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Fabricating takes off

Shop launches new structural operation, fabricates elevators for NASA

Santos Fabrication, Turlock, Calif., has watched its structural steel fabricating business take off like a rocket over the past several years. So in a lot of ways, it's fitting that the company recently helped to complete a project for NASA at its Marshall Space Flight Center in Huntsville, Ala. The company that was contracted to manufacture and install new elevators at Marshall needed structural steel parts fabricated. That's where Santos came in.

▲ *Santos Fabrication, Turlock, Calif., fabricated counterweight and sling assemblies like these for the NASA Marshall Space Flight Center in Huntsville, Ala.*

The two companies had collaborated on previous installations because the elevator manufacturer was building a new type of system and needed to work with a fabricator that used the same drafting software, SolidWorks®, said DeeDee Santos, co-owner. Santos soon began providing the elevator manufacturer with structural metal. Other elevator projects they've worked on together are at Langley Air Force Base, universities, and hospitals.

"Their niche is that [the elevator is] a nonproprietary system, and they've done some engineering that makes it a really smooth ride. They can put it into existing buildings instead of new construction only," DeeDee said. "In this economy, there are companies that want to renovate instead of tear down and build new. So they're able to put an elevator shaft into an existing building."

The job required fabricating sheet metal parts and milling heavy plate, 1 and 2 in. thick, in various widths and lengths, said DeeDee's husband, Darrel Santos, co-owner. Santos fabricated the car, the counterweight assemblies, and the entire elevator shaft.

A number of problems threatened the project. The first involved the software.

"Once they got [SolidWorks] and wanted to utilize it, they didn't know where they were going, so they were depending on our drafting department to get them through their learning curve," Darrel said. "We basically had built their library for all their parts and detailed all their drawings as they were coming from the engineer in AutoCAD®. We would convert them into SolidWorks."

The timeline of the project also proved difficult, DeeDee said. The elevator manufacturer placed large orders and needed Santos to have the jobs fabricated within days.

"It took a big, concentrated effort from our work force to have the attitude of whatever it takes to get the job done," DeeDee said. "Now that we've worked through that, we know that those timelines are expected, but it wasn't from the very beginning. The time frame shortened as their demand grew."

Perhaps the biggest problem with the Marshall job was a delay caused by additional engineering the elevator manufacturer needed to do. This held up the project for two weeks, and during that time a deep freeze caused the construction site to be shut down. When the ground thawed and the construction crew returned, Santos had to hurry to get the elevator shafts fabricated and delivered. The installer had only a small window of time to work with the crew's crane, which was needed to get the shafts up the building. The crane was scheduled to be removed, and if the shafts weren't delivered before that, then they would have to be hoisted up via a chain. Even though Santos had less time than originally anticipated, it got the shafts done and out to the job site in time.

According to Darrel, the company met these challenges because it did several things: It built teamwork in the shop, cross-trained workers, and sold employees on the fact that the elevator manufacturer—a new customer—would provide a lot of work. Much of this happened just as the economy was starting to slow down.

"People, especially in our area, were willing to leave a company at the drop of a hat just to go to a competitor for another dollar more," Darrel said. "As we started getting into this downturn in the economy, people started getting scared. We presented ourselves to our employees as 'We're solid; we have this work; we need to know that we have the work force that's going to get it done.'"

While the company was working to sell this concept to its employees, it also was working to implement lean initiatives and streamline operations. Most of the workers got onboard with the new direction and stuck with the company. Even though some downsizing was necessary—Santos employs 12 full-time workers, as opposed to 22 last spring—the company has gotten more efficient and reaped the benefits, Darrel said. Even though the work force is smaller, Santos has increased its sales this year.

Darrel and DeeDee opened Santos Fabrication in 2000 with just one part-time employee. It had just 800 square feet of shop space. The company has grown considerably since, occupying 27,000 sq. ft. and supporting fabricating, welding, machining, and design operations. Its work with the elevator company is one of the main reasons the company has grown. Orders continue to come in—the company currently is fabricating full-shaft elevator cars for the Valley Medical Center in the state of Washington.

To a certain extent, Darrel and DeeDee credit the increased efficiency as a reason that the company is thriving under uncertain economic conditions. But they also believe another initiative is just as responsible for their success: marketing the company and keeping its name out there despite the tough business climate.

"We're doing more in marketing now than probably we have combined in all the years that we've been in business," DeeDee said. "So we're working hard and branding and positioning ourselves so that when the economy comes back strong, it should pay off even more for us."

Proud of what you're fabricating or what your company is doing? Let us know about it. We might highlight the story on the Back Page.

Michael Bishop

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The FABRICATOR (ISSN 0888-0301) is published 12 times yearly by FMA Communications Inc., 833 Featherstone Rd., Rockford, Illinois 61107-6302. *The FABRICATOR* is circulated free upon request to those who qualify and who are involved in metal fabricating; subscription to all others is $75.00 per year. International subscription is $140.00 per year. Periodical postage paid at Rockford, Illinois, and additional mailing offices. POSTMASTER: Send address change to The FABRICATOR, 833 Featherstone Road, Rockford, Illinois 61107-6302. Printed in the U.S.A.