

ACME'S HIGH VOLUME, HIGH QUALITY OPERATION



NEW TECHNOLOGY AND AUTOMATION ARE DRIVING THE PENNSYLVANIA CORRUGATOR PLANT'S CONTINUED GROWTH. BY ZANNAH STAGGS, BAUMER HHS

Acme Corrugated Box Co. in Hatboro, Pa., is well-known in the board converting industry for its constant state of expansion and penchant for delivering the highest quality product. To do that requires continuous investment in cutting edge technology.

"It has been great to watch the evolution of this organization," says Kevin Landman, Production Manager, who joined the company in 2002 as floor operator on the corrugator. "I came in right when they moved into this facility with all of their old equipment. Now we have all new equipment. I have seen a piece of equipment move five, six times to make room for new equipment coming in."



KEVIN LANDMAN (LEFT) AND JEREMY COHEN NEXT TO THE HHS VISION AND GLUING SYSTEM MONITOR ON ACME'S SATURN FLEXO FOLDER-GLUER.

Acme Corrugated Box

The company relocated from Bensalem, Pa., to Hatboro in 2001 and in 2010 installed a 98-inch Fosber corrugator.

"We are an independent, but we do process a large number of orders," says Jeremy Cohen, Engineering/Logistics/Facilities Manager. "To some degree we can't think like a mom and pop, but we still want to have that entrepreneurial spirit, that flexibility. We don't want to think like an integrated company, but we have to think higher volume. The question is how can we get product produced quicker, cheaper and with potentially less labor?"

The family-owned independent, which is approaching its 100-year anniversary, was founded by Cohen's grandfather, Edward in 1918. He chose the name "Acme" to get premier up front placement in the phone book.

"In the '70s is when we really started manufacturing," Cohen says. "Prior to that, we were a jobber; so we were selling stock boxes, packaging supplies and job lot boxes. So we have obviously come a long way from then. In the '80s and '90s we became a pretty sizable sheet plant, and in the 2000s we moved into our current facility and became a full box plant with a corrugator. Learning how to run a corrugator was a real challenge. Today, our corrugator is an impressive, innovative, state-of-the-art machine."

Acme serves a highly diverse industrial market including pharmaceutical, automotive, food distribution, consumer products, and construction. The 250,000-sq-ft plant has maintained a 98% on-time delivery record for the last five years. Eighty percent of orders ship in 72 hours or less. The company has a 0.35% total reject

rate. There are approximately 180 employees working two shifts.

"We are not a typical box plant where we sit on big orders and have long lead times," Cohen says. "You call today, you get your boxes tomorrow and we expect it to be a quality product when it leaves the door. We produce an average of 180-200 orders a day. Our order sizes are small, we have to be able to set up and run."

Inline Inspection

On the printing and converting side Acme has six flexo folder-gluer up to three-color and two rotary and one flatbed diecutter. New technology and automation are driving forces behind continued growth. For example, the company has two hhs vision and gluing systems — an Xcam system on a Langston Saturn two-color flexo folder-gluer with inline diecutting and an Xcam system on a Bobst 924NT three-color flexo folder-gluer with inline diecutting.

"We want to become low cost producers. We are always looking at what technology we can invest in that will ultimately help us reduce our costs,"

JEREMY COHEN SAYS ACME NO LONGER HAS GLUE APPLICATION AND QUALITY ISSUES AS A RESULT OF INSTALLING THE HHS XCAM VISION AND GLUING SYSTEM.



Cohen says. "One of the things we liked about hhs is that it was something new. We knew where the problems were, we knew what the quality issues were, so we wanted to try something new. 'What was' was no longer okay. Non-contact systems were something new for us."

Acme purchased an hhs non-contact system for the Langston in November 2012 and was so impressed with the system and support that it purchased a second one for the Bobst 924 the following spring. "When it was time to purchase a glue system for the new machine it wasn't much of a decision," Cohen says. "We liked the user interface and the lack of quality issues since installation. Installing the second hhs system was a no brainer."



THE USER INTERFACE ON THE XCAM SYSTEM'S TOUCH SCREEN ENABLES CENTRAL OPERATION.

Acme uses the hhs system to inspect primarily RSCs, HSCs, and FOLs. The system on the Langston is independent from the machine interface. From the touch screen the operators can input the information or retrieve it from a previous job. The operators have been pleased with its overall performance, according to Landman. "We used to have a problem where we would constantly knock the folding rails out of parallel because the old system would just sling glue all the way to the folding

Acme Corrugated Box

rail, but with the hhs system it's so precise that we have actually seen a decrease in issues with the rails jumping because of glue building up in the folding rails. We no longer have that problem," he says.

The hhs system on the 924 is more integrated. "Bobst sends the information for the glue tabs to our glue and inspection for every job," Cohen says. "The beauty of a system like that is that it is transparent. It is also a mirrored installation, which means the operator's side is on the right hand side versus the left, which is not common here in the U.S."

Acme could have continued to use its previous glue system by joining it with a standalone quality system, but instead chose to install the hhs system because of what Landman and Cohen referred to as "innovative technology." Pointing out that corrugated's abrasiveness tends to wear down machine parts; they said they were constantly replacing heads and as a result liked the idea of a non-contact system. "We were on the verge of losing an account when we decided to install hhs because of the gluing application issues on that machine," Cohen says.

As a result of installing the Xcam system, the Langston flexo only had three glue related quality incidents in 2013, resulting in \$553 in customer credits. Landman says customers have noticed a difference in their products. "We had a frustrated customer who would collect bad boxes from poor glue joints. Before, we had no way of going back to recalls. Now with the hhs system we are able to go to recalls and see where the problem started and figure out how and why that happened.

"Customers today don't want to hear that it was operator training or it was this or that," he continues. "They want

to hear what really messed up the box and what you are going to do in the future to prevent it from happening again. With hhs we can now work on this recall analysis. I like systems that I don't have to think about. With hhs you hardly ever have those conversations. I want a machine that is reliable and dependable and that is what we have with hhs."

Landman says he likes the system's touch screen operation. "Working conditions are important. That is one of the considerations you have to take into account when purchasing new equipment — is it going to make it easier for the operators or are they going to have to go climb up on a machine to make an adjustment? Or can he use a touch screen? What's the feedback from it? Is it easy for them to diagnose and troubleshoot? That's what we get with hhs, it's user-friendly."

Future Growth

Acme embraces the principles of Lean manufacturing and a visual workplace. Last year it conducted a comprehensive overview and training for production floor team leaders. A continuous improvement coordinator was also



ACME EMBRACES THE PRINCIPLES OF LEAN MANUFACTURING AND A VISUAL WORKPLACE.

brought on board to assist with this process. "When we bought the 924 we strategically had the operator side face our Martin 1232NT. We mirrored those machines so that we could have one crew run both machine centers. It's an innovation that you will not see in many other plants in the U.S.," Landman says.

Most of the employees are hired from the Philadelphia area. "Finding skilled labor is a challenge," Cohen says. "This is common with most urban areas around the U.S. We need to try to do more with less people. It's just the nature of the business. We look at automation in every facet, whether it's glue detection, gluing system or robots. We try to find what works best for us."

Looking ahead, Cohen says the goal is to grow. "We have some capacity left in this building and we will continue to sell to that capacity. We have some opportunities to improve production with more investments in the future."

Cohen says there are interesting dynamics associated with working in a family business. "There are always generational challenges. My father (Bob) is the President of the company and my older brother, Erik, is in sales. With the three of us having distinctly different roles, we don't bump into each other very often and our relationships, both work and personal stay healthy. We still defer to our father on big decisions based on his vast experience and expertise, not to mention, he's the boss." ■