



Company name, headquarters	Gross sales Millions of dollars			Offices	Employees			Construction percentage		Previous year rank
	2005	2004	2003		Field	Office	Total	New	Renovation	
1. Harmon Inc., Eden Prairie, Minn.	\$215	\$168.5	\$144.5	15	784	301	1085	80	20	1
2. Enclos Corp., Eagan, Minn.	145	131.6	143	16	285	165	450	100		2
<b>3. Walters &amp; Wolf, Fremont, Calif.*</b>	<b>111.2</b>	<b>107.1</b>	<b>94.2</b>	<b>5</b>	<b>271</b>	<b>161</b>	<b>432</b>	<b>95</b>	<b>5</b>	<b>4</b>
4. Trainor Glass Co., Alsip, Ill.	72	75	73	7	146	95	241	80	20	3
5. W & W Glass, LLC, Nanuet, N.Y.	60	54	47.9	2	150	45	195	80	20	5
6. General Bronze Corp., Larchmont, N.Y.	60	14	12	3	30	19	55	75	25	None
7. Architectural Glass & Aluminum, Oakland, Calif.	44.5	45.5	44.3	2	82	70	152	95	5	None
8. Karas & Karas Glass Co., South Boston	40.9	37.8	45.9	1	88	30	118	95	5	6
9. Architectural Wall Systems Co., West Des Moines, Iowa	33.6	26	13.4	1	120	20	140	90	10	9
10. MTH Industries, Hillside, Ill.	27.5	22.9	22.9	1	105	26	131	90	10	10
11. TSI/Exterior Wall Systems Inc., Landover, Md.	24.7	21.3	24.1	1	135	20	155	80	20	13
<b>12. Sierra Glass &amp; Mirror Inc., Las Vegas</b>	<b>24</b>	<b>24.3</b>	<b>23.4</b>	<b>1</b>	<b>100</b>	<b>10</b>	<b>110</b>	<b>80</b>	<b>20</b>	<b>None</b>
13. Admiral Glass & Mirror, Houston	23	19.5	21	2	190	22	212	85	15	15
14. East Coast Glass Systems Inc., Richmond	22.4	21.5	17.8	2	125	25	150	75	25	12
15. Masonry Arts Inc, Bessemer, Ala.	22	23.8	24	2	273	70	343	90	10	9
16. American Glass and Metals Corp., Plymouth, Mich.	21.5	15.4	12.3	1	60	14	74	80	20	21
17. Heinaman Contract Glazing, Lake Forest, Calif.	20.7	12.9	9.2	2	100	20	120	98	2	28
18. Cartner Glass Systems Inc., Charlotte, N.C.	20.7	12.8	18.4	2	52	12	64	80	20	29
19. Sunset Glazing, La Mesa, Calif.	18.8	8.8	11.3	1	45	6	51	100		42
20. Giroux Glass Inc., Los Angeles	18.4	16.2	16.2	2	120	40	160	50	50	20
21. Walker & Laberge Co., Norfolk, Va.	17.6	15	14	3	108	20	128	98	2	23
22. U.S. Glass & Aluminum Inc., Pittsburg, Calif.	16.3	17.6	15	2	50	18	68	90	10	18
23. Zephyr Aluminum Inc., Lancaster, Pa.	16.3	13.1	13.7	3	56	22	78	80	20	26
<b>24. Tower Glass Inc., Santee, Calif.</b>	<b>16</b>	<b>20</b>	<b>24</b>	<b>1</b>	<b>85</b>	<b>16</b>	<b>101</b>	<b>90</b>	<b>10</b>	<b>14</b>
25. Arcadia Products, Northbrook, Ill.	15.9	15.4	10.7	1	35	15	50	90	10	22

Profiled companies appear in red. \*This is the first year Walters & Wolf provided sales information for locations outside of California.

Company name, headquarters	Gross sales Millions of dollars			Offices	Employees			Construction percentage		Previous year rank
	2005	2004	2003		Field	Office	Total	New	Renovation	
26. Juba Aluminum Products Co., Concord, N.C.	\$14.7	\$10.1	\$14.5	1	113	15	128	85	15	None
27. Alexander Metals Inc., Nashville	14.5	10.2	9.8	1	55	15	70	95	5	38
28. Dothan Glass Co., Dothan, Ala.	14.2	9.5	9	4	98	39	137	89	11	39
29. Interclad, Plymouth, Minn.	13.8	18.1	13.3	2	50	12	62	90	10	17
30. Galaxy Glass & Aluminum, Inc., Manchester, N.H.	13.8	10.3	10.3	2	65	19	84	98	2	37
31. Builders Architectural Products Inc., Deerfield, Ill.	13.4	16.4	17.1	1	4	15	19	90	10	19
32. Ridgeview Glass Inc., Upper Marlboro, Md.	13.4	11.2	10.4	1	70	10	80	60	40	33
33. ASI Limited, Indianapolis	13.1	12	16.1	2	100	25	125	98	2	31
34. HKL Cladding Systems Inc., White Bear Lake, Minn.	13	14	15.3	2	2	8	10	100	0	24
35. BHN Corp., Memphis	12.2	22	16.9	1	56	17	73	95	5	11
36. Carter Glass Co., Kansas City, Mo.	12	13	12.5	1	42	10	52	75	25	27
37. JMD Architectural Products, Tipp City, Ohio	11.1	6.9	4.8	2	27	9	36	60	40	43
38. Glass & Mirror America, Clarendon Hills, Ill. (formerly Glass America)	9.4	9.1	9.6	3	64	13	77	72	28	40
39. Suntech of Connecticut Inc., North Branford, Conn.	9.2	8.9	6.8	1	25	10	35	75	25	41
40. Modern Mirror & Glass Co., Roseville, Mich.	9.0	13.3	13	1	40	20	60	80	20	25
<b>41. W.S. Nielsen Co., Alpharetta, Ga.</b>	<b>8.0</b>	<b>8.9</b>	<b>8.8</b>	<b>1</b>	<b>10</b>	<b>11</b>	<b>21</b>	<b>65</b>	<b>35</b>	<b>None</b>
42. Champion Metal & Glass Inc., Deer Park, N.Y.	7.6	10.8	6.7	1	18	15	33	90	10	34
43. La Mesa Glass Inc., Lemon Grove, Calif.	7.3	6.5	5.9	1	36	8	44	73	27	44
44. Bacon & Van Buskirk, Champaign, Ill.	7.2	4.5	6.1	3	20	40	60	65	35	None
<b>45. Louisiana Glass Inc., Baton Rouge, La.</b>	<b>7.1</b>	<b>5</b>	<b>4.3</b>	<b>1</b>	<b>32</b>	<b>6</b>	<b>38</b>	<b>70</b>	<b>30</b>	<b>None</b>
46. Austin Glass & Mirror Inc., Austin, Texas	7	6.5	4.9	1	39	14	53	90	10	45
47. Hale Glass Inc., Anaheim, Calif.	6.9	5.9	5.6	1	43	9	52	90	10	47
48. Anco Inc., Davidsonville, Md.	6.4	5.4	3.1	2	38	6	44	95	5	49
49. Sound Glass Sales Inc., Tacoma, Wash.	6.1	5.4	3.2	3	22	5	27	80	20	50
50. Glass Systems Inc., Orlando, Fla.	5.1	4.1	3.1	1	30	7	37	95	5	None

## Walters & Wolf Inc.

Serves a select few

By Gina Rollins

3<sup>rd</sup>

Long and deep customer relations: the hallmark of Fremont, Calif.-based Walters & Wolf. Managers of the 29-year-old company prefer to work exclusively with a handful of clients. "Each office has four or five core customers and we do our dead-level best to service them across a broad spectrum of projects," says George Chrisman, vice president of sales and estimating. "We get calls from contractors coming into the market for a specific project but we're not looking for those types of jobs."

That formula has been instrumental in fueling Walters & Wolf's expansion across the West Coast. The company has about 580 employees; three autonomous divisions oversee projects in Fremont, Las Vegas, Los Angeles, Phoenix and Seattle.

Although each division has the same resources for design and production, their work reflects characteristics of each market. "The customer base [in each city] and the style of work is slightly different," Chrisman says. Projects in Las Vegas lean toward monumental casinos and condominiums, whereas Seattle glaziers work on more high-end public facilities such as the University of Washington Genome Sciences and Bioengineering building in Seattle. Employees from the divisions collaborate as needed to meet work-flow and capacity demands.

To achieve its full-service strategy, Walters &



Clark Center, Stanford University, Stanford, Calif.

Wolf's managers have invested in design and production resources. Chrisman estimates the company designs and manufactures 80-to-90 percent of all products its workers use. This gives them considerable flexibility as well as the capability to install entire building skins, as they did with the James H. Clark Center at Stanford University. The \$12.1 million project, completed in 2004, included installation of 50,000 limestone and granite landscaping stones, a custom unitized window wall and an aluminum rain-screen system, also known as EuroPanels.

That's just the way the firm likes it, Chrisman says. "We're a relationship-driven company and we take a big-picture approach."

## Sierra Glass

Thrives on glitzy, special designs

By Lisa Rabasca

12<sup>th</sup>

When visitors to Las Vegas' strip look at the skyline, they see Sierra Glass & Mirror Inc. everywhere. Sierra Glass has worked on nearly 80 percent of the strip's world-famous hotels and casinos including the Aladdin, Bellagio, Luxor, Mandalay Bay, New York New York, Paris, Rio, Venetian and Wynn Las Vegas.

Las Vegas native John Kight started the company 27 years ago. Today, daughter Robyn McGinnis keeps his vision alive.

"He and mom had \$8,000 to their names and they spent every cent they had to open their own glazing business," says McGinnis, president of Sierra Glass & Mirror.

Kight was a glazier. "He knew the trade and always delivered quality work on time," McGinnis

Panevino restaurant, Las Vegas.



says. "That reputation has sustained us."

The company provides exclusive, custom work to its entertainment and hospitality clientele, says Vice President John Shum. The designs are cutting-edge. The company recently completed a serpentine 400-foot glass curtain wall twisted around a building leaning inside and out. The wall was part of Panevino, an Italian restaurant in Las Vegas, and took six months to complete. Although the project only brought in \$400,000, McGinnis says it was not a small job. "There was so much custom work that it was challenging and very rewarding."

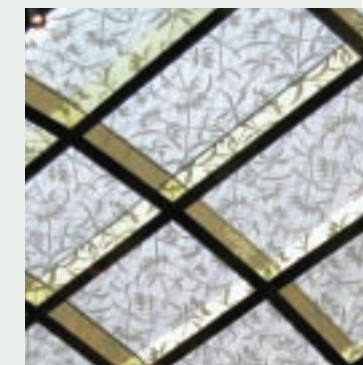
Sierra Glass also worked on the low-rise casino at Wynn Las Vegas designed by a nonarchitectural interior-design firm, Wynn Development of Las Vegas. "The [designers] drew pictures of what they wanted, and we had to figure out how to do it," Shum says. The casino might be among the first in

Vegas to include skylights, he says. The two-year, \$14 million project also included heavily carved glass doors, oversized shower doors and oversized curtain walls.

The 120-employee company is working on two 35-story condo high-rise projects known as Panorama I and Panorama II in Las Vegas, valued at \$9.4 million and \$11.3 million, respectively. They feature internal and external glass and mirrors, floor-to-ceiling glass windows that provide views of the strip, shower doors, mirrors and handrails on outdoor balconies. Each project will take about 12 months to complete. Sierra is working on the Panoramas with area general contractor M.J. Dean Construction Inc.

"Vegas is attracting out-of-state contractors," McGinnis notes. "When two local companies work on a project, it's a source of pride."

Detail, Wynn Las Vegas.



## Tower Glass Inc.

Specializes in complex projects

By Gina Rollins

The motto of Santee, Calif.-based Tower Glass: The more complicated the better. The 17-year-old company stakes its reputation on designing, engineering, fabricating and installing large, intricate commercial projects.

"The joke around here is, if it's a clean job we probably won't get it," says Barry Swaim, secretary and chief financial officer. By "clean," he means a relatively simple construction project. "We like working with [a high] level of complexity, projects that require considerable pre-planning and don't involve off-the-shelf products."

Recent examples of Tower's technical wizardry include the University of California in San Diego's California Institute for Telecommunications and Information Technology building in La Jolla, and the Biogen Idec manufacturing and laboratory facilities in Oceanside, Calif. The \$8 million UCSD project took 18 months and features 18 different types of glass, three types of curtain walls—unitized, stick-built captured, and structural silicone—metal, composite and trespa panels, and glass handrails. "It required upfront planning and testing and considerable coordination between fabrication shop and material suppliers," Swaim recalls. The \$6 million Biogen Idec job featured 3-

foot-deep sunshades structurally supported by, and attached to, the curtain wall. "They had to withstand a certain point load and didn't go back and attach to the building. They were strictly suspended by the curtain wall," he says.

The commitment to such exceptional projects is a family affair: Swaim and wife Evelyn founded the company in 1989. Evelyn serves as president; their son Ryan is head estimator and Swaim's brother, Jeff, vice president of operations.

The company employs 120. In 2002, it launched a special projects division primarily to address tenant improvements and modifications. Since then, the division has evolved to work on equally elaborate but much smaller scale projects than Tower's bread-and-butter business. The key to the company's staying power is its capable and talented staff, Swaim says. "We have a good group of loyal employees. Some have been with us since we started and a core has been here for a great length of time."

California Institute for Telecommunications and Information Technology, University of California in San Diego, La Jolla, Calif.

24<sup>th</sup>



# 50 contract glaziers

## W. S. Nielsen Co.

### A one-stop solution

By Sahely Mukerji

41<sup>st</sup>

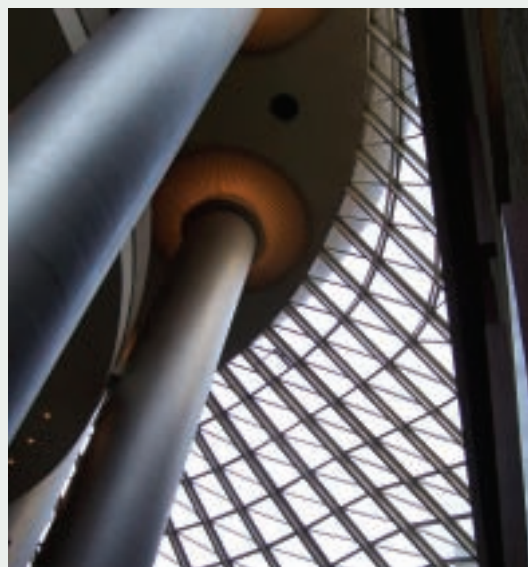
**W**alt Nielsen probably did not realize that he was reaching for the stars when he started selling skylights from his garage in 1980. Today, W.S. Nielsen Co. has 30 employees headed by Mike Nielsen, Walt's son.

Its product mix makes the company one-of-its-kind in the market, Nielsen claims. "We offer design, consulting, sales and installation for specialty products and skylights," to owners, architects and general contractors, he says.

WSN provides and installs skylights and sloped glazing, and architectural mesh, sunshades, grills and louvers. "The WSN Co. can be considered a one-stop solution for customers looking for several options," Nielsen says. He strives to be "the best of the best in a small market niche, and provide customers solutions in lieu of just products and services."

WSN maintains strong relations with employees, customers, suppliers and associates, Nielsen says. That pays off when handling complex jobs such as Atlanta's Westin Peachtree Plaza hotel, CNN Center, or High Museum of Art (see September 2005 Glass Magazine, p. 68).

In the Peachtree renovation, "the biggest challenge was to field measure all the existing trapezoidal acrylic domed openings, two per original opening, while allowing for the installation of a structural diagonal member and perimeter edge bite," says Tom



Westin Peachtree Plaza Hotel, Atlanta.

Dyson, project manager, Re-Construction, Renovation and Service. "The result was a multifaceted appearance of the skylight and drastically improved lighting and aesthetics." The project brought in \$701,611 and took seven months to complete.

The CNN Center consisted of 1,200-plus pieces of glass totaling more than 42,000 square feet of vertical glass replacement and 5,000 square feet of aluminum siding panel replacement. The challenge was protection from the outside winter weather during renovation, as the "news nerve center continued operation," Nielsen says. Material handling was the other challenging aspect. The CNN Center brought in \$1.8 million and took six months to complete.

In the end, another "Restore Atlanta" project stood proud and tall reaching up to the sky.

for glass installation and refresh everyone's mind about why we do things," he says. "We make sure they take the proper steps and know the reasoning behind them."

This know-how pays off, particularly with complicated projects. Take, for instance, the Louisiana State University Stadium in Baton Rouge. Louisiana Glass installed 70 tempered glass doors that measure 7-feet-by-20-feet each. The \$2 million project took seven to eight months to complete. "I am proud of the fact that in five years, we have not had one call back for the adjustment of a door or a piece of glass that has broken," Berrigan says.

Berrigan also is proud of the work his 49 employees did on the Pennington Bio-Medical Research Center in Baton Rouge. The center includes a 40-foot-by-150-foot curtain wall—some 15,000-square-feet of glass—that stands without support. "It looks like a giant ship," he says. The \$4.5 million project took nine months to complete.

Louisiana Glass was founded in 1954 by Nelson Bourgeois. Berrigan bought the company in 1991 and has been the sole owner ever since.

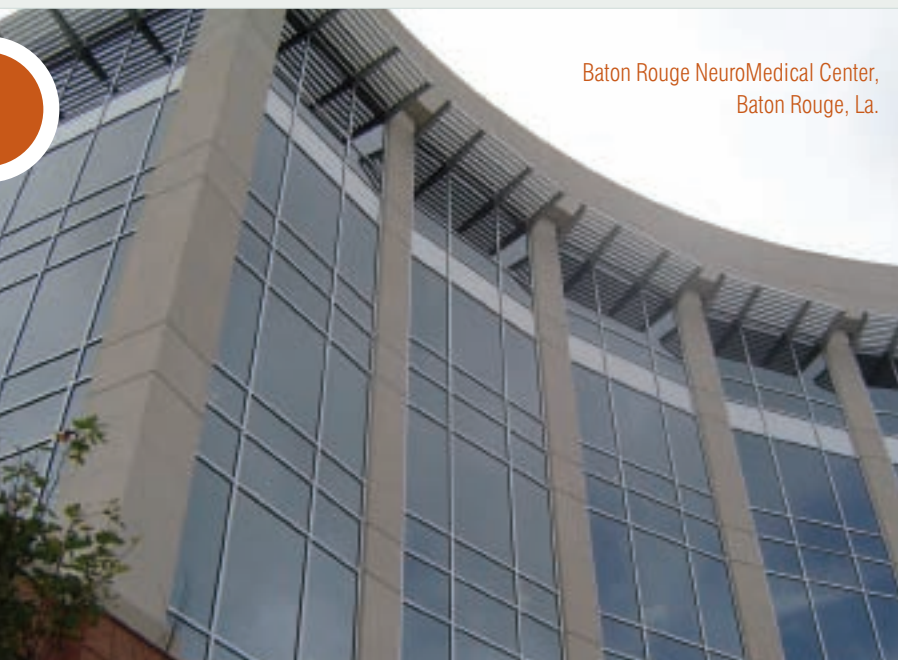
"When I bought it, it was one of the biggest glass companies in Baton Rouge," he says. "I saw an opportunity."



Baton Rouge NeuroMedical Center, Baton Rouge, La.

Originally from New Orleans, Berrigan has a long history in the glass industry. Before buying Louisiana Glass, he worked at Westshore Glass Corp. in Tampa, Kawneer Co. in Atlanta; and Arch Aluminum & Glass Co. in Tamarac, Fla. His father worked in the glass industry, too, and until Hurricane Katrina hit in 2005, his family had been importing glass from Europe through the Port of New Orleans.

"My success is because of all the people who work for me," Berrigan reflects. "I have great men in field and great project managers in the office."



Baton Rouge NeuroMedical Center, Baton Rouge, La.

## Louisiana Glass

### A million-dollar opportunity

By Lisa Rabasca

45<sup>th</sup>

**I**n the last year, Jim Berrigan Jr. has taken Louisiana Glass Inc. from a \$200,000-a-year company to a \$7 million company. His recipe for success is simple. "We offer competitive prices and good products," says Berrigan, owner of the Baton Rouge, La., company. "We have men in the field who care about what they do."

Attention to detail and in-house training set his company apart from competition, Berrigan says. "We take an afternoon off and go through the steps