



High-Quality Yarn Manufacturer Learns to Un-Tangle the Problem

Customer Profile

In 1995, Buhler Yarns was established in Jefferson, GA, as a yarn manufacturer and a supplier to the sheeting industry hubs in Alabama and North Carolina. In reaction to changes in the market and customer demand, Buhler started making knitting yarns with long and extra-long staple cotton, designed for apparel. The company became a licensed “Supima” cotton processor and also began experimenting with innovative new fiber blends.



Antonio Reyes, Livio Sala, Russell Mims, and Jake Marlowe – the team assembled to learn and apply the GaMEP problem solving method at Buhler Quality Yarns.

Situation

As the demand for products made with the softer long-staple cotton and fiber blends grew, Buhler slowly increased their production utilizing equipment and processes that were designed for their original yarns. Although their approach was working, they knew that they were not producing at full-capacity, due to an issue with the bobbins. These bobbins, or spools that hold the yarn during spinning, were falling over and causing the machines to stop until an employee was able to rectify the situation and re-start the machine.

Russell Mims, vice president of operations, was aware of this issue and had been trying to think of solutions when he happened to meet Bill Nusbaum, Northeast Georgia Region Manager for the [Georgia Manufacturing Extension Partnership \(GaMEP\)](http://www.gamep.org), at a GaMEP Manufacturing Growth Meeting in Jefferson.

Solution

Nusbaum visited the plant and after better understanding the problem, recommended that the GaMEP facilitate a problem solving event at the facility, involving a team of employees from various departments across the organization. Mims asked three employees from different departments to participate in the event in addition to himself, Nusbaum, and GaMEP project manager Damon Nix.

After learning a 4-step problem solving method, the team applied each step to observe, brainstorm ideas, prioritize ideas based on a number of different factors, and then create a plan of action. After the event, the team was instructed to systematically try each suggested solution found and report back on their progress.

Within a few weeks, the problem was found to be a system of blowers that rotated around the machinery, removing dust and lint during the spinning process. The blowers were blowing too hard for the weight of the new yarns, causing the yarn ends to blow around, get stuck together, and pull the bobbins over. With a simple adjustment, they were able to solve the problem and create substantial increases in production.



Results

Since beginning their work with the GaMEP, Buhler has:

- Improved production on the three frames that were experiencing the problem by an average of 9.5%
- Saved \$405,000 per year in waste due to lost production (a number which will increase to \$1.2 million this year because the company was able to increase the number of frames producing the higher-quality yarn from three frames to nine)
- Used the same process to evaluate a problem in the winding department, improving efficiency of that process by approximately 16%

Testimonial

“Our work with the GaMEP really helped our team to work together. They helped us solve the problem, but they also taught us a system to solve problems on our own and continue to improve.” — *Russell Mims*



For additional information about GaMEP services, visit www.gamep.org or contact the regional manager in your area.

If you are located outside of Georgia, contact **Derek Woodham, Regional Network Manager**, at derek.woodham@innovate.gatech.edu or 404-895-5237.

- **Augusta Region**
 ELLIOT PRICE
elliott.price@innovate.gatech.edu
 706-721-4522
- **Northeast Region**
 BILL NUSBAUM
bill.nusbaum@innovate.gatech.edu
 770-718-3982
- **Central Region**
 ALAN BARFOOT
alan.barfoot@innovate.gatech.edu
 478-275-5125
- **Northwest Region**
 JOHN ZEGERS
john.zegers@innovate.gatech.edu
 404-435-9124
- **Coastal Region**
 BEN CHEEKS
ben.cheeks@innovate.gatech.edu
 912-571-1902
- **South Region**
 HANK HOBBS
hank.hobbs@innovate.gatech.edu
 912-379-2267
- **East Metro Atlanta Region**
 KELLEY HUNDT
kelley.hundt@innovate.gatech.edu
 770-605-0022
- **South Metro Atlanta Region**
 LARRY ALFORD
larry.alford@innovate.gatech.edu
 404-895-5237
- **North Metro Atlanta Region**
 BILL RITSCH
bill.ritsch@innovate.gatech.edu
 678-294-1579
- **West Region**
 DEREK WOODHAM
derek.woodham@innovate.gatech.edu
 706-298-0069