

Packaging Relocation & Process Improvement

Background

Advent Design was contacted by a toy company and asked to submit a proposal for relocating the company's eleven automated packaging lines. The packaging equipment was owned by the client but was being operated by a contract manufacturer. In addition to relocating the operation, the client was also interested in purchasing new equipment to increase capacity.



Project Description

Advent began the project by developing an estimated cost to move the equipment along with conducting a demographic survey to determine the best location for the new facility based on worker availability and cost, access to shipping corridors, and facility cost. During this initial planning phase Advent discovered that the current equipment was severely underutilized and poorly documented which added significant risk to moving the equipment. Advent recommended renegotiating the contract with the existing contract packager, and delaying the move, while embarking on a project to increase the capacity and utilization of the current equipment and develop the appropriate documentation.

In theory the feeding equipment on the packaging lines was interchangeable and could be moved based on the variety and quantity of parts being bagged. In reality each line was wired differently, and had a unique control system. Operator training was unique to each packaging line. Advent rewired all of the packaging lines and rewrote the control system software which resulted in greater production flexibility and a 30% increase in plant capacity.

Two years later when the contract manufacturing agreement was once again near expiration the client decided to move their packaging operations off-shore but also wanted to maintain a domestic operation. This client approached Advent Design with the opportunity to set up and operate the domestic facility. Advent was the preferred vendor because of our advanced controls and equipment expertise, our intimate knowledge with the existing equipment and our proven track record of consistently improving the operation.

Since installing two packaging lines in our facility Advent has continued to increase throughput and improve flexibility. During the first year of operation Advent increased the throughput of the packaging lines by over 50%, and continues to develop procedures to reduce changeover, increase flexibility, and improve quality.

Impact

Advent has applied Lean Manufacturing principles and has been able to demonstrate its impact on increased capacity, reduced labor and improved quality.

Custom Engineering Solutions



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