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—Allen Gager
Design Engineer and CAD
Manager
A.T. Ferrell Company Inc.

Going Against the Grain

A.T. Ferrell Leads the Way in Smart, Solid Design.

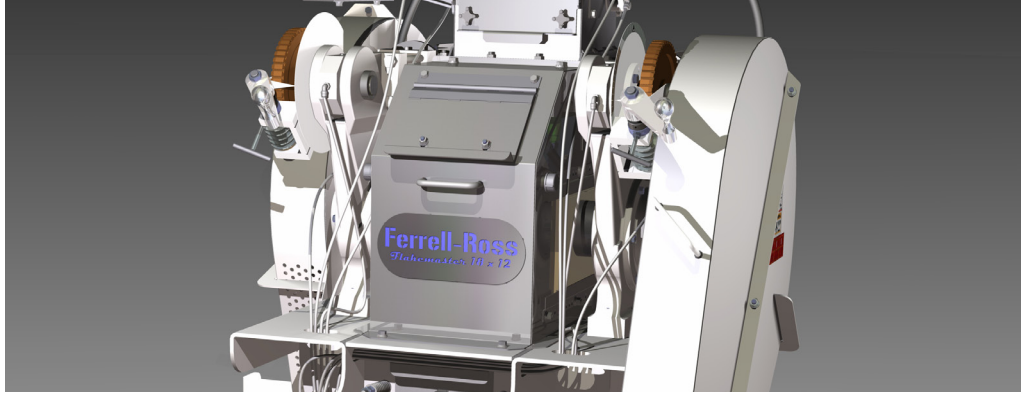


Image courtesy of A.T. Ferrell Company.

Project Summary

Indiana-based A.T. Ferrell Company Inc. has been serving the agricultural, food, and industrial markets since 1869, and it is the parent company of Ferrell–Ross Materials Processing & Recovery, Clipper Separation Technologies and Mix–Mill/Farmatic Feed Processing Systems. It is the most widely-known manufacturer of roller, flaking, and cracking mills worldwide, boasting an impressive client list that includes Kellogg and Quaker Oats.

Currently, A.T. Ferrell Design Engineer and CAD Manager Allen Gager is working on a new high-capacity cracking mill. His team is using Autodesk® Inventor® software and its Digital Prototyping technology to explore a number of design possibilities. It is also using Autodesk® Vault Workgroup to keep track of proven designs. Armed with these solutions, it is able to:

- Accelerate the development of competitive products
- Validate design ideas cost-effectively and help eliminate errors
- Improve communication with customers and other decision-makers

The Challenge

According to Gager, when it comes to meeting clients' demands, performance is critical. With livestock prices falling and grain costs rising, it is more important than ever that A.T. Ferrell's machinery helps its clients maximize their margins. "Our products are engineered to be reliable and perform year after year," adds Gager. "One of the challenges we face is to deliver higher capacity machines while maintaining close tolerances, high standards, and overall consistency."

The Solution

Autodesk Inventor software and Autodesk Vault Workgroup allow A.T. Ferrell's designers to focus on the engineering and design aspects of their products and on improving them.

"It's our competitive edge," says Gager. "We have a talented group of designers and engineers using the right tools in order to produce better products."

Since moving to 3D and Inventor software, the need for prototypes has been reduced considerably. Gager says the company no longer has to cut metal to prove the feasibility of a design, improving its ability to reuse designs and components. In a recent project, designers were able to identify a problem, test the existing design, and develop a new design all in one day.

For the high capacity cracking mill, A.T. Ferrell will design the machine in Autodesk Inventor based on core parametric equations, which will allow it to generate the next versions in the sizes ordered by the clients. An entire family of machines will be generated with very little effort, complete with documentation.

The Result

"Digital prototyping is playing a major role in getting the cracking mill and other products on the market and in meeting the challenges of our clients' needs," says Gager. "It would be safe to say the design cycle of these projects is cut in half as a result of working in 3D."

As for Autodesk Vault Workgroup, keeping track of designs is now a far easier task. "I sometimes wonder how we ever got along without it," adds Gager.

For more information on Autodesk software, visit www.autodesk.com/manufacturing.