

Case Study

INCREASING THROUGHPUT WITHOUT SACRIFICING FLEXIBILITY:

How a standardized case packing solution increased throughput without sacrificing flexibility.

The Future of Automation



In consumer products, success starts as a slow build but at a certain point, it hits hard and fast. In the former, firms can re-task workers to accommodate the growing demand and perhaps bring on part-timers that slowly turn to full time employees. When the firm experiences rapid growth from national chains or finding itself with unexpected global demand, the incremental improvements just can't keep up. That's when automation can make a difference.

The Challenge

A company that was experiencing just this sort of growth inquired about what could be done to improve their packaging process. Their demand had started to hockey stick and it became clear that human packing for that line just couldn't keep pace. There wasn't enough space to have enough people to pack the quantities needed, while finding and retaining workers was becoming harder and harder in their local area.

To add more complexity to the situation, the company's packaging line operates on a number of differently sized products and case sizes. That line's product mix needs to dynamically change according to demand. Human workers can easily make adjustments to the changing package runs and case quantities, but the new solution would have to be able to handle these changes, as well.

The Solution

MWES looked to one of its high speed robotic case packing cells to address the demands the customer was experiencing. Leveraging quick robotics and cutting edge technology in a bulletproof, standardized system, MWES was able to provide an essentially drop-in case packing solution that could do more than just compete with how the customer was currently operating. The automation system could provide even greater performance with less reliance on humans, positioning the firm well for further growth.

Drop in Performance

The MWES solution is designed and built as a stand-alone unit to make installation as quick and easy as possible. Every component it needs to operate is enclosed within its rugged frame. This all-inclusive design allows for the placement of the machine with a standard forklift. It also creates a compact footprint that can fit within the area most manual packaging processes take up.

With everything installed inside the frame, the system required only power, air and an Ethernet connection after it was bolted into position. With such little process in the way of setup, MWES was able to get the system running in just over a day.

Multiple sizes/pack styles

To accommodate the different sizes and case configurations, MWES relied upon the customer modifiable programming the case packing system runs. The machine's software can be changed by operators using the provided HMI to set up the system for the next production run. This flexibility was able to easily accommodate the product and case sizes the production line needed to operate on.



The Benefit

MWES case packer system impressed the customer in a number of ways. In terms of performance, the standard MWES system can package up to 160 packages per minute in its three robot configuration. What that performance gives is a break to 3-4 workers, allowing a valuable component of the company's workforce to be put onto more meaningful tasks. More importantly, the machine's performance easily handles the throughput necessary to satisfy the quickly growing demand.

The system's handling of a number of package sizes and case patterns proved to have the flexibility necessary to operate as required. With its built in ease of configurability, it allowed unskilled operators to change the machine's configuration as needed on the production line. This ability rivals the speed at which a manual line takes to be changed over while allowing for easy addition of new products and case packing patterns in the future.

One of the unexpected ways the customer was impressed was by the speed at which the system was up and running in their facility. The standardized system was delivered and installed in a very short timeline due to its standardized nature and self-contained design. This minimized the downtime between making room for the system and seeing production gains to a few days rather than weeks for custom automation systems.

Looking toward the future, the case packing system represents an inroads to expanding the firm's packaging automation capabilities. Should the firm's demand continue to rise at its current pace, the company will already have a critical component in place to build from. With the case packer already installed, adding other automated operations, like case erecting and palletizing, can now be incremental costs over time rather than making the decision to make a large up-front investment in a complete packaging automation system.

Learn more

Current packaging processes causing bottlenecks? Contact us to learn more about our standard case packing machines and other packaging automation solutions that can increase throughput and efficiency.