Doors and Skylights*, Florida represents 68 percent of the total U.S. market for residential impact windows.

So how has last year's code change affected the market in the Sunshine State as hurricane season gets underway? Depends on who you ask.

According to Amy Rahn, the marketing director for Tampa's New South Window Solutions, it's meant that aluminum monolithic windows in high-wind zones now face much stiffer competition.

“The aluminum monolithic window has dominated the Florida window market for years, especially for impact windows,” says Rahn. “This is true for both residential and multi-family. Now, the aluminum monolithic window cannot compete on the energy front and no longer meets code in the majority of the



state. This provides opportunity for vinyl windows. Also, much publicity around the change has helped, and now homeowners expect energy efficiency with their impact windows. Today, they can have both.”

However, there's been a lot of confusion surrounding the energy requirements of the new code with regard to impact windows, especially for renovations.

In October 2015, Frank LaPete of the Responsible Energy Codes Alliance (RECA) withdrew the petition for a declaratory statement he filed with the Florida Building Commission in July of that year. RECA sought a determination that all replacement fenestration in existing buildings must comply with U-factor and SHGC requirements consistent with the Florida Building Code. This would

have included renovations as well, a concern for many in the industry.

The practical effect of RECA withdrawing its declaratory statement is that Palm Beach, Broward and Dade counties will not require insulated impact windows in a home if the project costs less than 30 percent of the home's value, according to a report from WPTV in West Palm Beach. While big manufacturers such as PGT have developed insulating impact windows, retrofitting insulating glass onto impact units had proven troublesome and costly for many installers in South Florida.

“When you have insulating glass, the proper way to do it is the break-away layer and the insulating gap face the exterior side,” says Josh Boyarsky of Florida Impact Door Systems in West Palm Beach. “But that now

means your impact layer is inside the house and the tempered breakaway layer is on the outside of the house. It means with every sale, we have to ask the client if they want us to do it intentionally backwards or not, because now a piece of chewing gum thrown too hard could break your glass. The whole thing's been a mess."

The cost of the glass is prohibitive as well.

"I can get standard impact glass at \$10-\$12 per square foot," Boyarsky says. "Insulated units that have to run through autoclaves cost \$23 per square foot. If your door doesn't have

direct sunlight, there's no need to make home owners pay for such premium glass."

FINANCIAL Jeld-Wen IPO Brings Strengths— and Challenges—to Light

When Jeld-Wen filed its initial public offering (IPO) with the Securities and Exchange Commission on June 1, the filing offered insights into the future growth plans of this global manufacturer (*see related story, page 8*). "We are in the early stages of implementing our business transformation and, as a result, we believe we have an

opportunity to continue growing our profitability faster than the growth in our end-markets," The filing reads. "We believe that our focus on operational excellence will result in the continued expansion of our profit margin and free cash flow as we systematically transform our business."

Currently, 60 percent of Jeld-Wen's net revenues are in North America, 29 percent in Europe and 11 percent in Australasia. For North America, here's how it breaks down by product type: doors (57 percent); windows (33

continued on page 14

EVENT NEWS

Fenestration Canada Has WinDoor on its Mind

Planning for the revitalized WinDoor North America trade show was a major focus for Fenestration Canada's annual general meeting, held in Mont Tremblant, Quebec in early June.

In February, show organizers announced that the 2016 event will be held in Montreal for the first time after a long run in Toronto. WinDoor also is under new management. Zzeem Inc. is taking over operations.

A major goal of the new WinDoor is to push exhibitors to bring new products. Attracting more machinery companies will be another big focus. Both are departures from the past.

"It's important for people to realize it's a new show," said Stephane LaBelle of Groupe Eugenie, who serves on Fenestration Canada's WinDoor committee.

Other topics discussed included more engagement with dealers, contract glaziers and remodelers via educational programs.

Fenestration Canada and Zzeem also

promise a much more robust website for the event. When it eventually goes live, windoorshow.ca will feature extensive information about the show and an online registration form.

Changes to the WinDoor schedule include a possible pub crawl around Old Montreal after the show's first day and a social event on the show floor after the close of the second day. It would be similar to those at major European trade shows such as Fensterbau, which feature live music and plenty of food and drink.

"We want everybody to stay together and network for as long as possible," said LaBelle.

That spirit of staying close and socializing would extend to the planned educational sessions, which organizers hope to schedule earlier in the day to encourage attendees to hang around the exhibition hall and visit more booths.

Earlier, Fenestration Canada's membership committee met to discuss ways



to attract more small and mid-sized fabricators to the organization.

Geography is an issue. Canada's huge size might be preventing a lot of companies from participating. But it's also a plus. As one attendee noted, "you can talk to a fabricator who's 3,000 kilometers away, somebody you'll never compete directly against, and you can learn what they do."

► Check windoorshow.ca for more show updates.

percent); and other (10 percent). 52 percent of its revenue comes from the residential remodeling segment.

All this growth, which includes new product development, will require the hiring of additional personnel. In fact, according to the filing, the company has hired more than 20 engineers "who will work closely with our expanded group of product line managers to identify unmet market needs and develop new products."

All those products need to be marketed, and the IPO states there are plans for that as well. "We recently began to make meaningful investments in new marketing initiatives to enhance the positioning of the Jeld-Wen family of brands."

While the company has made several acquisitions in the past few years, it says there is still potential growth in new markets and geographies.

"We believe there are opportunities to expand our company through the

acquisition of complementary door and window manufacturers in new geographies as well as providers of product lines and value-added services. While this has not been a major focus in recent years, we expect it to be a key element in our long-term growth."

But with growth comes challenges, and the door and window maker highlights these for potential investors. This includes changes in building codes (including Energy Star standards) that could increase the cost of its products, as well as domestic and foreign governmental regulations that could increase the costs of business operations. Environmental regulations come into play as well.

"We may be subject to significant compliance costs with respect to legislative and regulatory proposals to restrict emission of greenhouse gases," reads the IPO.

Also, when outlining the risks, the

filing does state, "our indebtedness could adversely affect our financial flexibility and competitive position ... We are a highly leveraged company. As of March 26, 2016, we had \$1,246.1 million of term loans outstanding ..."

Other potential impacts include raw material costs of commodities including vinyl extrusions, glass, aluminum, wood, steel, plastics, fiberglass and other composites. "Changes in the underlying prices of these commodities have a direct impact on the costs of products sold."

When disclosing the company's consolidated financial results, net revenues decreased \$126.1 million or 3.6 percent in the year ended December 31, 2015. The company attributes this to an unfavorable foreign exchange impact of 8 percent. However, net revenues in North America increased \$26.1 million, or 1.3 percent, to \$2.015.7 billion.

EXPANSIONS

Cardinal to Open New Facility in Arizona

Cardinal IG Co. will build a new 200,000-square-foot manufacturing facility in Buckeye, Ariz., where it will fabricate insulating glass for the southwest region.

It will be Cardinal Glass Industries' tenth standalone insulating glass division location and the parent company's 37th manufacturing facility. Cardinal also produces float, coated, custom tempered and laminated glass.

"There's been a void in the Southwest market for high-quality insulating glass for quite some time," says Cardinal IG plant manager Clayton Watson. "We've had the U.S. pretty well covered other than this region. We've wanted a factory out here, and demand became so strong that it finally warranted we open one."

Watson says the facility aims to hire approximately 100 employees by the time it is fully operational in the

first quarter of 2017 and another 50 by 2019. He says a majority of those hires will be local.

"This is a wonderful day for the City of Buckeye and its residents, because it delivers new jobs right here into our community," says mayor Jackie Meck.

In 2015, the city became the first in Arizona to opt out of the collection of municipal sales tax for manufacturing operations, something Meck and Watson say helped draw Cardinal to the area. In early February, Meck began working with councilmembers, city management and staff to bring Cardinal to the city.

"We wanted a good, solid available workforce, and this city brought that," says Watson. "We were also on a fast track to get operations up and running, and they worked very close with us to keep pace with the project's goals."

He adds that elevation and proxim-

ity to the customer base were also key drivers in the decision to set up shop in Buckeye.

The facility is in the process of planning its senior staff, and from there, employees for production and other departments will be hired. Those employees will then be sent to other operating Cardinal IG facilities for training during the new plant's construction.

As part of its economic development agreement with Cardinal, the city will purchase approximately ten acres of its site for a regional water campus. The city purchased key water infrastructure in the area last year.

The purchase sale agreement for the water campus and development agreement were approved Tuesday at a Buckeye City Council meeting. They will become legally binding once Cardinal IG Co. completes the purchase by the end of July 2016. **I**

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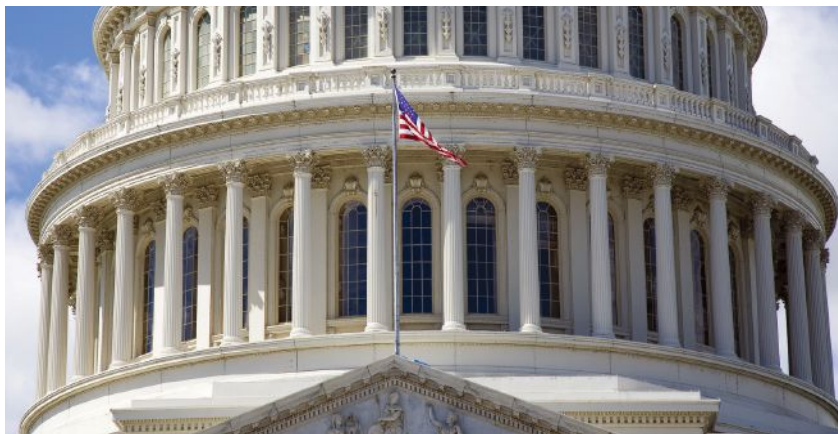
LEGISLATION

Revised Energy Bill Passes House, Heads to Conference Committee

The U.S. House of Representatives recently approved an amended version of the comprehensive energy bill that the Senate passed in April. It now goes to a joint congressional conference committee, where differences will be resolved to ensure that President Obama signs the final bill.

The House approved the revised energy bill by a 241-178 vote. House Republicans replaced the bipartisan Senate bill with their earlier version, which the Obama administration has pledged to veto.

The revised House legislation, which originally passed in December 2015, includes several additional energy and natural resources bills. But it doesn't have an amendment from the Senate bill that directs the Federal Housing Administration (FHA) to incorporate energy efficiency savings from doors, windows and skylights



when evaluating financial eligibility for an FHA-insured mortgage. That measure is strongly supported by the Window and Door Manufacturers Association (WDMA) and was a focus of the organization's lobbying efforts on Capitol Hill in April.

However, the revised House bill does contain one amendment supported by WDMA. It defines what

technical assistance the Department of Energy (DOE) can provide in developing new model energy codes and guarantees that certain products and technologies don't receive preferential treatment. The legislation promotes the development of efficiency targets for buildings that strike the proper cost-benefit balance, ensuring that home owners and builders are not burdened by unreasonable regulations. It also would prevent DOE from supporting any code or standard change proposal that results in a pay-back period of more than ten years.

EVENT NEWS

EE Global Forum Puts Efficiency Front and Center

The 2016 Energy Efficiency (EE) Global Forum, held recently in Washington, D.C., featured a major announcement about corporate commitment to a greener future.

Mark Kenber, CEO of The Climate Group, unveiled the EP 100 global campaign, which encourages influential businesses around the world to double their energy productivity, a measure of economic output per energy use. A big part of that will involve the construction of energy-efficient buildings with high-performance glazing.

"Companies that want to make big energy productivity commitments with regard to buildings are working on three things," said Kenber. "One is lighting, one is motors, and a big one is definitely insulation, which includes high-performance windows and glass."

Other announcements at the EE Global Forum also focused on energy efficiency in buildings.

The Alliance to Save Energy, which sponsors the EE Global event, unveiled its Systems Efficiency Initiative (SEI) Year 1 report, *Greater than the Sum of its Parts: The Case for a Systems Approach to Energy Efficiency*. The study looks at how a systems-efficiency approach to building design, construction, operation and maintenance can lead to greater energy savings.

CODES

ASSA ABLOY Adds New Health Product Declarations

ASSA ABLOY has issued Health Product Declarations (HPDs) for 21 door and hardware products.

The Health Product Declaration is an open standard for reporting material contents and potential health hazards. An HPD is a transparent way for manufacturers to disclose contents and ingredients in their products to customers, suppliers, certifiers, and building standards organizations, making for a healthier built environment. **I**



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Is OSHA Over-Ruling?

Agency's Rulemaking Spree has Industry on Edge

BY TREY BARRINEAU

From stringent new injury-reporting requirements to a controversial crystalline silica rule that's led to legal challenges, the Occupational Safety and Health Administration (OSHA) has been busy lately.

Maybe too busy, if you ask many business owners.

"I think most companies are kind of overwhelmed by all this in an 'oh my gosh, Big Brother' kind of way," says Terry Burkhalter, an authorized OSHA instructor and vice president of risk control services with Willis Towers Watson in Knoxville, Tenn.

The agency clearly does important work that saves lives. According to the Bureau of Labor Statistics, 4,821 workers died on the job in 2014. By comparison, when the government created OSHA 43 years ago, there were more than 14,000 occupational fatalities in the U.S. each year in a workforce that's about half the size of today's.

And while there's little doubt that dozens of OSHA regulations make workplaces safer in ways most people rarely notice, the current wave of regulations should grab a lot of attention from manufacturers and installers of doors and windows. *DWM* surveys the most important recent changes and how they will affect the industry.

Put Everything Online

Perhaps the biggest recent change is a new requirement that will put the entire injury and illness history of most U.S. companies into a searchable online database.

In May, OSHA implemented the "Improve Tracking of Workplace Injuries and Illnesses" rule. It requires employers in high-hazard industries, including manufacturing and con-

struction, to send injury and illness data straight to OSHA every year. The agency will then post that information on its website. The new requirements take effect in August 2016, with phased-in data submissions beginning in 2017.

According to OSHA, the concept is akin to the sanitary grades that restaurants display.

"Since high injury rates are a sign of poor management, no employer wants to be seen publicly as operating a dangerous workplace," says David Michaels, assistant secretary of labor for occupational safety and health. "Our new reporting requirements will 'nudge' employers to prevent worker injuries and illnesses to demonstrate to investors, job-seekers, customers and the public that they operate safe and well-managed facilities. Access to injury data will also help OSHA better target our compliance assistance and enforcement resources at establishments where workers are at greatest risk, and enable 'big data' researchers to apply their skills to making workplaces safer."

Burkhalter says there's an admirable motive behind the new rule.

"I like the accountability factor," he says. "In the past, OSHA didn't know your safety record unless for some reason they came in there or they petitioned you to send it in for the Bureau of Labor Statistics surveys. But really, there was no penalty if you didn't."

However, he says the new flood of injury and illness data could be grounded in more mundane concerns, such as an effort to overcome one of OSHA's most persistent problems—understaffing.

In 2015, OSHA's Michaels told a congressional hearing that it would

take his agency 140 years to inspect every U.S. workplace at its current staffing levels. That's because nationwide, there are only 1,840 inspectors to cover eight million workplaces, according to the 2016 *Death on the Job* report from the AFL-CIO.

"I think the general purpose of the new rule is to have information flowing into (OSHA) so they're more efficient in getting out and making inspections of companies they view as having potential problems based on what they're seeing in the OSHA logs," Burkhalter says.

While "big data" and better targeting of enforcement might help, those chronic low staffing levels could make implementing the new rule difficult, says Burkhalter.

"Obviously, that's going to be a whole lot of information that OSHA's about to receive, and they've been pretty swamped since January 1," he says. (That's when the new Severe Injury Reporting Program went into effect. It requires employers to report work-related amputations, in-patient hospitalizations or the loss of an eye within 24 hours.) "That's pretty much overwhelmed them."

A host of questions arise around compliance. What will huge corporations have to do to meet the new requirements?

"If they've got 142 locations, how are they going to report that to OSHA?" Burkhalter said. "One report or 142 reports? There will be a lot of discussion around that."

It's also possible that the new reporting rule would affect smaller companies more than larger ones, because they'd be more likely to attract OSHA's attention.

"If I'm G.E. and have ten accidents

The Bottom Ten

The most common OSHA safety citations in the building materials industry:

Based on OSHA statistics from January 2011 to March 2014.

Forklifts	71	Electrical.....	20
Failures of hazard communications	38	Fire Extinguishers.....	18
Respirators	29	Woodworking.....	18
Wiring	28	Exits.....	18
Guardrails/holes.....	22	Machinery.....	15

Source: The Learning Factory



in 500 plants, I can kind of hide that in the numbers,” Burkhalter says. “It looks like a much smaller percentage. But if I only have one facility and there’s two incidents, that could look really bad to OSHA. Right now, we don’t know the criteria they’re going to use to inspect.”

Another major area of concern is the rising use of temporary workers. According to a 2015 study by the Center for Construction Research and Training, temps represent about 13 percent of workers in construction and about 3.5 percent of laborers in manufacturing. If one of them gets hurt inside your facility or on your jobsite, it’s on you.

“Temps go on your OSHA log,” says Burkhalter.

One door and window manufacturer has already been hit with citations involving temp workers.

In September 2015, Dyke Industries, along with its staffing agencies Staff Right Inc., and Select Staffing, received a total of \$66,000 in proposed penalties from OSHA.

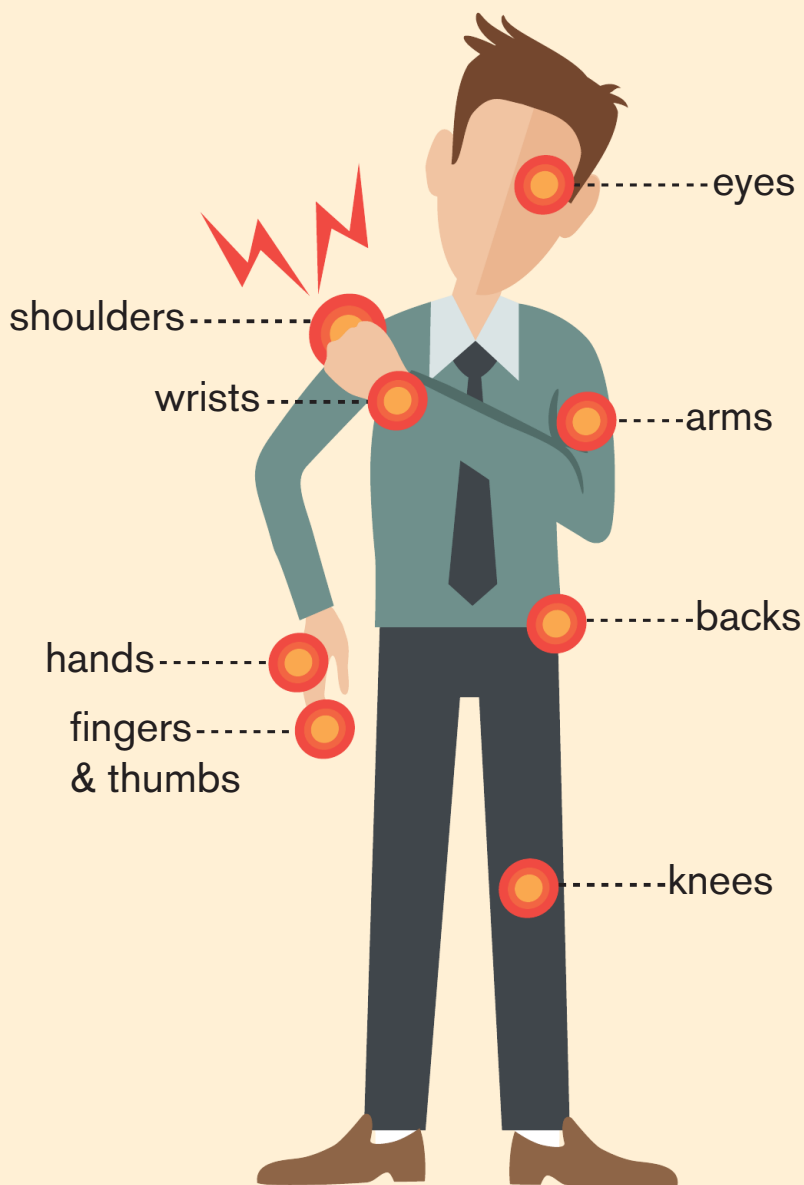
“All workers, including temporary employees, deserve a safe and healthy workplace,” Bill Fulcher, director of OSHA’s Atlanta-East Area Office, said in a release.

There are other legal, ethical and moral issues surrounding the new rule, which several organizations pointed out when it was announced.

“OSHA created a rule that does nothing to achieve its stated goal of reducing workplace injuries and illnesses and ignored the concerns from industry that this rulemaking will have unintended negative consequences,” said Greg Sizemore, the vice

Danger Zones

These are the most frequently injured body parts in the fenestration industry, according to Terry Burkhalter, an authorized Occupational Safety and Health Administration (OSHA) instructor and trainer:



Source: Willis Towers Watson; presented at the AAMA Fall Conference in October 2015.

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Is OSHA Over-Ruling?

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president of health, safety, environment and workforce development for Associated Builders and Contractors (ABC). "In departing from its current 'no fault' recordkeeping system, OSHA has empowered itself to disseminate records and data to the public that fails to show the complete narrative of a company's safety record or its efforts to promote a safe work environment."

Sizemore also said OSHA has "exceeded its authority by forcing companies to reveal confidential business details to the public" and "will give competitors undue access to business processes that should remain confidential."

The Coalition for Workplace Safety (CWS), which participated in the rulemaking process for electronic recordkeeping, said the new measure will hurt U.S. businesses.

"Without authority to do so, OSHA intends to post employer, location and incident specific injury data," CWS co-chairs Marc Freedman and Amanda Wood said in a joint statement. "The CWS is especially concerned about the damage that could come from the disclosure of sensitive and proprietary information—which companies go to great lengths to protect. Just as troubling will be the mis-characterization that will result when incidents, such as bee stings, slips and falls, and even heart attacks that do not reflect an employer's safety culture are posted. ... Publicizing this data makes the mere recording of any injury an act of disclosure with associated negative impacts."

Other problems that could arise include worker recruitment and retention, especially at a time when the manufacturing and construction sectors are facing unprecedented labor shortages; negative advertising that uses information from the new OSHA database; and organizing efforts by labor unions.

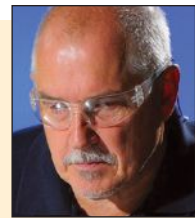
"Unions are notorious for throwing up the safety record of a company when they're trying to organize," Burkhalter says. "That's one of the big sticks they use. Everybody knows the

When Tragedy Strikes

While the fenestration industry generally has an excellent safety record, there have been at least two accidental deaths at businesses that manufacture doors and windows during the past two years.

Tim Harris: The technical services manager for Quanex Building Products died in April 2015 in Glendale, Ariz., while visiting a door and window manufacturer. A forklift was involved in the accident.

Steven Amdall: The maintenance worker was crushed to death at an aluminum extruding plant near Dallas in November 2014 while working on a 9-inch press line.



Tim Harris



Steven Amdall

current administration is very pro-union. Who's going to have access to this information?"

But Burkhalter says the biggest concern among lawyers he's talked to is the security of the information that's being sent to OSHA.

"As with any program you roll out, you have to kind of wait and see, but how secure is this information from hacking, and who's got oversight of it on the other end?" he says. "Other than just the privacy issues, you've got the potential for people losing information or making it available where it shouldn't be."

The Silica Rule

In March, OSHA created a big stir in the fenestration industry when it issued the final version of its controversial silica rule, which aims to limit workers' exposure to crystalline silica.

The rule, which has been in the works since 2013, reduces the permissible exposure limit (PEL) for respirable crystalline silica to 50 micrograms per cubic meter of air, averaged over an eight-hour shift. It also requires employers to implement engineering controls, offer medical exams and develop a control plan.

The fenestration and construction industries are pushing back hard against the new regulation, and in April, eight construction industry organizations filed a petition for review of the rule with the U.S. Court of Appeals for the Fifth Circuit.

Other groups expressed concern and criticism.

Glass Association of North America (GANA) executive vice president Bill Yanek says silica is indispensable to flat glass production, adding that the industry has worked hard to reduce workers' exposure to it.

"Requiring the flat glass manufacturing industry to completely redesign their operating furnaces and other manufacturing equipment and processes is not merely unreasonable as a matter of policy but also beyond OSHA's legal authority," says Yanek.

The National Association of Home Builders also said it's troubled by the rule.

"NAHB has long advocated the importance of the rule being both technologically and economically feasible," says Ed Brady, NAHB chairperson and a home builder and developer from Bloomington, Ill. "While we're still reviewing the final rule, we're concerned that it may not adequately address these issues and take into consideration real-world application."

Last year, the Construction Industry Safety Coalition (CISC) released a study claiming the rule will cost the U.S. construction industry \$5 billion per year—roughly \$4.5 billion per year more than OSHA's estimates. The coalition cautioned that the flawed cost estimates reflect deeper problems with the rule and urged the federal agency to reconsider its approach.

"The cost and impact analysis from OSHA reflects a fundamental misunderstanding of the construction indus-

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“Our team relies on FeneVision to help Lindsay Windows grow.”

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Is OSHA Over-Ruling?

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try,” reads a CISC statement. “The OSHA analysis included major errors and omissions that account for the large discrepancies with the CISC report.”

OSHA says approximately 2.3 million workers, mostly in construction, are exposed to respirable crystalline silica in their workplaces. It estimates the rule “will save over 600 lives and prevent more than 900 new cases of silicosis each year” and “is projected to provide net benefits of about \$7.7 billion, annually.”

The construction and general industry standards took effect on June 23. The construction industry has until June 23, 2017 to comply, while the general industry has until June 23, 2018.

Whistleblowers Anonymous

Whistleblowers have been a big focus for OSHA since it was established in 1970. The agency safeguards workers from retaliation for providing protected information to their employers or the government.

It's also an area that has the potential to generate the most revenue for the cash-strapped agency. Most whistleblower penalties include fines that can range from five to six figures. That's on top of years of back pay for the workers involved.

“The thing about the whistleblower cases—that's the million-dollar cup of coffee right there,” says Burkhalter.

For example, in April 2012, OSHA

ordered Jersey Window Factory & Building Supply Inc., of Newark, N.J., to reinstate a truck driver who was fired after reporting safety concerns about the commercial vehicle he was driving. It also ordered to company to pay him nearly four years in back wages and bonuses, plus \$18,000 in compensatory damages.

However, despite some high-profile cases, OSHA's track record with whistleblower cases isn't impressive.

In 2014, 1,865 whistleblower complaints were filed with OSHA, according to statistics from Willis Towers Watson. But only 13 were determined

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Experts in the fenestration industry share their tips for a safer workplace.

Don't Be Complacent

Mike Burk of Fenestration Fundamentals LLC, who chairs the Insulating Glass Manufacturers Alliance's glass safety awareness program, told members at a recent meeting of the American Architectural Manufacturers Association that it's important to remain vigilant about conditions in your plant, as well as the state of your employees' personal protection equipment (PPE).

Wear the Best

Speaking of PPE, Burk said glass companies should ensure they're using the “latest and greatest.” Also, be clear on the purpose/capabilities of each piece of PPE. “Stress the fact that it's not ‘cut-proof,’ but that it's ‘cut-resistant’—things like that,” he said.

Teachable Moments

Close calls and near-misses inside a plant can be scary, but it's important to find out what happened, why it

Be Careful Out There

happened and what you can do to prevent it from happening again, Burk said. Additionally, employees should be assured that they won't be punished, because it might make them afraid to report accidents.

Watch for Workarounds

Burk says these jerry-rigged shortcuts are a sure sign that something is wrong. “If you're walking around the plant and see things like sticks and pokers, people working around these things, ask, ‘What's wrong with this process?’” he said. “If you find this stuff in the working area, remove it, and find out why they're using the device. They can get pretty creative when they don't want to shut down production.”

Beware the Bottlenecks

Places in a window plant where production crawls to a halt and materials stack up can be dangerous, says Mike McHugh of Integrated Automation in Bedford Heights, Ohio. Glass is the most notable hazard. “We have been creative with glass loading,” he says. “That and gas filling are the biggest bottlenecks in the plant—mainly glass loading.”

Glass is Heavy

The weight of glass can't be underestimated, Burk said. “You can't just guess. It may be a triple unit, it may be

laminated. It may be thicker than you would've guessed.”

Stay Inside the Forklift

Forklifts are immensely useful, but they're also the No. 1 workplace hazard, DWM blogger Jim Plavecsky wrote in a recent online column. He cited OSHA statistics showing that 80 to 100 workplace deaths a year are attributable to the motorized vehicles. One reason they're so dangerous is because they're prone to tipping over. When they do, many operators panic and try to exit the vehicle, resulting in death or severe injury. Plavecsky says it might be counterintuitive, but it's much safer to stay inside a forklift when it tips over.

Watch the Wiring

Exposed wiring is at the forefront of potential OSHA citations, said Regina McMichael of the Learning Factory during a recent safety webinar. So cover it up. “For the kind of exposures we have, the only appropriate solution is to engineer the hazard away,” she said. “The best possible solution [could be] to quite simply put a cover on [exposed wiring].”

Take a Hike

McMichael also urged business owners to frequently inspect their facilities for problems. “Walk your site,” she said. “Look and fix as you go.”

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Is OSHA Over-Ruling?

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to have merit, 954 were dismissed and 427 were withdrawn. A similar pattern extends back to at least 2010.

Again, staffing is a major concern. A 2010 story from Mother Jones detailed the heavy workload for OSHA's small group of whistleblower investigators.

"A whistleblower investigator can realistically handle six to eight cases at a time, OSHA says. But in several regions of the country, they average 20 or more," the magazine reported. "In one region, the average is a whopping 32 open cases—and one investigator had 69, according to data obtained under the Freedom of Information Act."

Ironically, perceived problems within the program have even led to a whistleblower lawsuit recently being filed against OSHA by one of its former employees.

According to a report from inves-

tigative news organization Fair Warning, Darrell Whitman claims he lost his job as an investigator with the San Francisco regional office of OSHA's Whistleblower Protection Program because he complained to agency officials—including Labor Secretary Thomas Perez—that many legitimate whistleblower cases weren't being prosecuted.

Incentives—Positive and Negative

Does your workplace have an incentive plan in place that rewards employees for accident-free days? (Think paycheck bonuses, small prizes or even pizza parties.) How about blanket drug testing requirements in the aftermath of an accident? If so, you might want to reconsider both policies in light of recent OSHA actions.

In March 2012, Richard Fairfax,

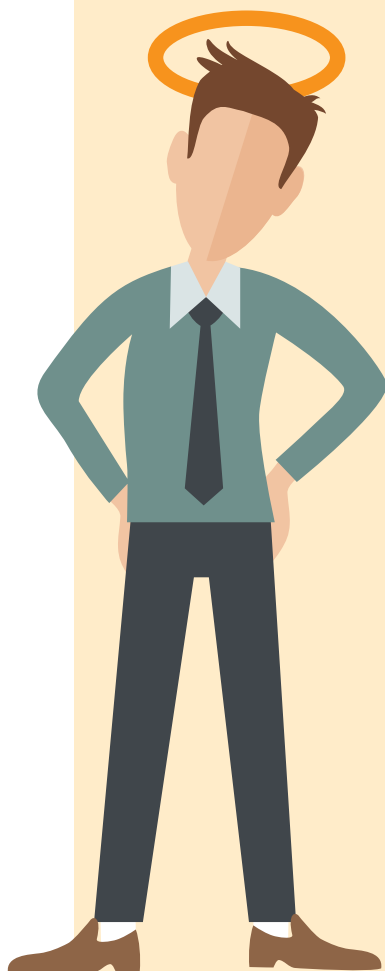
OSHA's deputy assistant director, sent a memo to the agency's regional administrators and Whistleblower Program managers that laid out acceptable and unacceptable safety incentive programs.

"Some employers establish programs that unintentionally or intentionally provide employees an incentive to not report injuries," Fairfax wrote. "For example, an employer might enter all employees who have not been injured in the previous year into a drawing to win a prize, or a team of employees might be awarded a bonus if no one from the team is injured over some period of time. Such programs might be well-intentioned efforts by employers to encourage their workers to use safe practices. However, there are better ways to encourage safe work practices, such as incentives that promote worker participation in safety-related activities, such as identifying hazards or participating in investigations of injuries, incidents or 'near misses.'"

Post-accident drug testing, meanwhile, could become a thing of the past under OSHA's new reporting rule, because the agency thinks it might make employees think twice about going on the record with injury claims.

"The final rule does prohibit employers from using drug testing (or the threat of drug testing) as a form of adverse action against employees who report injuries or illnesses," OSHA's new rule reads. "To strike the appropriate balance here, drug testing policies should limit post-incident testing to situations in which employee drug use is likely to have contributed to the incident, and for which the drug test can accurately identify impairment caused by drug use. For example, it would likely not be reasonable to drug-test an employee who reports a bee sting, a repetitive strain injury, or an injury caused by a lack of machine guarding or a machine or tool malfunction."

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Focused on Safety

While OSHA violators often grab the headlines, the agency also thinks it's important to recognize companies that get safety right.

OSHA's Voluntary Protection Program (VPP) "promotes effective worksite-based safety and health," according to OSHA's website. "In the VPP, management, labor and OSHA establish cooperative relationships at workplaces that have implemented a comprehensive safety and health management system. Approval into VPP is OSHA's official recognition of the outstanding efforts of employers and employees who have achieved exemplary occupational safety and health."

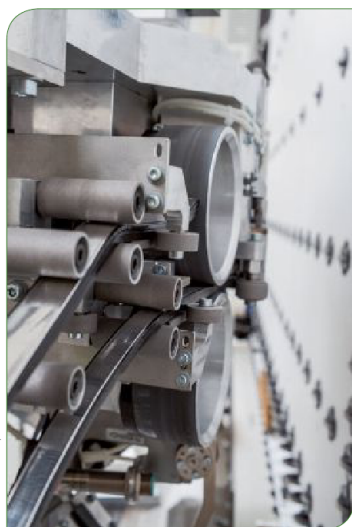
Here are some companies in the fenestration industry that participate in the VPP:

- Azko Nobel
- Covestro
- Dow/DuPont
- H.B. Fuller
- Huber Engineered Woods
- Jeld-Wen
- Marvin/Integrity
- Ply Gem
- ProVia
- Sherwin Williams
- Valspar

Source: OSHA

For Large Format IGU, Sedak Sets a New Standard

Automated processes have allowed insulating glass manufacturers to achieve new levels of efficiency and cost-effectiveness for several years. But there's no manufacturer out there quite like sedak, a German glass manufacturer that has broken boundaries for large format insulating glass unit (IGU) production.



The company's Gersthofen, Germany, manufacturing facility is home to the world's largest, fully automated production line for double and triple insulating glass, for formats up to 49 feet in length. With its innovative and advanced production techniques, sedak enables groundbreaking architectural designs that require large scale, high performance glass. The line, completed in 2015, has significantly enhanced productivity and has allowed sedak to go beyond the limits of what was previously physically and technologically possible for specialty architectural projects.

Higher Performance, Superior Aesthetics

Large format IGU requires significant power and load bearing capacity, as a single glass element can weigh over 8 tons. These enormous units pose significant challenges during transportation along the line, particularly when it comes to the application of spacers. For its flexibility, performance and aesthetic benefits, sedak utilizes Quanex's Super Spacer® T-Spacer™ for its large format IGUs.

During production, an acrylic adhesive connects the flexible spacer to the panes and ensures the necessary strength to further transport the glass element without lateral displacement to the sealing unit immediately following the lamination process. Super Spacer T-Spacer offers superior durability, effectively eliminates the potential for thermal stress drops along the edge seal, and minimizes tension on the edge sealant.

Transparent aesthetics are sedak's hallmark, and the precise positioning offered by Super Spacer T-Spacer is a significant benefit. The spacer's discreet appearance, along with the

robotic precision of sedak's manufacturing process, guarantees flawless edges without unsightly transitions or joints. The line not only boosts efficiency of production to unmatched levels, but enables repeatable, precise aesthetics for the most forward-thinking designs.

Working with Super Spacer T-Spacer enables greater efficiency than comparable spacer products and is uniquely suited to the innovative production process used by sedak. The product offers fast, straightforward application with accurate corner formation, requires no additional filling with desiccant or corner brackets, and requires no wait time for curing.

"Production efficiency would mean very little if the end product weren't up to snuff when it comes to performance," said Johannes von Wenserski, Prokurist, Edgetech Europe GmbH. "Being a part of sedak's innovative IGU line and delivering an unmatched combination of efficiency, performance and design aesthetics is something that we're very proud of."

Continued on page 2





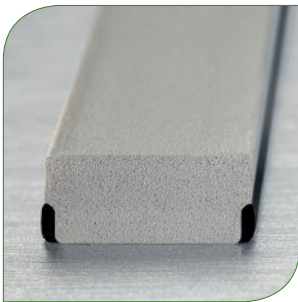
Continued from page 1: Large Format IGU, Sedak

Innovation Inside and Out

The Super Spacer® T-Spacer™ triple-seal system meets the most stringent commercial requirements, including silicone structural glazing (SSG), enabling sedak to deliver the highest level of IGU performance no matter the design demands.

As sedak continues to serve forward-thinking architecture and design products with superior insulating glass, Quanex's Super Spacer T-Spacer will continue to be a critical part of the manufacturing process, boosting efficiency and performance without sacrificing aesthetics.

Super Spacer T-Spacer features:



- T-shaped structural silicone warm-edge spacer
- Two-sided acrylic adhesive, allowing immediate handling of units
- Polyisobutylene seal, for enhanced gas retention and low moisture vapor transmission
- High performance multi-layer vapor barrier film
- Outer silicone seal for proven structural glazing applications, and polyurethane or polysulfide sealants for all other applications.

Super Spacer T-spacer enables IGU with low thermal conductivity, no chemical fogging, and superior resistance to ozone, UV light and oxidation.

For more information on Super Spacer T-Spacer, visit www.quanex.com.

For more information on sedak's IGU manufacturing equipment, visit www.sedak.com/en/image-film.



Intricate Design Demands Uncompromised Performance

Shopping centers around the world have evolved from boxy indoor malls to beautiful community hubs, where architecture and functionality come together for new and elegant shopping experiences. Kompassen, a shopping mall in Gothenburg, Sweden, fits in with this trend, and a recently constructed glass façade at the location showcases how advanced technology and tradition came together for something truly unique.

Architectural firm Ågren Arkitekter envisioned the project as a true combination of old and new by using traditional Swedish art glass and modern façade technology. Designers set out knowing that the façade could only be made from tested, demonstrably durable materials while balancing aesthetics, functionality and cost-effectiveness—a hefty ask that Quanex helped deliver upon.

What resulted of the two-year development process is a sight to behold, with more than 5,700 individual pieces of amber-colored cast glass (sourced from Målerås Glasbruk in Småland, Sweden) mounted on mirror glass in the same fashion as an insulating glass unit (IGU). The technique created an extensive, stunning, eye-catching façade that delivers the high performance of insulating glass.

Ågren Arkitekter partnered with Swedish building envelope firm Skandinaviska Glassystem (SGS) to make this challenging design a reality. Ågren Arkitekter and SGS credited the successful design to the collaborative approach

taken by those involved, including Quanex, who supplied the project with its Super Spacer® TriSeal™ Premium Plus warm-edge spacer.

“Only the close cooperation of all parties involved facilitated the perfect matching of each individual component to form a unique overall work of art which we can all rightly be proud of,” said Erik Stening, project manager with SGS, adding that Quanex’s Super Spacer technology was a great fit for the Kompassen façade. The flexible warm-edge spacer is designed to satisfy the toughest commercial glazing demands, and its unique triple-seal design helps promote enhanced gas retention and low moisture vapor transmission. It simultaneously offers flexibility, efficiency and durability, all necessary for any state-of-the-art glass architecture project.

The Kompassen project comes as Edgetech Europe has expanded its production facilities in Heinsberg, Germany, with the addition of a Super Spacer® TriSeal™ line. The new line enables Edgetech Europe to more quickly serve its European customers as demand for energy-efficient, quality window components continues to grow.



A Trusted Product, Now Made in the U.S.A.

Quanex Building Products is consistently working to bring new products and solutions to the market that meet both the industry's growing needs and customer demands. It's this drive that led to the company's decision to offer Edgetherm® 3400 Desiccated Matrix, a product backed by decades of expertise.

And now, Quanex has brought production of Edgetherm 3400 to its Cambridge, Ohio, facility, in an effort to more effectively meet demand for this high-quality desiccated matrix.

Together in cooperation with Quanex ally Bostik, the Edgetherm 3400 product brings more than 70 years of combined butyl expertise to the market and more options to the industry. This combined expertise, along with the market history and commitment to quality, will deliver upon customer demand, unlocking greater choice and more options to help manufacturers to create more efficient practices for their business.

The Edgetherm 3400 matrix delivers optimum absorption for both existing and invasive moisture for insulating glass. The matrix will not transfer onto a gas filling probe, providing a neater and easier process for gas filling. Available in a gray color option, the product has a water capacity of 11.5 percent by weight (b/100 g matrix), an application temperature range of 240 to 260 degrees Fahrenheit (116 to 127 degrees Celsius) and a specific gravity of 1.25 grams/cm3.



For more information about this product, visit us at booth 1328 at GlassBuild and visit www.Quanex.com.

Get Ready for GlassBuild 2016

The window and door industry's biggest tradeshow, GlassBuild America 2016, will be here before you know it, and Quanex is looking forward to joining and sharing as some of the brightest minds in the building and construction industry come together once again.



This year's event, held October 19-20 in Las Vegas, is expected to see more than 400 exhibitors and thousands of attendees. Few other events throughout the calendar year offer such opportunity for networking and education with glass professionals from around the world—it's an exciting place to be.

Quanex, exhibiting this year at Booth #1328, will bring its 200 years of advanced, field-proven technologies and expertise to the show. Our experts can't wait to introduce Quanex's new solutions to some of the industry's most pressing needs.

Quanex will introduce the Imperial RollTrusion® Sill, featuring Quanex's patented RollTrusion® technology to

form the industry's toughest threshold.

Quanex's innovative combination of roll-formed metal and extrusion-grade thermoplastic is crush, rot and thermal resistant, maintaining top performance no matter the conditions. The Imperial RollTrusion Sill is customizable to work seamlessly in any existing system, and is available in a variety of door configurations including singles, continuous sidelite, patio and French.

Additionally, Quanex recently introduced the High Heat Glazing Bead solution, developed to help prevent shrinking and deformation caused by solar-intense and high-heat environments. Also featuring RollTrusion technology, Quanex's high-heat glazing bead solution has been tested up to 220°F with no shrinkage or deformation observed.

As always, Quanex will participate in a range of educational sessions and workshops. We're looking forward to the conversations and the knowledge exchange at this one-of-a-kind industry event—we hope to see you there!

Is OSHA Over-Ruling?

continued from page 24

Unions and OSHA

Can OSHA take part in union activities? For decades, it seemed the answer was a definite no. But that might be changing.

In February 2013, OSHA's Fairfax sent a letter of interpretation to Steve Sallman, a health and safety specialist with the United Steelworkers Union, asserting that union representatives can accompany OSHA inspectors at non-union worksites.

According to Ben Huggett of the Littler law firm in Philadelphia, "this ruling contradicts the plain language of OSHA's governing regulation ... as well as longstanding agency guidance and past interpretations. OSHA's action in allowing unions and other organizations to participate in its inspections, even where they do not formally represent a majority of employees, threatens to disrupt OSHA's primary mission by embroiling the agency in representation organization and community disputes," Huggett wrote in an April 2013 post on his firm's website.

Another Littler attorney, Maurice Baskin, testified before the House Subcommittee on Workforce Protections in February 2014 that Fairfax's letter violates the National Labor Relations Act and the Occupational Safety and Health Act.

"By allowing outside union agents and community organizers access to non-union employers' private property, OSHA is injecting itself in to labor-management disputes and casting doubt on its status as a neutral enforcer of the law," Baskin said.

At the same hearing, attorney Randy Rabinowitz presented the pro-labor argument, saying that OSHA has always honored employees' right to choose their own representatives during safety inspections.

"Enterprise-Wide Abatement"

In December, Judge Carol A. Baumerich ruled that the Occupational Safety and Health Review Commission may have authority under the Occupational Safety and

Helpful Regulations



Many OSHA regulations have helped the door and window industry. They've created safer workplaces and increasing production of important materials.

In 1974, the agency established a permissible exposure limit of 1 part per million for workers exposed to vinyl chloride, a flammable, carcinogenic gas that's used to make polyvinyl chloride (PVC), or vinyl. OSHA's standard slashed worker exposure to the gas and made the PVC production process more efficient. Thanks in part to that, sales of vinyl windows took off, and they now represent about 70 percent of the U.S. market, according to the American Architectural Manufacturers Association (AAMA).

In 1989, OSHA issued the lockout/tagout standard. That helps protect employees from the unexpected start-up of machinery and equipment during maintenance. According to OSHA, the standard prevents an estimated 120 fatalities and 50,000 injuries each year in manufacturing facilities, including those for doors and windows.

OSHA has also established many construction-related safety standards that make window installation much less dangerous, such as fall prevention and personal protection equipment (PPE).

Health Act to enforce measures at other locations operated by a company that's violated OSHA regulations. It's called enterprise-wide abatement, and it's not uncommon in negotiated settlements that OSHA reaches with violators. However, the case involving freight hauler Central Transport LLC might be different, because it involves a business that OSHA is in "contentious litigation" with, according to *Business Insurance*.

Burkhalter says keep an eye on this one.

"Several OSHA attorneys I work with feel this is a one-time event that OSHA has chosen to publicize," he told *DWM* at the time. "However, it bears watching to see if it happens again. OSHA likes to publish severe violators. I think this may fall more toward that end than a legal precedent."

It could also be another example of the agency trying to stretch its staff and funding as far as it can.

"The ... ruling is part of what appears to be OSHA's attempt to expand its enforcement reach even though its resources are limited," Travis Vance, an attorney with Fisher Phillips in Charlotte, N.C., wrote in April at *JD Supra Business Advisors*. "Given a tighter budget, the agency wants to remain effective while completing fewer inspections."

In November 2014, Central Transport LLC was facing \$330,800 in OSHA fines for four violations at its shipping terminal in Billerica, Mass. Central Transport contested the decision with the independent Occupational Safety and Health Review Commission in December of that year.

In its complaint to the Commission, the Labor Department claimed that Central Transport failed to comply with OSHA standards for forklift safety at locations other than the inspected worksite. It sought to enforce compliance at the company's 170 facilities across the country. Central Transport then filed a motion asking the Commission to strike the department's claim for enterprise-wide abatement, arguing that the Occupational Safety and Health Act doesn't allow it.

Judge Baumerich denied Central Transport's motion, ruling that the Occupational Safety and Health Act's provision for "other appropriate relief" allows the department's claim for abatement at all locations where similar violations exist to proceed to trial. **I**

Trey Barrineau is the editor of *DWM* Magazine. USGlass assistant editor Nick St. Denis contributed to this story.

On the Fast Track

DWM's Fourth Annual List of Fastest-Growing Dealers

BY TARA TAFFERA

DWM's annual list of its fastest-growing dealers is always a good mix of big and small, and this year is no different. Those that made the cut hail from the South to the West with annual sales that span a wide range, proving that companies of any size can grow and be successful. Our group includes a small one-man-show start-up and a dealer who projects \$19 million in sales. More important than the numbers, however, is the growth, and the things that set them apart from the rest. It's everything—from their process to the fact that they are out pounding the pavement, and for one it was investing in a software package.



\$.63 MILLION

Liteworks Window and Door Marietta, Ga.

2014 Annual Sales: \$1.22 million
2015 Annual Sales: \$2.35 million
2016 Projected Sales: \$2.98 million

05

'14 '15 '16



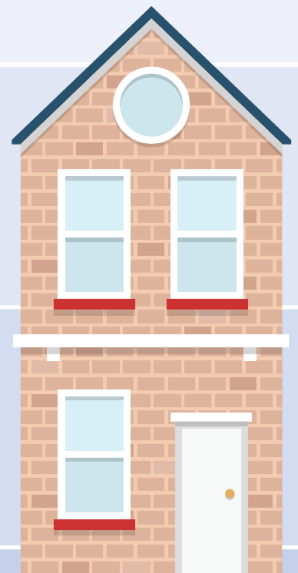
\$1 MILLION

Windows, Doors and More Seattle, Wash.

2014 Annual Sales: \$6.6 million
(27 percent increase year over year)
2015 Annual Sales: \$8 million
(21 percent increase year over year)
2016 Projected Sales: \$9 million

04

'14 '15 '16



\$1.9 MILLION

Exovations of Atlanta Cumming, Ga.

2014 Annual Sales: \$10.3 million
2015 Annual Sales: \$10.8 million
2016 Projected Sales: \$12.7 million

03

'14 '15 '16

2016 Projected Growth



\$2.2 MILLION

California Energy Consultant Service

Rancho Cordova, Calif.

2014 Annual Sales: \$4.4 million
2015 Annual Sales: \$4.8 million
2016 Projected Sales: \$7 million

02



\$3.8 MILLION

Weather Tite Windows

Tampa, Fla.

2014 annual sales: \$15.8 million
2015 annual sales: \$18.9 million
2016 Projected Sales: \$22.7 million

01



\$5M

\$4M

\$3M

\$2M

\$1M

If you're a fast-growing dealer, we want to hear your story, especially if you are located in the Midwest (a category absent in 2016). Email ttaffera@glass.com.

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On the Fast Track

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01

Replacement-Only Equals Strong Growth

Weather Tite Windows

Tampa, Fla.

Brands sold: PGT

Percent of business in windows and/or doors: 100 percent

From 2011 to 2013, Tampa's Weather Tite Windows' sales grew 50 percent per year. The family-owned-and-operated dealership has had "tremendous growth over the last five years," says chief operating officer and co-owner Jarrett Kass. In fact, the company says it is PGT's largest dealer in West Central Florida.

Kass says it is important to remember that the company performs replacement work only.

"We sell, install, service and warranty all of our jobs," he says. "We are not simply a dealer that flips product to contractors or sells to production builders. We have continued to increase our sales year-over-year by selling direct to homeowners, which is a tremendous feat."

As sales have increased, the company has boosted its employee base, including sales staff and installers.

And further growth seems to be certain as Weather Tite continues to gain market share and enter new regions.



It's the Process

Exovations of Atlanta

Cumming, Ga.

Brands Sold: Sells a private-label mahogany wood door, as well as fiberglass doors from Neuma, Plastpro and Therma-Tru; also Enviroguard PVC windows and Great Lakes vinyl windows.

Percent of business in windows and/or doors: 35 percent

"It's our process that makes us different," reads a statement on the Exovations website. But the company says the fact that it even has a process "that is documented and followed by all of our trained team members is somewhat unique."

After all, it's what the company was founded on. When Boone Unger and Bitsy Lee started Exovations in 1996, they say the industry had a poor reputation, "filled with empty promises, late or broken appointments, and never-ending projects with final price tags that never seemed to resemble the original proposal price."

"They saw a huge opportunity ... to be a different kind of contractor who actually delivered what homeowners thought that they could never get in construction: an on-time, on-budget, stress-free remodeling project," says Heather Heydet, marketing director.



03

Confidence for Further Growth

California Energy Consultant Service

Rancho Cordova, Calif.

Brands sold: Simonton (premier dealer level); Milgard (certified dealer); Ply Gem; and Marvin (occasionally)

Percent of business in windows and/or doors: 69 percent



Roadblocks are no problem at California Energy Consultant Service (CECS). The company believes it has firmly removed a major roadblock to future growth. Maybe that's why company president Phil Isaacs predicts a boost of more than \$2 million in revenue from 2015 to 2016. He says the difference is a new software program that replaced an "archaic system of Excel spreadsheets, QuickBooks notes, online calendars, messy folders and docs that proved to be inadequate."

The company recently launched the Improveit360 CRM software, which "tracks everything we need and anything imaginable."

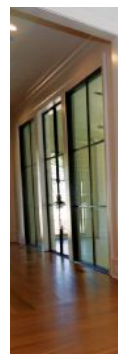
"We live off the reports and views, and reporting that used to take minutes or hours to sort through is now automated," Issacs says. "In short, we now have the confidence to take on some added growth and not compromise our service."

But the service wasn't bad. In fact, the company has always excelled in marketing and sales.

"No. 1, our business philosophy is to take great care of customers and have faith that they will tell their friends," he says. "No. 2, we have created an environment of trust and have been successful at attracting and retaining top-level salespeople to our team."

The company's window suppliers likely love them as well. CECS won Milgard's Dealer of the Month in January (out of more than 800 dealers).

The company's sales of Simonton windows are also up more than 75 percent from last year.



Opening Up

Windows, Doors and More

Seattle, Wash.

Brands sold: 24 brands sold. Top lines include Loewen, Milgard, Andersen, La Cantina, Albertini, La Loma, TruStile, ThermaTru, Centor, Weiland by Andersen, Rogue Valley and more.

Percent of business in windows and/or doors: 100 percent

Windows, Doors and More is on track for significant growth in 2016, and president Rick Locke says a variety of factors have helped his company thrive. First, he describes the company's Seattle location as a dynamic one and that it is "well positioned to take advantage of current opportunities." Second, the company has diversified into key categories including bi-folding, lift-slide and multi-slide doors, and has seen increases in its wood and fiberglass entry door systems.

The dealership serves mainly home builders and remodeling contractors, and its door and window brands cater to high-end homes. It also provides installation services through third parties for window replacement and has a retail showroom in the Seattle Design District.

Yet Locke is slightly conservative when he talks about what his final 2016 sales will look like. "For 2016 sales, we are budgeting [conservatively] \$8.8 million [a ten-percent increase year over year] and are currently tracking at a 14-percent increase year over year. Our strength is usually in the second half of the year, and I expect we will exceed \$9 million in sales."

Locke has a great deal to be proud of and that includes the company's showroom, which displays the latest in automation, such as built-in security sensors and dynamic glass products. "We take pride in having a company with high values that operates ethically and under a mission statement that serves our employees, our customers and our suppliers," he says.



05

Two Years, Two Million in Sales

Liteworks Window and Door

Marietta, Ga.

Brands Sold: Sierra Pacific Windows and Doors, Windsor Windows and Doors and Ply Gem Windows and Doors



Percent of business in windows and/or doors: 100 percent

2013 wasn't necessarily the best year to launch a window company. But when the recession hit, industry veteran Scott Barr knew he wasn't bringing in a lot of money to his current employer, so he decided to start his own window business. He did this, despite the fact that everyone told him it was a terrible time to do it.

"Actually it's the best time, because there is nowhere to go but up," he says.

In its first nine months, the company grew revenues from nothing to \$850,000. Sales in 2014 were \$1.22 million and in 2015 were \$2.35 million. The company serves the high-

end residential market and the multi-family market.

When asked about the main drivers behind the growth, Barr says it's simply him out there soliciting the business.

"Even though I started with nothing, I have been around a long time and know the players," he says. "I am convinced people buy from people, not from companies."

The economic turnaround didn't hurt. "I have already done this year in five months as much as I ever did with my old employer in a year's time."

Barr subcontracts his installations, and while he started with one employee—"me, myself and I"—he's still his only employee today, though he would like to add someone in sales. **I**

Tara Taffera is the editorial director/publisher of DWM magazine.

Doing It Light

Vinyl Surges in Light Commercial Sector

by Trey Barrineau

Sheldon Kahan has seen the future of light commercial—and it is vinyl.

“Vinyl window manufacturers have adapted to the light commercial market,” says Kahan, the commercial project manager with Deceuninck North America. “Vinyl is really taking hold in light commercial and it’s becoming the product of choice. It’s really something. It’s continuing to be a huge factor in Deceuninck’s growth.”

Kahan says vinyl is surging because of its excellent thermal performance, versatility, ease of maintenance and affordability.

“It’s taking larger and larger chunks of the market from aluminum,” he says. “It comes back to the fact that

vinyl just performs better in most climates, and we can do colors and we can build much larger windows than before.”

Steve Dillon, the marketing director for Veka, sees a similar situation.

“In most markets, aluminum still has a foothold,” he says. “However, some markets have been quicker to adopt vinyl as the preferred material because of the obvious thermal advantages that vinyl, in combination with insulating glass, can provide. This trend will continue across all markets as thermal requirements become more stringent.”

Kahan says a new-construction project in historic Italian Village near Columbus, Ohio, is an example of vinyl’s versatility.

The historic village requires windows used in new construction to match the look and design of those in existing buildings. Traditionally, vinyl has not been an option. But Deceuninck North America worked with Lindsay Windows of Chicago, a member of its recently launched Commercial Alliance, to offer a vinyl window that matched the required frame design and black color while providing a high level of thermal performance. During a recent meeting of architects and historic planning officials, the windows were approved for use as part of a large, mixed-use construction project that will feature more than 1,200 living units.

A Strong Market

According to the recent *2015/2016 Study of the U.S. Market for Windows, Doors and Skylights* from the American Architectural Manufacturers Association, the U.S. market for light commercial windows increased nine percent from 2013 to 2015. AAMA defines “light commer-

Vinyl on the Rise

Several years ago, AAMA published a white paper about the use of vinyl windows in a historic former military base near Chicago that illustrates the material’s clout.

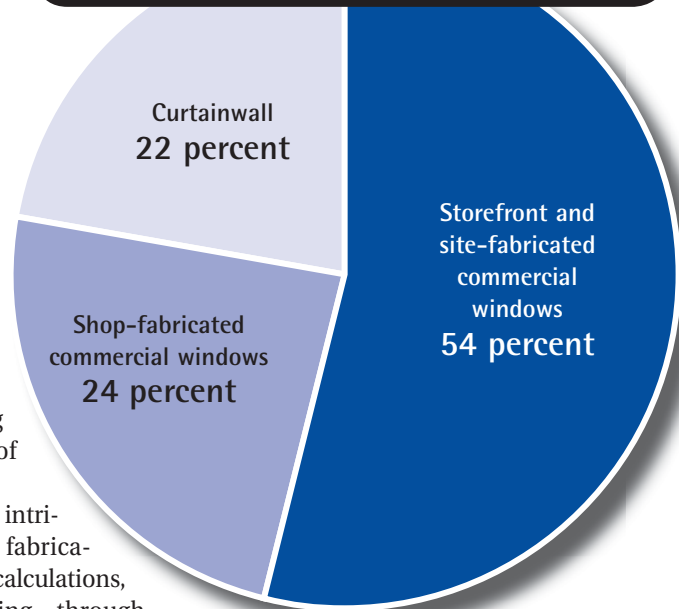
Fort Sheridan north of Chicago was decommissioned in 1993. Soon after, developers looked to exploit its beautiful Romanesque Revival architecture by turning it in a new housing development that would mix renovated historic structures and new construction. Barracks and single dwelling houses were converted into multi-million-dollar mansions and townhouses that cost in the upper six figures.

The developers went with vinyl for the project because of its thermal efficiency, ease of maintenance and affordability. Veka supplied the two-toned extruded profiles to Republic Windows, which handled the fabrication.

“People are looking for maintenance-free homes all the time, even if the homes are over a million dollars,” says architect Brad Lewis, director of design for Chicago-based Balsamo Olson & Lewis. “We are doing a lot of houses with vinyl windows. People can’t tell the difference anymore. And now that we can do different shapes with vinyl windows, it gives us a chance to use the material more.”

Where's the Vinyl?

Non-Residential Vinyl Usage



Source: AAMA 2015/2016 Study of the U.S. Market for Windows, Doors and Skylights

cial" as residential-type units used in low-rise non-residential applications, noting that they usually pass through the typical residential window supply chain channels (*see chart at right*).

Additionally, a July 2015 forecast from Principia Consulting predicts that the \$8.3 billion market for residential and light commercial patio doors and windows will grow seven percent each year through 2017. At the same time, the overall commercial building industry should see 9.9 percent growth in 2016 and 7.5 percent growth in 2017, according to the American Institute of Architects' Consensus Construction Forecast.

According to Kahan, multi-family housing is leading the charge.

"We're seeing lots of activity in student housing and things such as mixed use with stores on the bottom and apartments on top," he says.

Corrie Neukirchner of Rehau says that's because the commercial segment has gotten healthier faster than other areas of the construction industry.

"We've seen a stronger recovery of the commercial segment after the financial crisis compared to slower stabilization of residential new-construction volume based on demographics and lifestyle choices," she says. "Specifically multi-family and mixed-use developments have seen a big jump."

One installer of light commercial fenestration says he's seeing an uptick all across the board.

"The number of projects is up for the first time significantly since the downturn," says Craig Patchin of Window Design Center in Madison, Wis. "Lending has loosened, and people are starting to create companies and expand. It's healthy and steady. A lot of the big production builders were all active in multi-family during the downturn. It was a way to keep their

businesses going."

Neukirchner says that's a big change from the past.

"It was very uncommon before the economic crisis," she says, adding that it was a big adjustment for a lot of those companies.

"It's a higher scale of intricacy for commercial fabricators with engineering calculations, mock-up testing, going through approvals, working with window consultants, shop drawings, and window management on the job site," she says.

Since the housing crash, multi-family housing has powered the recovery in U.S. residential construction. In 2015, multi-family production reached 395,000 units, according to the National Association of Home Builders' 2017 Spring Construction Forecast. A normal year of multi-family production typically sees 331,000 units produced, NAHB says.

However, multi-family starts are expected to decline 4 percent to 379,000 units this year, but rise 6 percent to 402,000 units in 2017.

Dillon says light-commercial growth for Veka varies widely by region.

"We see growth in the Northeast and Midwest as traditional residential fabricators are realizing the opportunities in the light commercial market," he says. "Not so much in the South and West, where aluminum is still strong. It really speaks to the thermal requirements in those regions. Where we see the growth, fabricators are out there pitching the benefits of vinyl over other materials. It's really about education. Growth will continue to increase nationwide at a modest pace, while certain markets will rapidly adopt vinyl's versatility."

Style Watch

Kahan says color is the big game-changer in the light commercial arena.

"It used to be manufacturers only had white or tan or clay vinyl windows," he says. "Now they're selling painted or laminated products. Colors like bronze and black are very popular."

Veka's Dillon agrees.

"Color is always a consideration for any commercial installation, and vinyl offers the most versatility for finishes," he says. "For us, the majority of the growth is in interior and exterior laminates. The ability to have wood grain interiors along with architectural exterior colors is appealing to most builders and architects."

Finally, Dillon says the adaptability of many residential window designs to light commercial is a big reason there are more diverse styles in this niche than ever before.

"Many residential window designs are capable and are making the shift over to light commercial," he says. "The changes in energy codes have driven designs to not only be more thermally efficient but to be more structurally sound as well." ■

Photos courtesy of
Windows, Doors and More,
and Tom Adams Windows
and Carpets.



Showrooms: Leave the Lights On For a While

In the Digital Age, They're Still a
Vital Piece of the Sales Puzzle

BY TREY BARRINEAU

A recent informal survey on DWM's website indicates that showrooms aren't a big deal anymore in the door and window industry. About 88 percent of respondents say they're no longer a vital part of their business.

But that doesn't mean the bricks-and-mortar display area is something else that's been disrupted out of existence by the Internet. Retail experts contacted by DWM say a company's website and showroom must work together as part of a well-executed modern marketing and sales plan.

"When I buy windows, the first place I go is online," says Jeff Grant of Grant Retail Design in La Jolla, Calif. "But I'm not going to spend \$20,000 on windows and doors and not feel them. At the same time, I might go touch it and feel it at the showroom, and then go buy it online."

Research supports Grant's point.

According to a June 2014 report from Merchant Warehouse, "web-rooming," where shoppers research products online and then visit an actual store to make a purchase, is a lot more



Windows Doors and More is one of DWM's fastest-growing dealers (see page 30) and obviously believes in the power of a great showroom.

prevalent than "showrooming," where customers browse in stores before buying online.

While three-quarters of men (75 percent) web-room, just over half (53 percent) showroom. Similarly, women are more likely to web-room (63 percent) than showroom (40 percent).

Furthermore, while nine out of ten

showroomers have also web-roomed, just six out of ten web-roomers have showroomed.

"Usually customers search online first and then come to showroom," says Michal Bohm of B.M. Windows in San Diego." I would say that about 30

continued on page 38

Mobile, Web-Based Tools

Showrooms will probably always be part of the door and window industry, but digital tools are becoming hugely important as well.

Here are a few that might give hands-on displays a run for their money.

Renoworks has created dozens of visualizer apps for door and window companies. They help homeowners and dealers configure doors and windows based on a photo of a residence.

Companies using Renoworks products include Renewal by Andersen, Milgard, Raynor, Norandex, ODL, ProVia, Window World, PlastPro, Infinity by Marvin, Cascade Windows, All Weather Windows and Polaris.

The **DoorWays app** from **Therma-Tru** brings mobile shopping and visualization into one tool that speeds up the selection and buying process for trade

professionals and homeowners.

The marketing tool features the Therma-Tru portfolio of fiberglass doors in the most popular sizes, as well as decorative, privacy and specialty glass.

Guardian Industries' **Guardian Window InSight** is a mobile app designed to help contractors and remodelers educate homeowners on the best options for new or replacement windows.

The mobile application is organized into three main areas: Buyer's Guide, Toolbox and Technical Library. The Buyer's Guide offers clear explanations of windows and glass performance, through animations, relating performance metrics to real-world installations.

The Technical Library provides a



comprehensive glossary of terms to educate users about everything from how glass is made to how glass coatings respond to temperature.

Showrooms

continued from page 37



Photos: Tom Adams Windows and Carpets

Research shows that “webrooming” is more popular than showrooming. With the former, customers research products online but then visit a store to touch and feel the windows and doors.

percent of our customers will at some point come to our showroom to try the product.”

Beyond “Just Looking”

Another expert in retail display thinks door and window showrooms aren’t going away anytime soon, mainly because the products are pricey and require a significant investment of time and money from the homeowners.

“I do not see the need for a showroom to diminish going forward,” says Jerry Birnbach of RDD Associates in Granite Springs, N.Y. “These products are expensive and have significant maintenance costs depending on the type of construction methods that are implemented. When it comes to windows and doors, there are three distinct issues that most customers are concerned about. The factors are size, style and performance. As a result, a showroom is critical and will always be of value, because a customer who is about to

make a sizable investment in doors and windows will want to touch and feel the samples.”

Grant agrees, and says the showroom is the place where you’re as likely to be selling the attributes of your company as you are a window.

Brian Brock of Hullco Exteriors in Chattanooga, Tenn., a top door and window dealer in eastern Tennessee, agrees that it’s important to have both a strong website and a solid showroom.

“The value in the website is that it’s open 24/7,” he said. “People can gather detailed production information and look at photos for inspiration, all from the comfort of their home on their own terms. Meanwhile, the showroom gives customers the opportunity to see and feel the products, and yes, there is value in seeing and operating full-size products.”

Cori Brown of Franklin Window and Door in Carmel, Ind., agrees

“I think that with a smaller window and door supplier, like ourselves, website outreach is so important in regards to drawing in potential clients and informing them before they enter the showroom,” she says. “But, even with the importance of our online presence, I don’t foresee our showroom being supplanted any time soon. With products that are so critical to the aesthetics and energy efficiency of a home, people really feel more at ease stopping by the showroom and seeing those products in person. It really is such an important decision for our clients, and I think it’s vital to offer them in-person assistance.”

Web-Showroom Interaction

Both Grant and Birnbaum think websites and showrooms can be part of a complete sales package—and that’s especially important for smaller companies.

“If you’re going to have a showroom, you have to make it different from a website,” Grant says. “For a smaller, independent window and door place to compete on the web is next to impossible. What they have to do is this—have a kick-ass, search-optimized website.”

Birnbaum agrees—to a point.

“I am a true believer that a strong website helps any business, and depending on the business, the overall look of the website is valuable,” he says. “If you are selling branded items such as Andersen, much of your story line is already sold with a proven brand customers have learned to depend on. If you are a private label product line, the creditably is critical to tell. We know that the big box Home Depot or Lowe’s are often the go-to site for homeowners. However, we know that service and product knowledge are not their strong subjects. You need to position your website to be credible, which means a range of styles and prices, availability of stock, guarantees, warranties, savings, years in business, expertise and service available to the customer.”

But that strong website is just the hook to get the potential shopper into the showroom.

“Once you have them on the line, it is all about reeling

them in," Birnbaum says. "That is accomplished with an instant chat option with a live person, or a call number with a live person always able to answer questions and persuade the customer to come into the showroom. With the correct staff in place within the showroom, your likelihood of making the sale is much greater than if left alone on the internet to make the final decision to purchase. The main advantage of the website is to stop the customer from wanting to look anywhere else, whether online or in a bricks-and-mortar store."

That echoes the experiences of Sean Miller of Martel Windows and Doors in Texas.

"I used to look at showrooms as a necessary evil because the brick and mortar adds credibility to a business," he says. "I felt that with hand samples, corner section, brochures and digital tools, sales could be handled in clients' homes or offices and add the convenience of coming to them. However, when I started to create showrooms, I began to see how much of a closing tool the showroom could become."

Finally, Grant says showrooms and websites are just part of a company's total marketing plan.

"I would develop that strong local presence and I would work real hard on the social media end as well," he says. "You have to do everything correctly. The showroom's got to be right, the salespeople have got to be right, the prices have to be right, the internet has to be right." ■

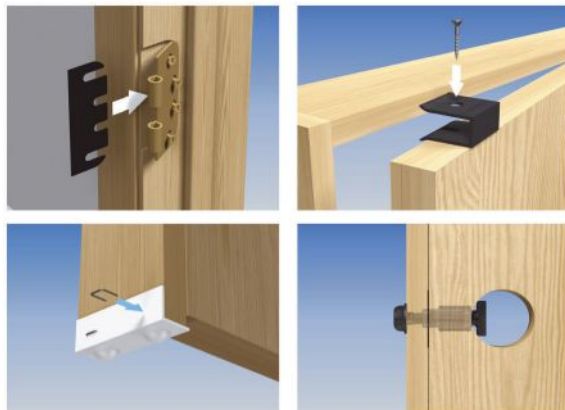


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EVENT NEWS

At AIA, Fenestration Exhibitors Focus in On Modern Trends

FOCUS ON DEALERS



Pella showcased Impervia, its pultruded fiberglass option that can be used for residential and light commercial applications.



Large doors, such as the LaCantina multi-slide (pictured left) featured at Jeld-Wen's booth, were popular at the AIA show this year.

Across the show floor at the recent American Institute of Architects Convention in Philadelphia, the word “contemporary” was repeated over and over, from one booth to the next. So watch for these “contemporary” styles to show up on your local showroom floor.

This focus on modern-style trends was reflected in the widespread display of dark-colored products, particularly in the residential door and window arena.

Solar Innovations, in fact, did a “blackout” for its booth, in which every single product displayed was black. Pella also emphasized this color trend.

“Deeper and darker seem to be the buzzwords,” said Ply Gem Windows vice president of marketing Mark S. Montgomery. Ply Gem set up its booth to simulate the environment of a contemporary home, office and café—hence its theme “Live, Work, Play.”

Montgomery said the three things

he typically discusses with architects at AIA are design, functionality and performance. The company displayed its vinyl window products and had a section demonstrating its new software models for Building Information Modeling.

Elsewhere, large doors were ever-present at the show, with many exhibitors showing off fenestration products that bring the outside into the home.

Jeld-Wen Window and Doors architectural consultant Arne Godtfredsen said multi-slide doors continue to grow in popularity and that the LaCantina multi-slide system his company was showing garnered a lot of attention from architects. He added that it is introducing a vinyl multi-slide in June.

Panda had its new PandaSelect multi-slide system on display. The system was designed for “budget-driven” projects and provides four different frame material choices, with standard panel sizes up to ten feet tall and five feet wide.

Andersen also showcased large

doors, some that span as high as 10 and 11 feet.

Many fenestration companies at the show featured products for historic retrofit applications that replicated the aesthetics of older windows while meeting stringent modern-day standards.

Marvin showcased its Next Generation Ultimate Double Hung, which architectural consultant Steve Ihlenburg said is “a super high-tech window with a wood look.” The window has minimal sightlines and maintains a wood aesthetic where a metal track would normally be visible.

Kolbe, meanwhile, featured a window designed for historic retrofit applications—its new double-hung lock.

“Every detail of the window is important,” said Lance Premeau, Kolbe’s product and market manager. He said this new sash lock option is an example of how the company’s windows can be tailored to fit the aesthetics of the building.

DOORS

DeWall Does It All

Debar launched its new DeWall Aluminum Bi-Folding Door System at Germany's Fensterbau trade show in March. The new system has adjustable jams and has achieved certification to PAS 24 for enhanced security performance requirements.

The product is an inline system offering above-ground bottom running with multiple threshold options.

The hardware components and system are designed to give maximum

carry capacity while still offering slim sightlines, oversized doors and minimum profiles. Dual color and special finishes are available and the system features a slim sash and an adjustable jamb option.

► bifold-hardware.com

PandaSelect Is an Easy Pick

Panda Windows and Doors Inc., has released a new multi-slide door product line called PandaSelect.

The company says it was developed in response to builders' requests for quality contemporary in-line sliding doors at high-volume-based prices. The line features four different frame material choices, so it can help design professionals meet the design goals, performance criteria and budgetary constraints of their projects.

Featuring frame heights up to ten feet tall and widths up to five feet, the PandaSelect multi-slide door system allows for stackable or pocketed configurations with a maximum of five panels per side. It comes with an ultra-thin 3 3/16-inch stile and rail profile.

The new collection is offered in aluminum and aluminum-wood clad frames. Both frame options can be thermally-broken by a 24 mm poly-

amide insulation bar to reduce thermal conduction in locations with extreme weather conditions. Six standard AAMA-2604 compliant powder-coat finishes are readily available. In-stock wood species include pine, poplar and Douglas fir.

► www.panda-windows.com

ONLINE TOOLS

Pella Introduces Online Product Consultations

Pella Corp. now offers consumers a new option to shop for doors and windows: online consultations.

"Online consultations give homeowners the convenience of scheduling an online video chat around their schedule and on their terms," says Annette Bravard, Pella's vice president of sales and marketing. "Similar to Pella's in-home consultations, where window and door experts physically come into the home to discuss options, Pella's new online consultations take that conversation and put it over video chat. Now, within select markets to start, homeowners can decide what is best for them; an in-home or an online consultation."

Homeowners seeking an online consultation can select their preferred date and time in advance at pella.com and can currently have a consultation within 12 to 24 hours. On the day of their appointment, they'll simply connect via computer, tablet or smartphone to a door and window professional based in Pella, Iowa, the company headquarters.

A typical consultation lasts about 60 minutes. Homeowners are encouraged to do some pre-consultation measuring of the doors and windows they would like to replace and have an estimated budget for their project.

Online consultations are currently available within most neighborhoods of Chicago, Dallas, Los Angeles, Portland, San Diego, Seattle and Toronto, with plans to roll out to additional locations throughout 2016 and 2017.

► www.pella.com



STORM DOORS

ProVia Adds Styles

ProVia has added two new storm door styles, Modern and Colonial, as part of the company's 2016 lineup. These panel configurations are designed to complement the company's fiberglass and steel entry door offerings.

The performance of these storm doors has been enhanced as well. A new material formulation is used to provide a strong, dent-resistant kickpanel.

With 54 models of aluminum storm doors and numerous additional glass options among five different brands, ProVia offers a high level of customization.

► www.provia.com/storm-door

INVESTMENTS

Equity Firm Invests in Alexandria Moulding

Industrial Opportunity Partners (IOP), an operations-focused private equity firm based in Evanston, Ill., has partnered with the management team of Alexandria Moulding Inc. in an investment to support a recapitalization of the business.

Alexandria is a manufacturer and distributor of wood mouldings and related millwork products for the Canadian and Northern U.S. residential housing markets. The company sells directly to retailers as well as wholesale building product distributors and industrial customers. The company is headquartered in Alexandria, Ontario, Canada and has a manufacturing and distribution facility in Alexandria, along with a hardwood manufacturing operation in Bradford, Ontario that serves Eastern Canada. The company also has a manufacturing and distribution facility in Moxee, Wash., that serves Western Canada and the Northwest U.S., as well as two other distribution

facilities in Wilkes Barre, Pa., and La Porte, Ind., that serve the Northeast and Midwest regions of the U.S.

IOP is partnering in its investment with Andre Cholette, president and CEO, and the rest of the Alexandria management team, all of whom will have ownership interests and remain in their current management roles to continue to grow the business. In addition, Dave Mackin, an IOP operating principal, will assume the position of chairman. Mackin is a member of IOP's board of operating principals, which is comprised of seasoned executives who provide leadership to the businesses in which IOP invests.

"We are excited to partner with the Alexandria team," says Ken Tallering, senior managing director of IOP. "We believe that Alexandria is a growing business with an excellent reputation for quality and customer service and strong relationships with both customers and suppliers."

Cholette says Alexandria Moulding is excited about the new partnership.

"The management team and I are excited to partner with IOP," he says. "IOP brings both capital and experience, which I believe will allow the company to continue to grow and capitalize on opportunities."

EXPANSIONS

Woodgrain Millwork to Expand Virginia Facility

Woodgrain Millwork, a family-owned and operated company headquartered in Idaho, will expand its door and window component manufacturing facility in Smyth County, Virginia, and add 17 new jobs.

Woodgrain Millwork will invest \$1.86 million in site improvements and equipment needed to build an 18,000-square-foot addition to its mill in Marion, Va. The company's primary products will be exterior door frames, brick mouldings and doorjamb.

EVENTS

Plan to Attend MMPA's Summer Meeting

The Moulding and Millwork Producers Association will host its summer meeting July 18-21 at the Marriott Fallsview Hotel and Spa in Niagara Falls, Ontario, Canada. The Marriott Fallsview Hotel is perfectly situated, offering breathtaking views of Niagara Falls. After business is completed each day, attendees may opt to visit the local wineries, golf or head out on a Hornblower Cruise to experience Niagara Falls up close.

► www.wmmpa.com

National Millwork's Texas Operation Up and Running

National Millwork Inc., a commercial and residential, door, hardware, trim and specialties manufacturer/distributor/contractor, has inaugurated a new production line for its recent acquisition, Elite Door and Trim of Denton, Texas.

"Now that the additional door line is operational, this will enable us to expeditiously service Texas customers, while additionally reducing our distribution costs," said CEO Otto Nonnenmann. "This local Texas manufacturing capability gives us the confidence to more aggressively pursue contracts outside of Texas, in the southwestern region of the U.S."



ACQUISITIONS

ALCO Doors Sold to U.S. LBM Holdings

U.S. LBM Holdings has acquired Baltimore-based American Lumber Corporation from fourth-generation owners Howard, Douglas and Jack Farbman. Howard Farbman will remain with the company as president.

Founded in 1904, ALCO Doors is one of the largest manufacturers of interior and exterior doors for commercial and residential use. ■



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HARDWARE A 2-Bar Hinge Binge



Northern Architectural Products Inc. (NAP), a division of The Accurate Group, has created a 2-bar hinge that it says is the first on the market capable of carrying mass weights, including the heavier loads associated with triple-glazed windows. The new residential Pinnacle 2-bar concealed hinge is available in standard $\frac{7}{16}$ -inch stack height. The new 436 series heavy duty hinge is available in $\frac{5}{8}$ -inch stack height with a 200-pound certification. Withstanding load capacities of 150 pounds for over 8,000 test cycles exceeds AAMA 901-10. The hinge also can double as both a casement

and project-out (awning) hinge. This means one hinge can serve two applications.

The hinge remains fully adjustable up to $\frac{9}{32}$ inch via its elongated holes. The pinnacle hinge is available in stainless steel or Corro-Guard steel, which the company says has undergone 300 hours of salt spray testing performed by a SCC Certified lab.

► www.northern-arch.com

Baldur Slides in Safely

Architectural hardware designer and manufacturer Krownlab introduces Baldur, a hubless sliding-door hardware system for commercial and large residential interiors. Baldur can be attached to door panels in three different ways—top mount, face mount and glass mount—and can be used in a variety of door configurations. Its patented hubless design employs custom massive unsealed bearings, four inches in diameter and clamped at only one point in the action, which provide Baldur's movement.

It's easy to adjust the system onsite,



according to the company, and with three mounting systems, there is flexibility to work with panels of nearly any size and material up to 400 pounds.

Fabricated from 300- and 400-series stainless steel, in three different finishes—brushed, black, and polished—Krownlab says the Baldur system won't patina or develop rust, even in damp or humid environments.

► www.krownlab.com

Hello, Anthony

Anthony Innovations' SS2400 series sliding tandem wheel roller offers a slim and compact design for an almost frameless opening for sliding doors.

It features a precision bearing design and anti-corrosion assembly that the company says produces low noise and is smooth in operation.

► www.anthonyninnovations.com

SOFTWARE One-Org Does it All

Improveit 360 has launched One-Org for franchises and manufacturers. The new solution acts as a single platform to bring an entire network together into one system, with web-based accessibility and enhanced by custom mobile apps. Now a franchisor and franchisees, or a manufacturer and its distributor/dealer network, can have all their communication, data and business functionality in a customizable operations platform.

With the Salesforce.com cloud platform as improveit 360's technology backbone, the company says all

FLASHING ForceField Blocks Air, Water

The ForceField air and water barrier system from Georgia-Pacific consists of structural engineered wood sheathing panels laminated with a proprietary air and water barrier. Once the panels are installed on a structure and the panel seams are taped with ForceField seam tape, it creates a code-compliant, integrated system for residential or light commercial construction that eliminates the need for house wrap. According to the company, ForceField can be installed faster than traditional house wrap installation, helping save time and helping lower total installed cost. Doors, windows and other penetrations don't require complicated cutting and folding common with house wrap installation.

Once installed, ForceField provides protection from the elements throughout the construction process. The integrated sheathing and proprietary overlay create a barrier that keeps water out, but is also vapor permeable, allowing water vapor to escape and promote drying. ForceField sheathing combined with seam tape helps prevent air infiltration, which helps create a more energy-efficient structure.

► www.gpforcefield.com



vital data will live in secure servers, accessible from anywhere, anytime. One-Org provides all the functionality of the improveit 360 enterprise solution including: CRM & lead management; appointment scheduling; in-home sales tools and quoting; marketing and call center features; project management; and business intelligence and reporting. With all locations under one umbrella in a unified architecture, manufacturers and franchisors will see benefits that include:

- Automated lead distribution and tracking;
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- Accurate, up-to-date product catalogs and price books;
- Systemization of standard corporate processes;
- Improved communication and franchisee/dealer loyalty;
- Control over product marketing, and;
- Royalty reporting.

"Other industries have greatly benefited from similar platforms, but this is the first of its kind geared towards the home improvement industry," said Justin Showers, marketing director. "There's literally nothing like it out there, and we're incredibly excited to see how technology this powerful transforms our industry for the better."

► www.improveit360.com

DECORATIVE GLASS RSL Digs Into Plantation

RSL has released its new wrought iron decorative glass series, Plantation.

According to the company, the unique floral design evokes strength and sophistication, with the hammered glass background providing additional privacy.

Plantation is available in six sizes and increases RSL's wrought iron decorative selection to four series.

► www.rslinc.com

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APPOINTMENTS

PGT Appoints Bob Keller as VP

Bob Keller is the new vice president and general manager of PGT Custom Doors & Windows. Keller reports directly to Jeff Jackson, president and CEO, and is responsible for all aspects of the company's flagship facility for manufacturing impact-rated doors and windows in North Venice, Fla.

Keller has more than two decades of experience in the building industry. Prior to joining PGT, he served as the vice president of global operations for Moen. He also held several roles with Therma-Tru Doors, including senior vice president of operations and engineering, plant manager and senior product marketing manager. He has also served as a board member of the Window and Manufacturer's Association (WDMA).

MI Windows and Doors Adds to Leadership Team

MI Windows and Doors added two industry veterans to its leadership team. **Ray Garries** is the new vice president of engineering and innovation, and **Richard Allen** is vice president of replacement products. Together, they bring to MI more than 60 years of industry-related experience.

Garries previously held positions with Alcoa Building Products and Jeld-Wen, during which time he helped develop and improve many of the modern standards, codes and educational materials within the fenestration industry. Allen, whose primary responsibility is growing and managing MI's replacement window sales, has experience with a wide range of industry-leading manufacturers. He most recently worked for Andersen, where he held various executive sales leadership positions.

Formtech Appoints Reynallt President and COO



Amy Reynallt

Formtech Enterprises Inc., a manufacturer of custom thermoplastic extruded products headquartered in Northeastern Ohio, has named **Amy Reynallt** its new president and chief operating officer.

Reynallt graduated from The Ohio State University with a BA in Political Science, and received an MBA from the University of Akron in Strategic Marketing. Amy joined Formtech in 2006, and has held positions of increasing responsibility, including general manager beginning in January 2014. Other positions included project manager

and product manager.

"Formtech has a rich history in custom profile extrusion, and we are planning for the future with this appointment," said Dave Turk, Formtech's CEO, in a statement. "Amy has been an integral part of Formtech, and has contributed at a very high level since joining the company. We are very pleased to have Amy as part of the leadership of the organization as we move forward."

Since 1970, Formtech Enterprises, Inc. has manufactured custom profile extrusions and the Truline vinyl sheet piling product. The company has extrusion facilities in Fairview, Pa., and Bogart, Ga.

Kenneth Gray Named Debar's Operations Director



Kenneth Gray

U.K.-based Debar has added **Kenneth Gray** to its operations team. Gray brings more than 20 years of industry experience to Debar and a strong background in fabrication aerospace engineering.

As the operations director, Gray will be responsible for all operations and manufacturing, health and safety and getting the ISO 9001 accreditation in International Standards for Debar.

OBITUARY

Hansa Madha, CFO of Tiltco, Dies

Hansa Madha, the chief financial officer of Tiltco, died on February 24, 2016.

"It's with heavy hearts that we announce Hansa Madha passed away peacefully at home with her family by her side," according to a statement from the company. "Hansa was the company's chief financial officer and the backbone from day



one. Without her support and sacrifice, we would not be here. **Madha**

She touched a lot of hearts in her personal and business life.

She personally knew all our suppliers and clients by name, in Canada, U.S. and Europe. She had a huge heart and was strong and passionate about keeping Tiltco on its feet. The contributions she made to this company will never be forgotten as we were truly blessed for having her as a part of our lives. She will certainly be missed."

Paragon Windows Names New Executive Vice President

Paragon Windows & Doors, formerly THV (True Home Value), has appointed **Charles "Larry" Smith** as its new executive vice president. In his new position, Smith will be responsible for expanding sales and customer relationships within Paragon's existing network of dealers and distributors, as well as adding new dealers to that network.

Smith has more than 20 years of experience in the door and window industry. He spent the previous nine

years as CEO of THV and grew the company to \$20 million in sales. Prior to that, he served as CEO of Thermal View from 2001 through 2006.

Guillaume Cloutier Named JRC Machinery's General Manager

Quebec-based JRC Machinery Inc. has appointed **Guillaume Cloutier** as general manager. Cloutier has 11 years of experience in management in service companies, including three years as general manager and two years as president. He graduated from the University Of Montreal.

Cloutier's primary mandate since arriving in February has been to manage the company's sales force in connection with its global growth strategy. He'll also ensure growth in business volume and the company's imports and exports in order to achieve strategic objectives.

Lamprecht Joins Protomach Machinery GML Inc.



Volker Lamprecht has joined Quebec-based Protomach Machinery GML Inc. as director of business management. Lamprecht brings more than 28 years of experience in the door and window industry. He has worked for an equipment supplier and as director of operations for a large Canadian door and window company.

CGI Appoints Brian Covey as Director of Sales

CGI Windows & Doors, a subsidiary of PGT Inc., has added **Brian Covey** to its senior management team. Covey will serve as the director of sales and oversee all aspects of sales, business development and project estimating.

Covey previously served as regional sales manager for PGT Custom

KUDOS

Crystal's Chen Named to "Crain's" 40 Under 40

Crystal Window & Door Systems' chief operating officer **Steve Chen** has been named to Crain's New York Business magazine's prestigious 2016 40 Under 40 list of top New York area young executives.

"Crystal is one of the few remaining true manufacturers in New York City," said Chen. "I'm thrilled the company and I have been selected for this honor by one of the most prestigious business periodicals in the nation."

Past recent 40 Under 40 winners include Robert Reffkin, vice president of Goldman Sachs; Kenneth Chenault, executive vice president of American Express; Congresswoman Grace Meng; Marissa Shorenstein, president of AT&T in New York State; Jason Ackerman, CEO of Fresh Direct; and Nick Cannon, celebrity and president of Ncredible Entertainment.



Windows & Doors in the Southeast, Florida region from 2012-2016. Before that, he served as an area sales manager for Masco Cabinetry.

PROMOTIONS

RiteScreen Promotes Seebode to Vice President of Sales

The RiteScreen Company has named **Christopher J. Seebode** its vice president of sales. He will be responsible for the company's sales, marketing and customer service.

Seebode joined the company as sales director in March 2015 and has more than 30 years of experience in the window and patio door industry.

Lauren International Names Hovan to COO

New Philadelphia, Ohio-based Lauren International has named **Mike Hovan** as the company's new chief operating officer.

The industry veteran of more than 30 years will be responsible for promoting development within the company's subsidiaries.

Hovan joined the company in 1993 as mixing plant manager and quickly assumed greater levels of responsibility. In his nearly two decades at Lauren, Hovan served as president of Lauren Manufacturing, president of Edgetech, and vice president of Lauren International.

He also served as a board member of the company until the sale of Edgetech to Quanex in 2011. Most recently, he was the president of Mikron Industries—Quanex's largest business division.

ASSOCIATIONS

Fenestration Canada Honors Houle, Elects New Board

The Fenestration Canada annual general meeting took place in early June and Yvan Houle of Portes et Fenetres in Montreal received the C.P. Loewen Award. It's presented annually to an outstanding individual in recognition of his or her dedication and service to Canada's door and window industry. The award recognizes the nominee's efforts to promote the mission and objectives of the industry and association nationally.

Also at the meeting, Fenestration Canada unveiled its newly elected board members:

President: **Allan Doyle**, Global Window Systems;

First Vice President: **Lisa Bergeron**, JELD-WEN Canada;

Second Vice President: **Jennifer Small**, ScreenCo Manufacturing;

Treasurer: **Keven Pelley**, Kohltec Windows, and;

Past President: **Skip MacLean**, Tru Tech Doors. **I**

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www.sturtz.com
info@sturtz.com

Saws, Cut-Off

Stürtz Machinery, Inc.
1910 Summit Commerce Park
Twinsburg, OH 44087
330/405-0444
fax: 330/405-0445
www.sturtz.com
info@sturtz.com

Saws, Double-Miter

Stürtz Machinery, Inc.
1910 Summit Commerce Park
Twinsburg, OH 44087
330/405-0444
fax: 330/405-0445
www.sturtz.com
info@sturtz.com

Vinyl Fabrication Equipment

GED Integrated Solutions
9280 Dutton Drive
Twinsburg, OH 44087
330/963-5401
fax: 330/963-0584
www.gedusa.com

Vinyl Welders

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1910 Summit Commerce Park
Twinsburg, OH 44087
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fax: 330/405-0445
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Door Components

Door Screens

Quanex Building Products
1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Jamb Adjusters

Quanex Building Products
1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Patio Door Screens

Quanex Building Products
1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Screen Components

Vision Industries
500 Metuchen Road
South Plainfield, NJ 07080
800/220-4756
fax: 800/294-0743
www.visionhardware.com
sales@visionhardware.com

Thresholds

Quanex Building Products
1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Door Hardware & Related Products

AmesburyTruth
700 West Bridge St.
Owatonna, MN 55060
800/866-7884
www.amesburytruth.com

Strybuc Industries
2006 Elmwood Ave.
Suite 102C

Sharon Hills, PA 19079
800/352-0800
fax: 610/534-3202
www.strybuc.com

Handles

Roto North America
14 Inspiration Lane
Chester, CT 06412
800/243-0893
fax: 860/526-8390

Multipoint Locks

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1800 West Loop South
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Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Muntin Tapes

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1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Stiffeners

Quanex Building Products
1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Weatherstrip, Doors

Quanex Building Products
1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Insulating Glass & Related Products

Airspacers

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Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

To place your Suppliers Guide listing, please contact Tina Czar at tczar@glass.com or phone 540/602-3261.

Listings start at \$495 and run for an entire year.

**DEADLINE FOR THE AUGUST/SEPTEMBER '16 ISSUE IS
AUGUST 12, 2016.**

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quanexpr@quanex.com
www.quanex.com

Sealants

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1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Spacers

Quanex Building Products
1800 West Loop South
Suite 1500
Houston, TX 77027
quanexpr@quanex.com
www.quanex.com

Insulating Glass Machinery & Equipment

GED Integrated Solutions

9280 Dutton Drive
Twinsburg, OH 44087
330/963-5401
fax: 330/963-0584
www.gedusa.com

Software

Jobber/Distribution

DMSi Software
17002 Marcy St., Ste. 200
Omaha, NE 68118
402/330-6620 Ext. 142
fax: 402/330-6737
www.dmsi.com
dmsi@dmsi.com

Ponderosa Software
36 Thurber Blvd.
Smithfield, RI 02917
401/232-2600
fax: 401/232-7778
www.caisoft.com/ponderosa
info@caisoft.com

WoodWare Systems
8304 Macon Terrace Road
Cordova, TN 38018

901/763-3999
fax: 901/763-4064
www.woodwaresystems.com

Web Services

Digital Marketing

Kreative Webworks
26961 Camino De Estrella
Suite 300
Capistrano Beach, CA 92624
949/276-6062
www.kreativewebworks.com
info@kreativewebworks.com

Window Hardware & Related Products

Strybuc Industries
2006 Elmwood Ave.
Suite 102C
Sharon Hills, PA 19079
800/352-0800
fax: 610/534-3202
www.strybuc.com

AmesburyTruth
700 West Bridge St.
Owatonna, MN 55060

800/866-7884
www.amesburytruth.com

Operators

Roto North America
14 Inspiration Lane
Chester, CT 06412
800/243-0893
fax: 860/526-8390

Window Hardware

Vision Industries
500 Metuchen Road
South Plainfield, NJ 07080
800/220-4756
fax 800/294-0743
www.visionhardware.com
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2016

July 18-22

Moulding and Millwork Producers Association Business Meeting
Niagara Falls
Ontario, Canada

► www.wmmpa.com

July 18-19

Northeast Window and Door Association Summer Meeting
Mohegan Sun
Uncasville, Conn.

► www.nwda.net

September 25-28

AAMA National Fall Conference
Hyatt Regency Savannah
Savannah, Ga.

► www.aamanet.org

October 5-6

WDMA Executive Management Conference
Charles Hotel
Cambridge, Mass.

► www.wdma.com

October 9-13

World Millwork Alliance Convention and Trade Show
Phoenix Convention Center
Phoenix, Ariz.

► www.worldmillworkalliance.com

October 19-21

GlassBuild America
Las Vegas Convention Center
Las Vegas, Nev.

► www.glassbuildamerica.com

November 15-17

WinDoor North America
Palais des Congrès de Montréal
Montreal, Canada

► www.fenestrationcanada.ca

2017

January 10-12

International Builders' Show
Orange County Convention Center
Orlando, Fla.

► www.buildersshow.com

February 12-15

AAMA Annual Conference
JW Marriott Desert Ridge Resort
Phoenix, Ariz.

► www.aamanet.org

October 31-November 4

WMA 51st Annual Convention and Tradeshow
Cobb Galleria Convention Center
Atlanta, Ga.

► www.worldmillworkalliance.com

**To submit events for the calendar
email ttaffera@glass.com**

ADVERTISING INDEX • JUNE/JULY 2016

Page	Company	Phone	Web Address
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23	Anthony Innovations	+61-3-9460-1166	www.anthonygroup.net
3	CGI Windows and Doors	800/442-9042	www.cgiwindows.com
9	Changshu Weier Glass Products Co.	+86-512-52569644	www.weier-glass.com
C2	ENERGI Fenestration Solutions	866/852-2791	www.energyfenestration.com
21	Fenetech Inc.	330/995-2830	www.fenetech.com
C4	GM Wood Products	800/530-9211	www.gmcompanies.com
17	International Woodworking Fair	404/693-8341	www.iwfatlanta.com
C3	improveit 360	866/421-3360	www.improveit360.com
39	Kreative Webworks	949/276-6062	www.gotglass.us
39	LCS Precision Molding Inc.	507/362-4997	www.secureitfast.com
5	ORIGIN USA	941/484-4861	www.originbifolds.com
9	Punch Tools	800/668-4996	www.punchtools.com
25-28	Quanex Building Products	713/961-4600	www.quanex.com
1	Roto North America	800/243-0893	www.rotohardware.com
43	Smith Case	855/774-7974	www.smithcase.com
45	Strybuc Industries	800/352-0800	www.strybuc.com
11	Sturtz Machinery Inc.	330/405-0444	www.sturtz.com
7	Vision Hardware	800/220-4756	www.visionhardware.com
45	Windoor North America	613/424-7239	www.windoorshow.ca
15	Woodware Systems	901/763-3999	www.woodwaresystems.com

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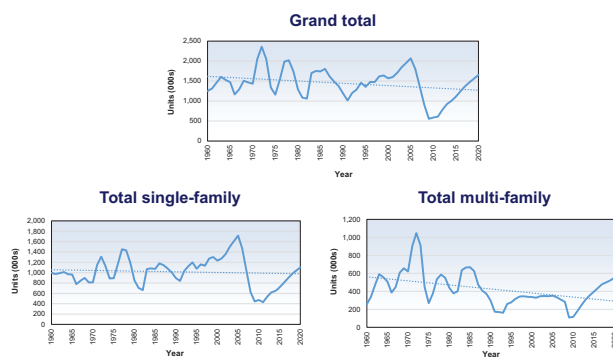
FORECASTS

Experts Reveal Spring Housing Forecasts

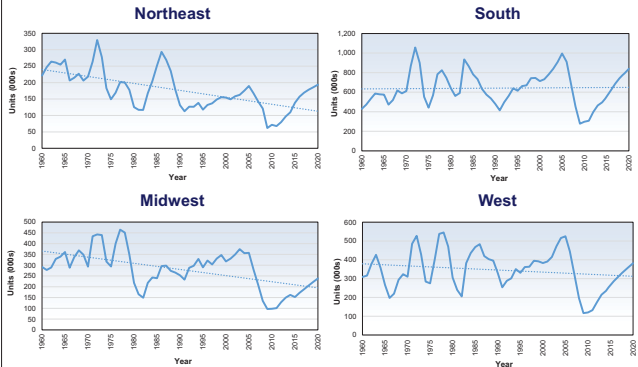
Every fall, the nation's premiere housing forecasters reveal their predictions for the following year in terms of housing starts and the like. Then in the spring, they get a chance to do it all again: look at those

predictions and make adjustments as necessary. The data below, from organizations including the American Institute of Architects and the Associated General Contractors of America, takes another look at future growth. **I**

U.S. Total Housing Starts

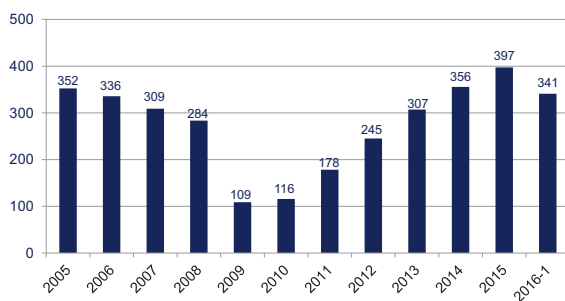


U.S. Total Housing Starts



Multifamily Housing Starts Have Seen a Strong Recovery, Outpacing Levels During the Last Boom

National housing starts (000s, SAAR)

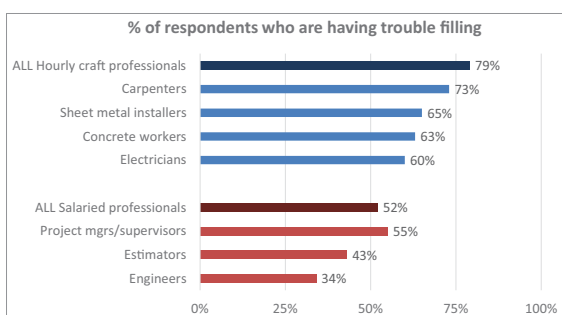


However, with Recent Strength, Multifamily Housing Starts Projected to See Slower Growth in Near Term

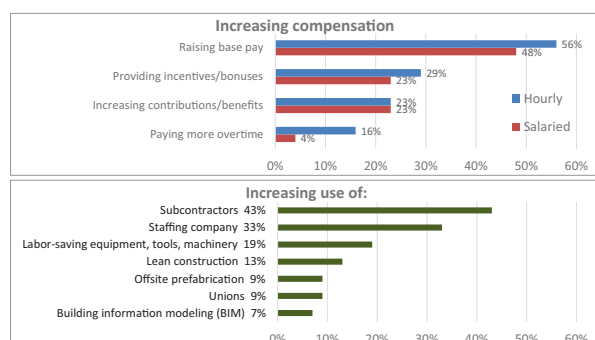
Multifamily housing starts (thousands)

	Fannie Mae	Moody's Analytics	MBA	NAHB	NAR	Zelman	Consensus (average)
2016	410	487	393	390	390	400	412 (+3.6%)
2017	428	574	405	417	420	390	439 (+6.6%)
2018		510	400			375	428 (-2.4%)
Forecast Date	Apr-16	Apr-16	Apr-16	Apr-16	Mar-16	Mar-16	

Hardest Positions to Fill



How Contractors are Coping with Worker Shortages



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