# Ardent Mills embraces automation to enhance safety and efficiency



Ardent Mills, the largest grain milling company in the United States, has been making significant strides in automating its operations and enhancing product safety. Founded in 2014 through a joint venture comprising ConAgra Foods, Cargill, and CHS, Ardent Mills maintains a vast national presence with over 40 locations across the U.S., Canada, and Puerto Rico, producing various products including flour, quinoa, and gluten-free items. The company is deeply grounded in local partnerships, supporting thousands of jobs and contributing billions to local economies.

To maintain its commitment to quality and safety, Ardent Mills has integrated advanced technologies into its operations, particularly with the deployment of Fortress automated testing systems. This transition has proven to be crucial for efficiency and safety, particularly in their mills located in Hastings, Minnesota; Ogden, Utah; and Saginaw, Texas. According to Packaging Engineer Manvine Bharj, the integration of these digitised food safety tools has been pivotal, with the company processing approximately 22.4 million bags of milled products annually.

Bharj noted that with the implementation of automatic testing on six inline conveyor packaging lines, the company has vastly improved both safety measures and operational efficiency. Automated solutions like the Halo and Contact 4.0 systems are designed to mitigate potential issues, protect team members, and enhance overall customer service. Highlighting the rigorous standards Ardent Mills adheres to, Bharj stated, “We intentionally test our inspection equipment more often than our customers’ conformance requirements stipulate, as it provides extra quality assurance and fills us with confidence that our products are the safest they can be.”

The automated testing systems function by simulating the disturbance that a test contaminant would cause, improving the accuracy and reliability of metal detection without depending on manual processes. Fortress Service Manager Ryan Ramdass elaborated on the challenges of manual testing, explaining that replicating a test accurately was a cumbersome task requiring considerable time and may have resulted in waste. Ardent Mills approached Fortress with a request for a blue light system to indicate when a Halo test is in progress, which has resulted in significant reductions in unnecessary labour and waste.

Bharj explained that without the visual indicator, operators would err on the side of caution and assume potential contamination, leading to extensive re-inspection processes. The introduction of this feature has alleviated a heavy burden on operational demands. The benefits of the automated testing are reflected in the reduced time it takes for tests; what used to take 10 to 15 minutes now only requires halting the production line in the event of a failure, thereby enhancing productivity.

To complement the automated testing, Ardent Mills has also implemented Fortress Technology’s Contact 4.0 system, which digitises the documentation process. This web-based network enables quality assurance managers to remotely monitor equipment performance and streamline reporting processes. Bharj remarked, “Our quality managers loved Contact 4.0 as soon as it was implemented,” highlighting its role in reducing human error and ensuring compliance.

The internal changes at Ardent Mills are fostering a culture of trust and collaborative problem-solving among team members. Bharj noted the positive impact of services provided by Fortress, including training and support, which enable staff to troubleshoot issues independently.

With plans to expand the application of these innovative technologies across additional facilities, Ardent Mills is positioning itself at the forefront of the milling industry’s digital transformation. Bharj acknowledged the significance of this shift, stating, “Acquiring specialist assets remains a key part of Ardent’s safety strategy.” The use of such technologies not only enhances operational efficiency but also reinforces the company's commitment to delivering safe and nutritious food products to communities.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

* <https://www.ardentmills.com/about/> - Corroborates Ardent Mills' founding, its role as a premier flour-milling and ingredient company, and its presence in over 40 locations across the U.S., Canada, and Puerto Rico.
* <https://www.ardentmills.com/about/history/> - Provides details on the history of Ardent Mills, including its formation through a joint venture between ConAgra Foods, Cargill, and CHS in 2014.
* <https://www.interstates.com/project-experience/ardent-mills-project> - Supports the integration of advanced technologies and automation in Ardent Mills' operations, including data collection and analytics to improve efficiency and product quality.
* <https://www.plantengineering.com/articles/how-data-is-making-a-flour-mill-run-smarter-and-leaner/> - Details the use of automation, data integration, and advanced hardware to make Ardent Mills' operations smarter and leaner, including real-time data collection and predictive maintenance.
* <https://www.ardentmills.com/about/> - Highlights Ardent Mills' commitment to local partnerships, supporting thousands of jobs, and contributing to local economies.
* <https://www.plantengineering.com/articles/how-data-is-making-a-flour-mill-run-smarter-and-leaner/> - Explains the implementation of advanced technologies to enhance product safety and operational efficiency, such as real-time quality analysis and predictive maintenance.
* <https://www.interstates.com/project-experience/ardent-mills-project> - Describes the installation of I-Control software and other solutions to provide track and trace capabilities, lot tracking, and deep integration with supplied equipment.
* <https://www.plantengineering.com/articles/how-data-is-making-a-flour-mill-run-smarter-and-leaner/> - Details the benefits of automated systems, including reduced manual data recording, improved product quality, and enhanced customer service.
* <https://www.ardentmills.com/about/history/> - Provides context on Ardent Mills' strategic growth and innovation initiatives, such as the opening of new facilities and the introduction of new products.
* <https://www.interstates.com/project-experience/ardent-mills-project> - Corroborates the collaboration between Ardent Mills and Interstates to ensure network stability and handle interconnected devices and plant floor devices.
* <https://www.plantengineering.com/articles/how-data-is-making-a-flour-mill-run-smarter-and-leaner/> - Highlights the use of analytics and data collection to predict failures, ensure product quality, and streamline production processes at Ardent Mills.
* <https://www.foodengineeringmag.com/articles/102796-ardent-mills-blends-technology-with-tradition> - Please view link - unable to able to access data