

Case Study

INCREASING THROUGHPUT WITH TURNKEY DE-PALLETIZING:

How a robotic de-palletizer reduced
incoming materials bottlenecks
while reducing worker burnout.

The Future of Automation



Routing shipments is a complex task. That complexity happens long before picking items to ship. It first happens when full pallets of products are delivered. These pallets usually need to have their payloads separated by layer. That process allows the products to be moved to the appropriate picking area.

For smaller firms, the de-palletizing is usually done by hand. Two to three workers are used to move the products individually to conveyors or other pallets for further routing. That situation can be effective until volumes and package weights eclipse the abilities of human material handlers.

The Challenge

MWES was approached by a customer who needed to increase de-palletizing process efficiency. For the customer, demand was growing quickly and the palletized incoming products were not the lightest. Using human workers to move the heavy packages could lead to issues of strain or worse. Even with three workers, the speed needed couldn't be counted on as the package weights take their toll on the endurance of the staff. Automation was becoming a necessity.



The Solution

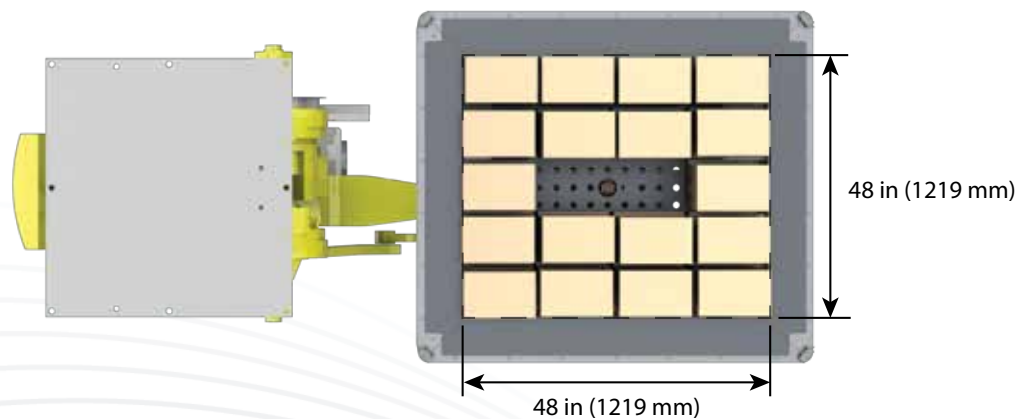
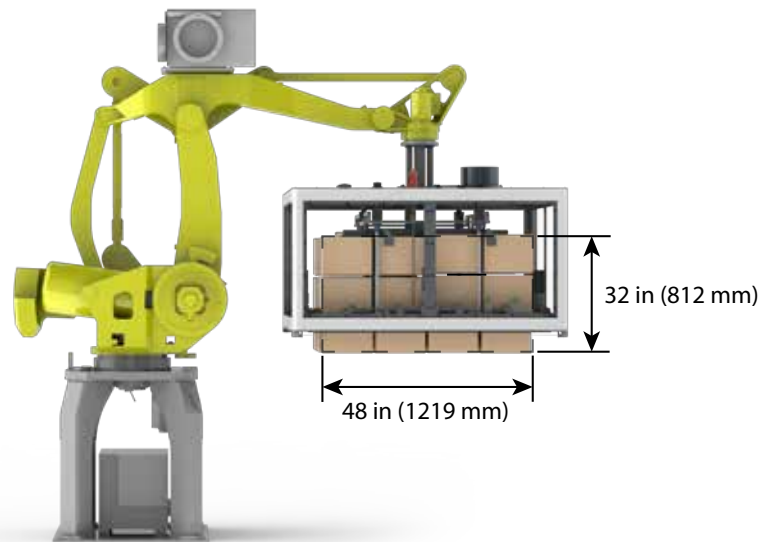
To the rescue was a MWES standard de-palletizer system. Using an industrial robot at its core, the company was able to supply a fully automated system to the firm in less than four months. MWES' cell comes with an in-house designed de-layering system that is purpose design to disassemble a pallet layer by layer, as long as the layer weight is less than 500 lbs. and has a layer height over two inches.

The MWES system can be programmed to operate on a variety of different layer configurations. Changes to de-layering setup can be handled by simply scanning a barcode as the pallet arrives in the cell.

The Benefit

Once operational, the results were immediate. The MWES robotic palletizer system can completely remove and place a pallet layer in about 30 seconds. The system could delay an eight layer pallet in just under 5 minutes. That speed allowed the facility to see a nearly 33% increase in unloading pallets.

Due to the increase in performance from the system and its dependability, the company was able to move the two full time human unloaders to higher value tasks instead of wearing them down unloading pallets. The company was also able to see improvement in shipping and receiving tasks, as it did not require the part time use of one of the receiving workers to keep de-palletizer numbers up.



Learn more

MWES' de-palletizing systems are designed to work on a number of pallet and product configurations under a variety of conditions. Contact Midwest Engineered Systems today to learn how our standard de-palletizing cells can increase your throughput.