

SCMEP Success Stories

Helping South Carolina Companies Grow



R.L. Bryan implements Setup Reduction with SCMEP's support Company slashes changeover times nearly in half

RICHLAND, CHARLESTON & GREENVILLE COUNTIES—

Like many businesses, the R.L. Bryan Company wanted to drive out the uneconomical, time-sapping drag called waste. As a printing company with locations in Columbia, Charleston, and Greenville, R.L. Bryan sought the expertise of the South Carolina Manufacturing Extension Partnership (SCMEP), a private, non-profit group that focuses on business improvement.

Once on board, SCMEP performed a free-of-charge Competitiveness Review, suggesting a few takeaways. One was Setup Reduction, a Lean manufacturing tool that systematically diminishes or ultimately gets rid of the time required to set up or changeover for a job. R.L. Bryan decided to try the process on its highest-volume, highest-cost device: the company's 7-color sheet fed press. And in the end, R.L. Bryan came away with a takeaway of its own. The company managed to reduce its changeover times anywhere from 36 to 49 percent with use of the technique.

"We've got a standard now, a way of doing things the same way every time," says Bruce Vander Heide, Senior Vice President with the company. "And every day our production team is thinking about improvement."

A storied company

R.L. Bryan's Company's roots date to 1844, as it was begun as a book and stationary store serving the Columbia area. Forty years later, the company bought its first printing machine and performed its first print job for the University of South Carolina. R.L. Bryan moved to its current Greystone Boulevard location in Columbia in 1969, where the printing division continued expansion efforts. A heat set half web press was installed 18 years ago, complementing the company's Heidelberg machines.

More recently, the company sold its office furniture division to focus on diversifying and expanding existing divisions. The company has always supported education, and it continues to maintain sheet fed and web press

commercial printing with in-house binding capabilities, while expanding its warehouse and fulfillment capabilities to anyone needing JIT inventory management to save holding costs and increase inventory turns.

Only then can a company stay competitive. "It doesn't matter how good we are today, if we're the worst or best," Vander Heide says. "It's about making improvements. If we change one small thing for the better, it makes all our jobs easier and many small changes result in big improvement over time."

Benefits of SMED

Setup Reduction is also known as Single-Minute Exchange of Die (SMED), which facilitates quick changeover in operations, or cost-effective ways of making the current product to making the next product.

Thanks to SMED, the shop floor reaps several benefits, including:

- Lot-size reduction
- Inventory decreases
- Elimination of scrap
- Cuts in labor costs
- Improved capacity on bottleneck equipment
- Better quality of products
- Minimization of obsolescence

R.L. Bryan sought to quicken its workflow by removing needless, time-consuming actions from its pressroom. SMED, in short, calls for the separation of internal operations from external operations. For R.L. Bryan, that meant striking repetitive movements, including rotations from the presses to the tool station to the work bench. Congestion is the calling card of inefficiency. "While the press is running, we are making money," says Jeff Underhill, a pressman at R.L. Bryan. "So our objective is to keep the machine running and minimize downtime."

SCMEP helped R.L. Bryan chart a map of the pressroom floor to pinpoint areas for improvement. They considered all stages of the printing process: preparation/pre-staging, tooling modifications, resequencing and machine modifications. "The most valuable thing we learned from the project was identifying our problem areas," Underhill says. "The theory was 'internal and external' to convert as many steps as possible from the internal to the external."

Following SMED, R.L. Bryan documented its changeover jobs involving the 7-color sheetfed press. During one transition, the company chopped nearly 20 minutes from its former time. On another job, the company slashed nearly 13 minutes from its pre-SMED time. "We had been standoffish with continuous improvement measures, and (Setup Reduction) helped people understand some of

the good things CI brings. It really opened people's eyes," Vander Heide says. At the same time, SMED served to help R.L. Bryan begin redefining its company's culture to one of continuous improvement. "We're not there yet," Vander Heide says. "But it's a step in that direction."

Creating leverage

It's simple, actually. Wasted energy equals wasted time, and now it takes R.L. Bryan "less time to run the same job than it once did," Vander Heide concedes. Plus, a partnership with SCMEP gives R.L. Bryan leverage, allowing the company to move forward with sustained confidence. "SCMEP is a great resource for anything you're doing from a manufacturing standpoint," Vander Heide says. "They either know a solution or know who to talk to. When I have a question, SCMEP can connect me to someone to find answers."