

Automation Solution Helps US Fishing Lure Manufacturer Stay Competitive

A Fishing Lure manufacturer in the northwest stands committed to keeping their manufacturing in the U.S. This means finding ways to automate in order to compete with the significantly lower wages offered overseas.

After a meeting and demonstration at the PMMI Show in Las Vegas, this dedicated manufacturer partnered with [Compass Industrial Group](#) of Bogart Georgia to automate their fishing lure packaging process. Compass Industrial Group provide innovative equipment and engineering services for high speed packaging and material handling.



The situation

The process of taking a small bag containing a fishing lure and stapling it to the appropriate label card was a manual one. After the bag and card were attached the assembly operators would then read the printed barcode to verify that the correct card was attached and that the barcode was readable. This second step was critical because the retailer would fine the manufacturer \$250 for each occurrence of a non-readable barcode. Rubber bands would be wrapped around packs of 6 finished units.

This was a very labor intensive process, and because of its repetitive nature, the operators would occasionally miss reading each barcode. In addition, there was a substantial turnover rate, meaning much time was spent retraining new operators on the process and getting them up to production speeds.

The solution

Compass brought in ACS to assist in the concept and design of the new packaging system. “Cale was very involved with the round table discussions with our engineers to determine the best approach. His experience and input was very valuable.” Claimed Compass owner, Mike Morrison.

To begin with a Cognex In-Sight Vision system determined the orientation of the small bags containing a lure. A Smart Vision L300 Bar light mounted on a Swivel Link arm were used for proper illumination. An Epson G6 robot picked up two individual bags, using a Piab vacuum system, and then insert them into the header card stapler. The robot would then present the two completed packages to a Cognex DataMan 260 barcode reader to read and verify the barcodes 100%. If the barcode passed the packages were stacked 6-high into a servo controlled bander to put the rubber band around the finished products.

An AB Panel View was used to select one of 6 recipes based on the lure to be packaged. These recipes would dictate what barcode was to be expected. The robot would also adapt based on the card size for each recipe.

The entire automated packaging system was built on a rolling platform allowing it to be inserted into any of several modular assembly lines. ASO safety mats protected inside the machine guarding, ensuring that no one could be caught inside the guarded area during operation.

The Results

The new automated system will require 1 operator, freeing up 5 others to be reallocated to other more cost-effective processes. Training of new operators has been all but eliminated. This has all resulted in increased productivity and efficiency as well as an increase quality control relating to misread barcodes.