

Long Pole Bending Facilities by Pacific Tandem Press Brakes

Opening Doors To New Business Opportunities at Southeast Fabricators

For Southeast Fabricators, Inc., a \$1.6 million order backlog to build mast poles for traffic lights and highway signs allowed them to get into this entire new product line. But they had one major problem, no forming equipment to produce them. President Jeff Burkett of Southeast Fabricators, Inc. (Sanford, FL) said, "In 1983, my father started a company called Southeast Fire Sprinklers. We did mechanical contracting to build fire suppression systems. To keep our crews busy during slow periods, we were looking for filler work. With this in mind, we started a sign-structure fabricating business in 1992 called Southeast Fabricators, a division of Southeast Fire Sprinklers. It started off small and kept growing, and it got to the point where it was going to take a full-time person to continue the growth of the structure business. So I pulled out of the fire sprinkler business and went into overhead highway sign structures. Back in 1998 we split off and made Southeast Fabricators a standalone company.



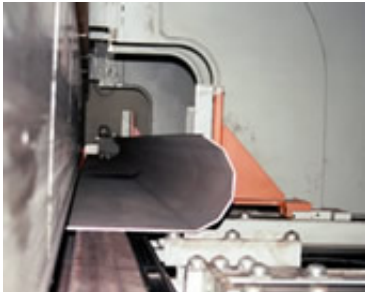
Burkett added, "Our plant currently has 75,000 sq. ft. of office and manufacturing space. We have 20 employees with 12 in the shop and 8 in the office. Currently, we are doing enough product that we're staying where we need to be for people and equipment, but as we grow, obviously our workforce in the shop is going to increase." To get into the utility pole manufacturing business and take care of their \$1.6 million backlog of orders, Burkett said they had to acquire the right equipment to give them the flexibility and productivity they needed. They looked at several press brake companies' equipment, but settled on Pacific Press Technologies L. P. (Mt. Carmel, IL). From Pacific, they purchased two Fabri-K 750-25/22 DNC hydraulic tandem press brakes. Along with this purchase, they added material handling equipment that would let them be very productive and cost competitive for pole manufacturing.

Pacific provided Southeast Fabricators with two 750-ton, 25-foot press brakes that are connected in tandem using Pacific's unique electrical and hydraulic synchronization. This arrangement gives the company a 50' long bed for long part forming and two individual brakes for short parts. The brake has a 44" throat that allows Southeast to produce up to a 28" diameter pole in one setup without turning it around. The system uses a laser-line generator at each end of the press brake, which is integrated into the electrical system. A visible red laser line is projected along the centerline of the tooling and across the plate for positioning the bend line accurately. "When we took possession of this equipment, we had already backlogged a lot of work. We were not manufacturing any kind of poles prior to purchasing it either. So this forming equipment was very vital to us opening up the utility pole side of our business," Burkett remarked.

Southeast Fabricators produces several different poles. Most of them are eight sided with a slight taper towards the top, but they also produce ones without tapers. To produce a pole, they mainly use 3/16" and up to 3/8" thick cold-rolled steel. They have

also produced poles using 1/2" and 5/8" steel. After bending and welding, a pole has other components added to it such as a base. Then it's cleaned, galvanized, primed, and painted.

Burkett added, "Changing dies in a 50' press brake is a little time-consuming. We try to stay with the 3/16" to 3/8" thick steels, so we won't have to make numerous die changes. The sheet steel that we use is 72", 84", or 96" wide and runs anywhere from 480" up to 600" long. We use long lengths and widths that minimize the amount of scrap we have." Pacific's Fabri-K press brakes were designed with special plate fabricating features and capabilities. Southeast also had Pacific design the tooling for the brake, which included a 32" ram extension, special upper punch, an adjustable female channel die, and 4" of additional open height with a 4" spacer 50' long to accommodate addition of an automated bed crowning system in the future. Burkett said that the Pacific staff



was great to work with and their engineering team and the sales force really understood his problems in producing poles. Since Pacific already had plenty of experience in doing this type of work, they were able to provide Burkett with the most efficient equipment.

"When I first contacted Pacific to discuss the equipment design, we went back and forth to make sure we had a big enough piece of equipment that could accommodate both the biggest and smallest poles that we needed," said Burkett. "When we first sat down with them, I told them I wanted to do this work with the least amount of manual labor. Labor is a factor that's very hard to control. So the least amount of people you have means that you can have control over everything you're doing," Burkett added. "I told them I wanted an automated material handling system that would manipulate the sheet in and out of the press, and move the bent pole to a storage rack. I've seen other companies use manual equipment, and it's very time-consuming when you're trying to push a big piece of plate around with an operator who weighs 180 lbs. pushing a piece of plate weighing 3,000 or 4,000 lbs," said Burkett.

Pacific designed a manipulator and extractor system along with a roller-conveyor table with pushers on it to automatically move the sheet into the brake. "Pacific did a systems design, and we critiqued it. Then when they had the equipment ready to ship, we took material to their plant in Mt. Carmel where I spent a week making poles in their facility. Despite some minor problems and changes, when I left Pacific I was very pleased with what I'd seen and bought," remarked Burkett.

Originally, Burkett said they received quotes from other companies, and all the manufacturers were competitive. He added, "It was pretty tight on the cost issue, but the thing that sold us on Pacific was that their plate bending equipment is made in the United States. This was a big bonus to us. Another thing was the follow up and the communication level that we had with Pacific during the pre-purchasing time frame. They communicated with us on the items that we had concerns with. This equipment adds up to more than just the price, because you have to look at the service that you're getting afterwards, and the service that you're getting prior to making this type of large commitment. "Also, because we hadn't been in the pole business prior to getting the brake, Pacific understood that we were in a production mode, and that we wanted to move quickly. When we added the manipulator system to the front of the machine, it was due to seeing some other plants that had Pacific equipment that were producing utility poles," added Burkett.

These companies were manually moving pieces of steel in and out of the brake. Then after bending the sheet into a pole, they would use a winch cable to pull the pole out of

the brake. "Our system was designed to move the sheet metal into the machine using a joy-stick to control a pusher system. To get the bent pole to exit the machine, it's just a matter of pushing a button. There's no manual labor involved to move the pole, because a pole extractor pushes it out of the brake into a staging area. From there, it's moved by an overhead crane to our seaming machine where the seam is automatically welded. "So getting the sheet steel into the machine, out of the machine, and getting the bent pole ready to be welded as fast and productively as possible was the key. Every aspect of the way we configured this system has been a major plus. It's also kept the amount of people needed for this business down. We use the same two people from start to finish versus having to have five or six people to move material in and out of the brake," said Burkett. "Also, Pacific's computer system is everything we needed and more. We probably don't use it to its fullest capabilities. It's straightforward and has the latest programming for our needs. The controller on our system is by far more advanced than what we needed today, but we were looking down the road for future work when we bought it," remarked Burkett. We bought this equipment to do the toughest pole job that we've ever seen, and it's lived up to doing that," said Burkett.

"I have recommended Pacific to a competitor in the Texas area. He just purchased a system in the summer of 2003. The company's owner came in to see my system, and then he sent me an email about a week later saying 'thanks for the word, help, and knowledge. We purchased a machine from them and we look forward to getting it.' So, as far as recommending Pacific press brakes, I would - absolutely," replied Burkett.

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