

Robot Cuts Costs, Increases Efficiency

Big J Milling Co. pleased with packing performance of Columbia/Okura product

When asked how his Columbia/Okura Robot is performing, Big Milling Co. President John Reese jokingly remarks, "It puts in a 24-hour day, it doesn't get sick, and it always shows up on time."

Of course, robots will always have an edge over human employees when it comes to issues such as endurance and reliability.

But perhaps the most important reason Big J Milling, Brigham City, UT (435-723-3459), is sold on the Columbia/Okura robotic system, besides its efficient performance in stacking flour bags, is that it doesn't receive a paycheck or medical benefits.

"The robot allowed us to reduce our labor costs," Reese says. "We were able to cut our workforce by three (one packer

CASE STUDY

per shift)."

How It Works

Distributed by Bratney Companies, Inc., Des Moines, IA (800-247-675), the Columbia/Okura (360-735-1952/www.columbiaokura.com) robotic systems can stack bags weighing up to 100 pounds in an overlapping bag pattern at a rate of up to 1,600 cycles per hour.

The systems are capable of handling a wide variety of bag types and sizes and can be integrated with metal detectors, check weighers, and bag flat-teners.

Microsoft Windows-based programming software is used to dictate packing rate, pallet patterns, bag sizes, etc.

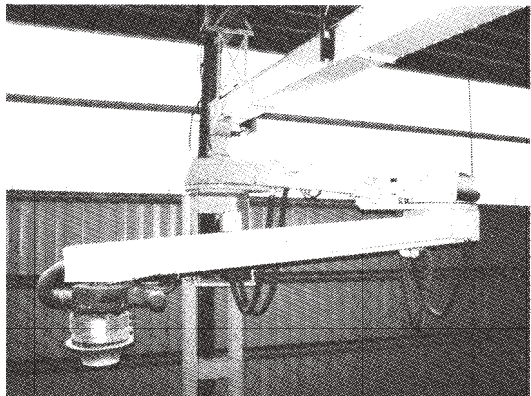
Reese notes that Vancouver, WA-based Columbia/Okura offers three robot sizes.

Big J Milling, a 2,000-cwt.-per-day mill that processes hard wheats, uses Columbia/Okura's smallest robot, which

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is set to pack 10 bags per minute, he says.

At Big J Milling, the flour bag goes through a bag flattener, which helps provide uniformity. It then is moved by a roll conveyor and stops in front of the robot, which grabs the bag and stacks it on a pallet, Reese says.

"Sometimes the packing machine can't keep up with the robot, because it's so fast," says mill supervisor Jeremy Bischoff.

"The robot allowed us to reduce our labor costs. We were able to cut our workforce by three."

John Reese, Big J Milling president

Bischoff said the the only problems with the robot have stemmed from operator errors and the machine has only needed routine maintenance since it was purchased two years ago.

"We've had to grease it a few times and that's about it," he says.

Reese adds that the computer program that operates the robot is simple and user-friendly.

"To put in the program for the size of bags you want to use only takes about 30 seconds," Reese says.

Bischoff says the computer programs were set by Columbia/Okura before the robot was installed in the mill. However, employees can adjust the program to meet their specific needs.

A Big Decision

Reese says the company spent about



The Columbia/Okura robot in Big J Milling's Brigham, UT facility packs 10 flour bags per minute onto a pallet.

two years doing their homework on robotic systems to make sure that replacing human workers with a robot would be cost-effective and more efficient.

Before purchasing the system, Reese and his two son-in-laws who work in the 87-year-old, family-owned mill, visited the Columbia/Okura plant for a demonstration.

Impressed by what they saw, the decision boiled down to several important factors, he says.

"It helps us cut our labor costs, it elimi-

nates injury problems associated with employees lifting bags, and the robot fits perfectly into the area its located," Reese says.

He adds that, since the robot has been employed, the number of broken flour bags has decreased.

Reese says the company still uses one employee in the packing area per shift to move full pallets that have been loaded by the robot to the warehouse.

Arvin Donley, editor

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