

Iowa Spring Improves Productivity and Increases Profitability

It all started with a simple phone call several years ago from Iowa Spring to CIRAS asking for assistance with the plant layout of a second manufacturing facility.

Since 1977, Iowa Spring has been engineering, producing, and delivering springs for various agricultural equipment, construction machinery, overhead garage doors, and appliance industries worldwide. Iowa Spring is owned and operated by their original founders in Adel, Iowa.

Iowa Spring opened a garage door spring division, Southern Atlantic Spring, in 2007. "This was the catalyst for us to come to CIRAS for assistance with plant layout simulations," explains Brian Setchell, vice president of operations and 32-year veteran at Iowa Spring.

With the success of the plant layout simulation project, soon CIRAS was assisting Iowa Spring with many other facets of their business. "They are a very proactive and innovative group, and they welcome the assistance and resources we provide," explains Derek Thompson, the account manager working with Iowa Spring.

Cost-Saving and Quality-Control Services

Recently, Iowa Spring received a customer inquiry regarding their spring cycle life. CIRAS enlisted the help of the Institute for Physical Research and Technology's nondestructive evaluation group, who performed spring cycle testing via nondestructive evaluation.

CIRAS also connected Iowa Spring with Iowa State's Industrial Assessment Center. They conducted an energy audit with a recommendation to switch the type of lighting utilized in the plant. This resulted in a 40 percent reduction in light energy costs, a rebate from MidAmerican Energy, and a brighter light source illuminating the plant floor.

Theory of Constraints Project Results in Big Outcomes

The most intensive assistance provided by CIRAS is a project that started a little more than a year ago. Iowa Spring recognized the need to increase throughput in order to stay competitive. The paint production area of the plant was continually working overtime, and they couldn't get



enough product out the door. A new paint line was being considered, but before Iowa Spring made that investment they wanted some outside assistance and perspective.

Mike Willett, a CIRAS project manager, was consulted to provide a company-wide workshop on Theory of Constraints (TOC) concepts followed by a business improvement generation project. Theory of Constraints is a management philosophy geared toward increasing profits. The theory is that only a few factors in a business limit the achievement of the business toward its goals.

Constraints within the paint production area were identified and several ideas were generated that Iowa Spring could immediately apply, thus eliminating the need to invest in a new paint line.

These TOC improvements were so positive that six months later Iowa Spring had CIRAS assist with a full TOC implementation project. The goal of this project was to change the way employees think about the business and to develop new measurements to track company performance.

Overall, these TOC projects identified what to change, what to change to, and how to cause the change. The management at Iowa Spring is still working through the final stages of the implementation plan, but they have already recognized \$300,000 to \$500,000 annually in increased sales, realized a 10 percent labor and scrap level savings in the garage door line, and hired 10 additional employees. They also had a significant increase in inventory investment and project implementation.

"CIRAS provided us with the experienced outside perspective we were after," says Setchell. "The CIRAS team helped us focus our efforts to improve the business and throughput in the current challenging market environment."

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