

Prepared For :
Eaton Corporation

The logo for ASE systems is centered in the upper half of the page. It features the letters 'ASE' in a large, white, sans-serif font, with the word 'systems' in a smaller, white, lowercase sans-serif font directly below it. The text is set against a circular gradient background that transitions from a light blue at the top to a darker blue at the bottom. This circle is surrounded by a larger, teal-colored circular shape that has a white, curved cutout on its right side, creating a dynamic, layered effect.

ASE
systems

Case Study

REPETITIVE LIFTING OF BOXED
BATTERIES FOR PALLETIZING

Load Specifications

- Batteries in corrugated boxes
- Weight: Up to 170-lbs.
- Size: (LWH) 37.5" X 23.5" X 20"

Application Analysis

Key Points:

- Pick up point: From a pallet, stacked to 42"
- Travel: 12'-14'
- Rotation: None
- Ceiling Height: 30' clear
- Cycle Time: 24 per hour

Handling Issues

Job was being performed manually using two workers causing work related fatigue and back strain issues, especially when reaching down to pick up boxes on the lower rows of the pallets. The customer's goal was to double the number of boxes currently being handled and to reduce the number of workers on this task to 1 so the other could be reassigned to another task in the facility.

The Solution

ASE Systems recommended a lift assist solution consisting of a Workstation Jib Crane which delivers a high ergonomic value when moving loads from point A to point B in combination with a Vacuum Tube Lifter designed to grip and lift the corrugated boxes. The Jib crane allowed for the coverage needed to access all of the pallets in the operating area. The vacuum tube lifter consists of a high-volume vacuum pump which typically sits near the base of the jib crane, a vacuum lift tube and the control head w/ vacuum cup assembly. Vacuum Tube (VT systems) are ideally suited for lifting corrugated boxes or any materials that are semi-porous or porous. VT systems are well suited for high-speed pick and place applications such as palletizing, sorting and production operations. Eaton was able to increase their productivity by not only doubling their lifts per hour but they were also able to accomplish this handling task with only one operator. In addition, the vacuum tube system eliminated the possibility of repetitive worker injuries associated with the handling task.



281-256-7450

Key Technologies

- Workstation Jib Crane
 - <https://www.asesystem.com/workstation-cranes/jib-cranes/>
- Vacuum Tube Lifter
 - <https://www.asesystem.com/vacuum-lifters/vacuum-tube-lifter/>

