Over 10 years and counting

In a relationship that started more than 10 years ago, American Athletic Inc. (AAI) continues to work with CIRAS on projects that help the company maintain its position as an industry leader, satisfy its customers, and expand into new markets.

AAI manufactures champion-caliber sporting equipment in Jefferson, Iowa. Known primarily for its gymnastic equipment, the company also offers a full line of basketball and volleyball equipment as well as portable basketball hoops under the Spalding® brand. With so much variety in its products, AAI has been a unique client for CIRAS. From product testing components to helping create an employee safety program, AAI has found a great deal of support through CIRAS and CIRAS partners.

Product testing

Todd Reinders, an engineer at AAI, has worked with CIRAS on projects that involve testing several pieces of the company’s athletic equipment. “We don’t have the capacity on-site for detailed testing, so a majority of these projects are taken to Iowa State’s campus and tested in the Structural Engineering Lab,” he explains. “In a few cases, they have had to conduct the testing at AAI because of the physical size of the products we are working with.” Those products have included brackets, hangers, basketball rims, and gymnastic equipment. In one case, AAI needed to redesign one of its floor anchors to increase load capacity. After field tests confirmed the product required this increase, AAI turned to CIRAS to validate the design with fatigue testing. “Working with CIRAS, we were able to develop a test plan that ensured the design criteria were met,” Reinders says.

Plant layout simulation

Within the steel fabrication side of AAI’s business, the company faces numerous layout and product flow challenges. After coming up with several good product flow options, AAI needed to quantify its ideas to establish potential cost savings. CIRAS uses FactoryFLOW to educate Iowa manufacturers on the use of plant layout simulation software. The company provides CIRAS with a CAD drawing of the facility along with work center locations, product flow data, and material handling information. CIRAS staff then use FactoryFLOW to evaluate product flow of the baseline plant layout and alternative options. The data from the FactoryFLOW simulation assisted AAI in deciding which product flow options would work best for its steel fabrication area.

Workforce training

CIRAS has also worked with AAI to help employees build knowledge. In 2007, CIRAS utilized its partnership with the Safety Training and Industrial Research Center to develop an AAI employee safety program. Working with Iowa State’s safety specialists, AAI employees learned how to make changes to more safely achieve operational targets and implement improvements.
Additionally, CIRAS hosted initiatives to advance AAI’s metal fabrication process through a collaborative partnership with Iowa Central Community College. Weld quality specialists at Iowa Central provided AAI’s employees with training that enhanced their skills and quality systems. Iowa Central also worked with AAI to develop a lean value stream map for the company, which is an analysis of the flow of materials and information required to bring a product or service to a consumer. As a result, AAI has incorporated several lean production processes into its facilities.

**A mutually beneficial partnership**

AAI values the information CIRAS has provided throughout their relationship. “When we have our products tested through CIRAS, we are getting important data that can help demonstrate the quality of our products,” says Reinders. “Working with them is great because they want companies to succeed and are more than a service provider. We work together on coming up with the best solutions for our problems, and they have provided a number of resources for so many of our projects.”

In the past, three employees from the company have given input to CIRAS operations as members of the CIRAS Advisory Council, and AAI is willing to continue to provide support to CIRAS. With such a balanced partnership, the two organizations are sure to continue flourishing for years to come.

*Your local CIRAS account manager can quickly connect you with the people and programs at Iowa State University that can solve your problem. For more information, please contact Derek Thompson at 515-419-2163 or thompson@iastate.edu*