

IOWA STATE UNIVERSITY STUDENTS DRIVE \$3.1 MILLION IN IMPROVEMENTS FOR NESTLÉ PURINA

ABOUT NESTLE PURINA PETCARE CO. Nestlé Purina is a manufacturer of dog and cat food and treats located in Clinton, Iowa.

THE CHALLENGE. There was a problematic small packaging line. Bags filled with dog and cat food were tipping over, resulting in production stoppages and wasted products.

MEP CENTER'S ROLE. CIRAS, part of the MEP National Network™, facilitates capstone projects with students and Iowa industry in areas like product design, machine design, process improvement and modeling, plant layout, new concept exploration, or data analytics. Students can access Iowa State labs and expertise of faculty as well. By working through a capstone project with CIRAS additional technical resources are available to businesses as well as access to our innovative students at Iowa State University. Through this capstone project, the Industrial Manufacturing and Systems Engineering (IMSE) program, reviewed the problems and the students recommended changing the height of a platform and adding a support arm to prevent bags from tipping over and stopping the line. The team's recommendations reinforced the Nestle Purina mission to care for its team by suggesting a guard around the filler to improve safety. Additional recommendations included collecting data on centerline runs to determine optimal operational settings, adjusting some conveyor joints where the bags were getting stuck, and angling a conveyor flat plate to help avoid bag "beaching".

"We implemented the students' ideas from the small bag line project, including guarding changes recommended for team safety. Their fresh perspective is making our operations run more efficiently."

-Justin Wilkinson, Factory Manager

RESULTS



\$,100,000 impact for capacity and reduced product loss



Change of height of a platform & adding a support arm



Guard around the filler to improve safety

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