Cost Effective Solution for Stacking Empty Pallets in Full Case Picking Modules

A customer of Automation Plus, a Division of CSF Incorporated in Stoughton, WI came to them with a problem. They needed a solution for stacking empty pallets in their full case picking modules that was both ergonomic for the picker and more efficient for the fork truck driver.

**Objectives:**

- Create an ergonomic device to reduce the stresses of stacking empty pallets.
- Eliminate the amount of time required for fork truck drivers to rework pallet stacks.
- Design to mount on pallet flow rails in order to be retrofitted into any picking module.
- Accommodate 7 empty pallets per load.
- No external source of energy required. (Electricity or compressed air)
- Heavy duty to withstand many years of use.

**The Solution:**

The Pallet Return Device incorporates an ergonomic lifting method that reduces the stresses of stacking empty pallets for the picker and at the same time, squares up every pallet that is lifted into the device, making a 'perfect' stack. The PRD is mounted to existing pallet flow rails and uses no electricity or compressed air. Each unit is made from heavy gauge, powder coated steel.

**Features and Benefits**

- Ergonomic design, improves worker safety
- Unit makes a 'perfect' stack, improves efficiency
- Time savings of 2-4 minutes each time a stack is removed
- Return on investment of approximately 1.28 years
The Results:

The Pallet Return Device's ergonomic lifting method reduces worker fatigue and risks of developing musculoskeletal disorders. Since each stack is made ‘perfect’, a noticeable time savings was achieved, as much as 2-4 minutes each time a stack was pulled from the picking module.

The PRD was retrofitted in 200 empty pallet return lanes, thus saving the customer a considerable amount of capital that may have been needed to reconstruct new picking modules to incorporate another method or device. An unforeseen benefit that resulted from the PRD was that the risks of pallet stacks getting hung up on rack frames, causing pallets to fall from various heights to the floor below, was eliminated. The customer had this to say,

“There is an ergonomic impact to the picker, reduced time for them to build the perfect stack and reduced time for the forklift operator to pull the stack down. No one will have to worry about twisted or bad stacks getting hung up on the rack frames, eliminating a possible risk or tie off requirement. There is an added safety factor to all those below because the movement of the stack out to the edge is controlled as opposed to being gravity (or pushed) and coming to an abrupt stop.”

Based on projected numbers for time savings only, the PRD units have a return on investment of approximately 1.28 years.

Automation Plus, a Division of CSF Incorporated
810 US HWY 51 East
Stoughton, WI 53589
608-205-1855
sales@csfincorporated.com
www.palletreturndevice.com