BIGGER BETTER STRONGER

USGlass Magazine's 2019 Ranking of the Top 50 Glazing Contractors



Carlos 'Andy' Gonzales/Enclos

Enclos was selected to design, fabricate and install the curtainwall enclosure system of 30 Hudson Yards (Tower A) in New York. The glass-sheathed building will also feature an angled triangle above the projecting observation deck.

y all accounts, contract glaziers are excited for the year ahead. A healthy economy, steady growth and sales, and an increasing focus on quality were all cited as reasons for optimism by this year's top companies. There is at least one matter that's keeping everyone awake at night, though: employment. That lack of skilled labor combines with trade wars and tariffs as some of the biggest concerns for contract glaziers.

While the top five companies remained the same as last year, a couple swapped places. Permasteelisa and Enclos maintained the No. 1 and No. 2 spots, while Harmon moved up to No. 3, shifting Benson down to No. 5. Elicc Americas Corp., which joined the list last year in the No. 7 spot, took a considerable dip to No. 38.

The information in this section was provided to **USG**lass by the companies included in it. Annual sales listed include volume for both commercial and residential work only. The backlog change refers to the increases or decreases in reserved projects from 2017 to 2018. Change in backlog is included only when provided by the company. Companies are ranked based on their 2018 annual sales. Those companies marked with an * are estimated based on data and field reports from Key Media & Research.

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The Miami Beach Convention Center features an undulating façade of aluminum fins and canopies in front of **Harmon**'s HI9000 hurricane impact curtainwall system. Harmon, in partnership with Sentech Architectural Systems and Mid Am Metal, designed, fabricated and installed 489 unique aluminum fins to achieve the distinctive look.

01

Permasteelisa North America

Windsor, Conn. www.permasteelisagroup.com

President/CEO: Mike Kneeland Years in Business: 19 Number of Employees: 1600 Number of Locations: 7 Commercial: 92% Residential: 8% 2018 Annual Sales: S460 million Backlog change: Increased by 15%

02

Enclos

Eagan, Minn. www.enclos.com

President/CEO: Bruce Bornhurst Years in Business: 73 Number of Employees: 650 Number of Locations: 15 Commercial: 100% 2018 Annual Sales: \$333 million

03

Harmon

Bloomington, Minn. www.harmoninc.com

President/CEO: Brad Austin Years in Business: 63 Number of Employees: 700 Number of Locations: 18 Commercial: 100% 2018 Annual Sales: \$290 million Backlog change: Increased by 1%

04

Walters & Wolf

Fremont, Calif. www.waltersandwolf.com

President/CEO: Randy Wolf Years in business: 41 Commercial: 100% 2018 annual sales: \$270 million*

05

Benson Industries

Portland, Ore. www.bensonglobal.com

President/CEO: Lance Howard Years in Business: 93 Number of Employees: 800 Number of Locations: 10 Commercial: 75% Residential: 25% 2018 Annual Sales: \$225 million Backlog change: Increased by 5%

06

W&W Glass LLC

Nanuet, N.Y. www.wwglass.com

President/CEO: Mike, Jeff, Scott and Howard Haber Years in Business: 40 Number of Employees: 180 Number of Locations: 1 Commercial: 100% 2018 Annual Sales: \$150 million Backlog change: Increased by 10%



Photo: Benson Industries

Benson Industries was the curtainwall contractor for San Francisco's 181 Fremont Street, a 60-story, 250,000 square foot mixed-use skyscraper.



RENTAL RESIDENCES ..

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USE 39

W&W Glass installed the Sotawall Hybrid-Wall[®] system for this 36-story, 372-unit residential tower located at 225 East 39th Street in New York.

07

Binswanger Glass

Memphis, Tenn. www.binswangerglass.com

President/CEO: Tim Curran Years in Business: 147 Number of Employees: 827 Number of Locations: 66 Commercial: 70% Residential: 30% 2018 Annual Sales: \$165 million

08

Giovanni Monti & Partners (GMP)

Miami, Fla. www.gmpglazing.com

President: Giovanni Monti Years in business: 35 Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$145 million*

09

Crown Corr Inc.

Gary, Ind. www.crowncorr.com

COO: Dennis Pilkinton Years in Business: 59 Commercial: 100% 2018 Annual Sales: \$130 million*

10

Kovach LLC

Chandler, Ariz. www.kovach.net

President/CEO: Troy Garrett Years in Business: 50 Number of Employees: 475 Number of Locations: 5 Commercial: 100% 2018 Annual Sales: \$105 million Backlog change: Increased by 17%



For the Erlanger Children's Hospital in Chattanooga, Tenn., **Binswanger** installed two different curtainwall systems that included five different colors. The majority of the glass is View electrochromic glazing. Binswanger ran the wiring and connections from the glass into the curtainwall and inside the building for the electricians.



Kovach was the contract glazier on the four-story, 115,000-square-foot office building at Camelback Collective in Phoenix, which was completed in 2018.



Located in Foster City, Calif., the Campus at Lincoln Centre features a glass façade system installed by Architectural Glass & Aluminum.

11

Reflection Window + Wall

Chicago, III. www.reflectionwindow.com

President/CEO: Rodrigo d'Escoto Number of Locations: 5 Commercial: 100% 2018 Annual Sales: \$100 million*

12

Karas & Karas Glass Co.

South Boston, Mass. www.karasglass.com

President/CEO: Joe Karas Years in Business: 94 Number of Employees: 100 Number of Locations: 1 Commercial: 100% 2018 Annual Sales: \$96 million Backlog Change: Increased by 28%

13

Architectural Glass & Aluminum

Livermore, Calif. www.aga-ca.com

President/CEO: John Buckley Years in Business: 50 Number of Employees: 300 Number of Locations: 2 Commercial: 65% Residential: 35% 2018 Annual Sales: \$94 million Backlog Change: Increased by 12%

Alliance Glazing Technologies

Romeoville, III. www.allianceglazing.com

President/CEO: Brian Filipiak Years in business: 27 Commercial: 100% 2018 annual sales: \$80 million*

15

Seele Inc.

New York, N.Y. www.seele.com

President: Andreas Hafner Years in Business: 18 Commercial: 100% 2018 annual sales: S80 million*

16

Massev's Plate Glass & Aluminum Inc.

Branford, Conn. www.masseysglass.com

President/CEO: Bob Massey Jr. Years in Business: 46 Number of Employees: 306 Number of Locations: 3 Commercial: 100% 2018 Annual Sales: \$76 million Backlog change: Increased by 15%

17

Gamma North America

Concord, Ontario, Canada www.gammana.com

President: Edward Boyle III Years in Business: 45+ Number of Locations: 3 Commercial: 100% 2018 Annual Sales: S80 million*

18

Integro Building Systems

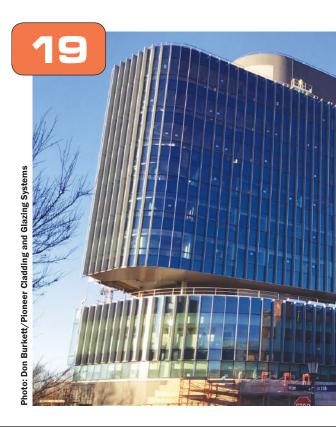
Toronto, Ontario, Canada www.integrobuild.com

President/CEO: Jim Mitchell Years in Business: 4 Number of Employees: 150 Number of Locations: 5 Commercial: 100% 2018 Annual Sales: \$70 million Backlog change: Increased by 11%



Year	Top-40 Total Annual Sales (in millions)	YoY increase
2011	\$1,470.00	_
2012	\$1,802.00	22.6%
2013	\$1,855.00	2.9%
2014	\$2,343.00	26.3%
2015	\$3,003.00	28.2%
2016	\$3,449.30	14.9%
2017	\$3,624.96	5.1%
2018	\$3,965.20	9.4%

Total sales among the top-40 contract glaziers have more than doubled over the past five years. Year-over-year growth has slowed recently, but every year since at least 2011 has been more prosperous than the last.



Pioneer Cladding and Glazing Systems

Mason, Ohio www.pioneerglazing.com

President/CEO: Tom Heinold Years in Business: 20 Number of Employees: 250+ Number of Locations: 6 Commercial: 100% 2018 Annual Sales: \$66 million Backlog change: Increased by 30%

20

TSI Corps.

Upper Marlboro, Md. www.tsicorps.com

President/CEO: Victor Cornellier Years in business: 41 Number of Employees: 195 Number of locations: 1 Commercial: 70% Residential: 30% 2018 Annual Sales: \$63.5 million Backlog change: Decreased 3%

Pioneer Cladding and Glazing Systems

was the façade contractor on the University of Virginia's Medical Expansion in Charlottesville, Va.



Giroux Glass was responsible for both interior and exterior glazing on the University of Nevada in Las Vegas's LEED Silver Certified "Hospitality Hall."

21

W.L. Hall Co.

Hopkins, Minn. www.wlhall.com

President/CEO: Craig Hall Years in Business: 71 Number of Employees: 150 Number of Locations: 2 Commercial: 98% Residential: 2% 2018 Annual Sales: \$62 million Backlog change: Increased by 30%

22

Ventana Design-Build Systems

Chicago, III. www.ventana.vc

President/CEO: Bob Trainor Years in Business: 5 Number of Employees: 30 Number of Locations: 4 Commercial: 100% 2018 Annual Sales: \$60 million Backlog change: Decreased by 10%

23

Giroux Glass Inc.

Los Angeles, Calif. www.girouxglass.com

President/CEO: Nataline Lomedico Years in Business: 73 Number of Employees: 202 Number of Locations: 4 Commercial: 80% Residential: 20% 2018 Annual Sales: \$58 million Backlog change: Increased by 40%



Dominion Canal Place in Richmond, Va., features more than 275,000 square feet of curtainwall installed by **Ventana**. A unitized system at the tower portion features diagonal stainless steel rods and vertical aluminum trusses.

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Architectural Wall Systems LLC

Des Moines, Iowa www.archwall.com

President/CEO: Adam Boeckmann Years in Business: 28 Number of Employees: 119 Number of Locations: 3 Commercial: 100% 2018 Annual Sales: \$53.1 million Backlog change: Increased by 29%

C/S Erectors Inc.

San Ramon, Calif. www.cserectors.com

President/CEO: Mike Carvin Years in Business: 31 Number of Locations: 1 Commercial: 100% 2018 Annual Sales: \$50 million*



Located in Oakland Park. Calif., the 1700 Webster project features a glass curtainwall system installed by **Rynoclad**.



Denance Michel

Krause Gateway Center in Des Moines, Iowa, was designed by Renzo Piano Building Workshop and features six stories of wall-to-wall, floor-to-ceiling glass. Architectural Wall Systems installed the all-glass lobby, which incorporates 29-feet-tall glass panels that were the second tallest IGUs in North America at the time of installation.



Haley-Greer served as the curtainwall contractor on the International Union of Operating Engineers Training and Conference Center in Houston, which was completed in 2018.

Admiral Glass Co.

Houston, Texas www.admiralglass.net

President/CEO: Les Craft Years in Business: 35 Number of Employees: 276 Number of Locations: 4 Commercial: 98% Residential: 1% Automotive: 1% 2018 Annual Sales: \$47.9 million Backlog change: Increased by 3%

RynoClad Technologies Inc.

Ontario, Calif. www.rynoclad.com

President/CEO: Vic Wright Years in Business: 7 Number of Employees: 150 Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$46.5 million Backlog Change: Increased by decreased 21%



Haley-Greer Inc.

Dallas. Texas www.haleygreer.com

President/CEO: Letitia Haley Barker Years in Business: 40 Number of Employees: 150 Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$45 million Backlog change: Decreased by 4%

Glass Solutions Inc.

Itasca, III. www.gsichicago.com

President/CEO: Andy Hill Years in Business: 20 Number of Employees: 85 Number of Locations: 1 Commercial: 100% 2018 Annual Sales: \$43.5 million Backlog change: Increased by 20%



Kensington Glass Arts gets involved with a variety of glazing projects, such as the Madison Marquette offices in Washington, D.C.

30

Ranger Specialized Glass Inc.

Houston, Texas www.rangerglass.com

President/CEO: Robert Malone Years in Business: 35 Number of Employees: 120 Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$43 million Backlog change: Increased by 11%

Kensington Glass Arts Inc.

ljamsville, Md. www.kensingtonglass.com

President/CEO: David Stone Years in Business: 42 Number of Employees: 205 Number of Locations: 3 Locations Opened in '18: 1 Commercial: 100% 2018 Annual Sales: \$40.6 million Backlog change: Increased by 14%

Top 5

Companies by Number of Locations



1.	Binswanger	
2.	Harmon18	
3.	Enclos15	
4.	Granite State Glass14	
5.	Benson 10	

lop | Companies by Number of Employees



1.	Permasteelisa	1600
2.	Binswanger	827
3.	Benson	800
4.	Harmon	700

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Granite State Glass

Gilford, N.H. www.granitestateglass.com

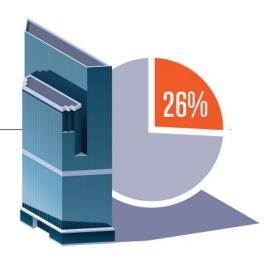
President/CEO: William Marcotte Years in Business: 36 Number of Employees: 230 Number of Locations: 14 Commercial: 40% Residential: 45% Automotive: 15% 2018 Annual Sales: S40 million Backlog change: Increased by 5%

33

Tower Glass

Santee, Calif. www.towerglass.com

President: Evelyn Swaim Number of Locations: 2 Commercial: 100% 2018 Annual Sales: S40 million*



Unitized on the Rise

Over the past three years, 26 percent of glazing contractors that install curtainwall say they work with unitized systems on a regular basis.* Midto large-sized firms (those with \$10 million or more in annual revenue) are much more likely to regularly install unitized systems than small contractors.

*According to Key Media & Research Industry Outlook data from 2017-2019

BIGGER, BETTER, STRONGER

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For the InterContinental Minneapolis-St. Paul Airport Hotel in Minneapolis, Egan's InterClad team installed two different curtainwall systems, demising wall closures, stool trim, aluminum doors, and brake metal. The project also features an interior glazing system to achieve high STC ratings.





SPS Corp.

Apex, N.C. www.spscorp.com

President/CEO: Mike Russo Years in Business: 36 Number of Employees: 85 Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$38 million Backlog change: Decreased by 6%

35

Egan Company/InterClad

Champlin, Minn. www.eganco.com

President/CEO: Duane Hendricks Years in Business: 20 Number of Employees: 80 Number of Locations: 1 Commercial: 100% 2018 Annual Sales: \$38 million Backlog Change: Steady; anticipating increase in 2019

36

Cherry Hill Glass Co. Inc.

Branford, Conn. www.cherryhillglass.com

President/CEO: Kevin O'Neill Years in Business: 26 Number of Employees: 125 Number of Locations: 1 Commercial: 95% Residential: 5% 2018 Annual Sales: \$36.5 million Backlog change: Increased by 10%

Northern Glass Inc.

Elk Grove Village, III. www.nglass.com

President/CEO: Eric Martinson Years in Business: 17 Number of Employees: 115 Number of Locations: 1 Commercial: 100% 2018 Annual Sales: \$36.4 million Backlog change: Increased by 10%

38

Elicc Americas Corp.

Escondido, Calif. www.eliccgroup.com

President/CEO: Ethan Li Years in Business: 3 Number of Employees: 82 Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$35.7 million Backlog change: Increased by 18%

39

Roschmann Steel & Glass Constructions Inc.

New Haven, Conn. www.roschmann.group/en

President/CEO: Martin Wolgschaft Years in Business: 67 Number of Employees: 240 Number of Locations: 4 Commercial: 95% Residential: 5% 2018 Annual Sales: \$35 million Backlog change: Increased by 15%

40

Josloff Industries LLC

Newark, N.J. www.josloffglass.com

President/CEO: Alberta Josloff Years in business: 115 Number of Employees: 95 Locations: 1 Commercial: 100% 2018 Annual Sales: \$35-40 million

41

Above All Storefronts

Hauppauge, N.Y. www.aboveallstorefronts.com

Owner: John Cashel Locations: 1 Commercial: 100% 2018 Annual Sales: \$35 million*



Ajay Glass completed the glazing on the Montreign Casino Resort Hotel in Monticello, N.Y., in 2018.

42

Ajay Glass Co.

Canandaigua, N.Y. www.ajayglass.com

President/CEO: Steve Stathopoulos Years in business: 60 Number of Employees: 180 Number of locations: 2 Commercial: 100% 2017 annual sales: \$32.2 million Backlog change: Increased by 20%





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PROJECT COLLABORATION

"If We're Not on Time, We Will Not Make Money"

One of the biggest challenges for contract glaziers is working closely enough with architects to provide education about building envelope details and designs. Early collaboration, for example, allows glazing contractors to help architects finish the detailing, and it often comes in the way of design-build or design-assist delivery methods. By engaging with the architect and project team early on, contract glaziers can provide assistance in areas such as developing and staying within a budget. In turn, this can help avoid seemingly simple changes that could ultimately have significant pricing implications.

Contract glaziers are quick to point out the numerous challenges inherent in working with architectural designs and specifications. According to Coleman Jones, director of business development with Pioneer Cladding and Glazing Systems in Cincinnati, these can include issues with door and hardware specifications. He says this information isn't always available early when the project is awarded.

"And when they are available, they're specified in a configuration that doesn't work," he says.

Another concern he points out is that specifications are becoming increasingly stringent and are sometimes unobtainable while warranties keep growing. And then there's timing.

"The design changes and the lack of decision-making delay projects and hurt every party involved—owner, architect, general contractor and all of the subs," he says. "This costs everyone time, money and even people."

Kristopher Lazaroff who is a part of the Elicc America Group field business development team, says all of the projects his company takes on are design-assist, allowing them to work closely with the project team, including owners, architects and contractors.

"We are able to design the most cost effective system to meet the aesthetic and functional needs, such as sound transmission and thermal insulation capabilities," he says. "We are also able to design the most cost efficient system for installation, speeding up construction time, such as changing from a window wall to curtainwall system."

Marty Trainor, vice president of pre-construction with Ventana Design-Build Systems based in Chicago, agrees the biggest challenge with specifications are the inconsistencies.

"Specifications can ask for certain materials that do not meet the performance requirements stated in other sections of the specification," he says. "Do we bid the specified materials or the more expensive materials that meet performance requirement?"

Getting involved with the project early on can help alleviate many of these issues. "You get brought in as part of the solution, you can create reverse schedules, note

important lead times and head off multiple problems," Jones says "Additionally, being brought in as a design-assist partner helps align each party's goals. I believe that one of the key factors from this point is establishing a clear budget. We all know what it takes to hit the budget, but if the budget stays a secret we all keep chasing our tails. That being said, our plan is to use our reputation to deliver design-assist collaboration on time and within budget so that we continue being brought to the table."

According to Trainor, "By being involved early, we can help develop the appropriate design criteria that meet project requirements and budget, while maintaining the aesthetic desired by the design team ... [early involvement] allows us to price all the components of the façade systems individually."

He adds, "Collaborating is the only way of being able to meet aggressive schedules with complex façade elements. If we are not on time, we will not make money"

-Ellen Rogers

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Dynamic Glass LLC

Houston, Texas www.dynamicglass.com

President/CEO: Rick Cieslewicz Years in Business: 28 Number of Employees: 145 Number of locations: 3 Commercial: 100% 2018 Annual Sales: \$31 million Backlog change: Increased 150%



Progress Glass

San Francisco, Calif. www.progressglass.com

President/CEO: Chuck Burkard Years in Business: 60 Number of Employees: 128 Number of Locations: 2 Commercial: 80% Residential: 20% 2018 Annual Sales: \$30 million Backlog change: Increased by 15%

45

Alexander Metals Inc.

Nashville, Tenn. www.alexandermetalsinc.com

President/CEO: Alec T. Estes Years in Business: 26 Number of Employees: 85 Number of Locations: 1 Commercial: 100% 2018 Annual Sales: \$30 million Backlog change: Increased by 16%



One side of the OLE Health medical building located in Napa, Calif., is enclosed in glass from the floor to ceiling installed by **Progress Glass**.

Photo: Ken West

46

Crawford Tracey Corp.

Deerfield Beach, Fla. www.crawfordtracey.com

President/CEO: Ray Crawford Years in Business: 63 Number of Employees: 110 Number of Locations: 2 Commercial: 95% Residential: 5% 2018 Annual Sales: \$28.8 million Backlog change: Increased by 90%

47

National Enclosure Co. LLC

Ypsilanti, Mich. www.nationalenclosure.com

President/CEO: David Sauld Years in Business: 61 Number of Employees: 50-70 Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$27.3 million

48

Miller Glass & Glazing Inc.

Pompano Beach, Fla. www.millerglass.biz

President/CEO: Sidney S. Miller Years in Business: 25 Number of Employees: 120 Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$25 million Backlog Change: Increased by 15%

For the 801 Lincoln Road project in Miami Beach, Fla., **Crawford-Tracey** installed its high performance glazing system, Pro-Tech 7SG.

49

Specified Systems Inc.

Canonsburg, Pa. www.specifiedsystems.com

President/CEO: William K. Wilson Years in Business: 27 Number of Employees: 70+ Number of Locations: 2 Commercial: 100% 2018 Annual Sales: \$24.5 million Backlog change: Increased by 35%

50

ACE Glass

Little Rock, Ark. www.aceglass.net

President/CEO: Courtney Little Years in Business: 32 Number of Employees: 110 Number of Locations: 2 Work Commercial: 96% Work Residential: 4% 2018 Annual Sales: \$23 million Backlog change: Increased by 10%

> Designed by Cromwell Architects, Ace Glass was responsible for the glazing installation on the ArcBest Corporate headquarters located in Fort Smith, Ark.