POWERING POTATO PRODUCTIVITY

WINDEMULLER

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CUSTOMER
Kitchen Farms

LOCATION
Elmira, Michigan

CONTRACT BUDGET
$125,000

START DATE
November 2022

COMPLETION DATE
February 2023

SERVICES
Automation, HMI/SCADA Programming,
PLC Design & Programming,
Process Controls & Integration

SUMMARY

Kitchen Farms in Elmira, Michigan has been growing, bagging, and shipping potatoes since 1909. After a destructive fire in 2021 impacted the fourth-generation plant and processing facility, the organization saw a chance to not only rebuild, but also move forward with a new and enhanced operation. Kitchen Farms was ready to create a state-of-the-art facility that would embody advanced technologies to take them well into the future.

Windemuller's Automation group unified the control systems of several machines into one centrally controlled and monitored system. The team completed all programming and integrated more than 250 motors and conveyors, taking into consideration energy-efficient practices to enhance overall productivity and reduce waste. The design of the reconstructed facility focused on scalability, anticipating future growth and evolving production needs.

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CHALLENGE

At the core of the rebuilding effort was the dedication to increased efficiency. The plant previously had a disjointed system, with separate lines that did not communicate with each other. Bottlenecks in the production process would frequently occur when one line would stop and others continued, resulting in disruption and downtime.

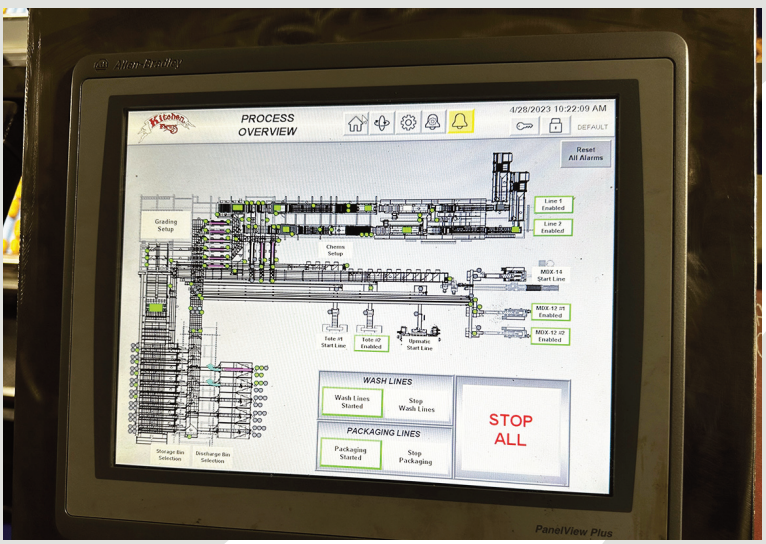
SOLUTION

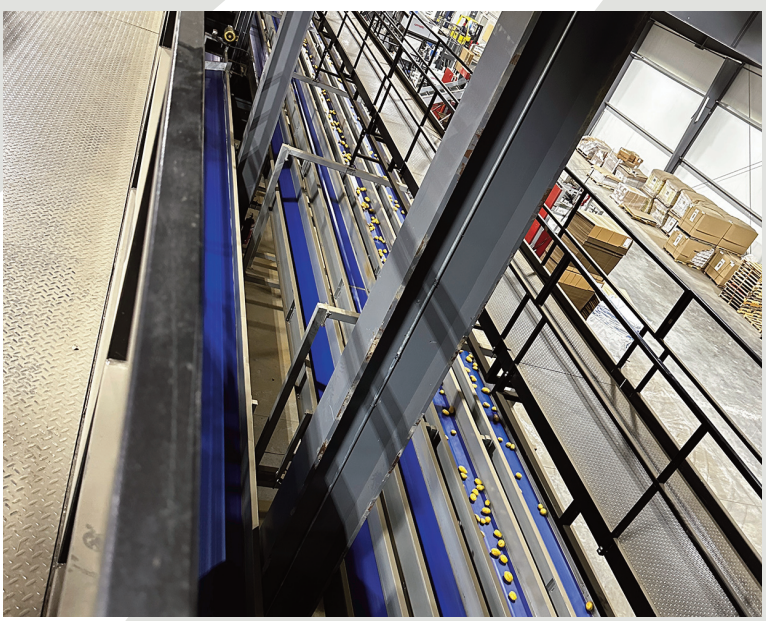
Windemuller integrated new automation systems throughout the entire plant to ensure smooth coordination and efficient operations. This involved setting up an interconnected control network to enable seamless communication among various components.

Significant improvement was achieved through the implementation of an automatic sequenced start/stop mechanism. This allowed various equipment and machinery to initiate and conclude their operations based on predefined conditions. This optimized energy consumption while minimizing labor-intensive blockages and backups when machine alarms or manual stoppages occurred.

Plant operations now incorporate real-time centralized-alarming and diagnostics. Whenever a problem occurs, the centralized system immediately alerts personnel, facilitating rapid diagnosis and repair.

Overall, the rebuilt plant was designed with scalability in mind, enabling expansion and adjustments to accommodate higher production capacities. Utilizing these advanced technologies and interconnected systems ensures that the facility is now poised for future growth. Kitchen Farms is a true phoenix rising from the ashes!





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