

APPLICATION SOLUTION: Plastic Bottle Bagging

Product Family: Electric

Product Used: B3W Belt Drive Actuators

Product Type: Standard

Application Requirements:

Stroke: 68 and 40 inches

Application Description:

Automated bagging of empty molded bottles for transporting

Challenge:

A machine used to plastic wrap newly molded empty bottles – to keep them clean during transport to filling stations – was using pneumatic motion control. Controlling the positions of the bottles prior to wrapping was more critical than speed and force. With the pneumatic system, bottles had a tendency to fall out of position from too much force. The result: all the bottles had to be removed and the process had to be restarted from the beginning. This was causing downtime in the production process, excess waste and loss of production capacity.

Tolomatic Solution:

Working with the customer to maximize their current machine design, three B3W electric linear belt drive actuators were selected. To operate the main ram a B3W with a 3:1 reduction drive was selected to move the bottles into place. Two other B3W actuators with direct drives were used on right and left side pushers, to align the bottles in place prior to wrapping. The customer was also able to use the motor of their choice with the Tolomatic Your Motor Here program. By using this solution, fast motion could be employed to position bottles, slowed down to pack bottles in place, and accelerated again for bagging.

Customer Benefit:

- Quick, accurate, repeatable lane adjustments for infinite bottle sizes
- Elimination of manual labor during product changeover
- Eliminate downtime due to tipping bottles
- Elimination of costly air and potential leaks across the plant
- Increase productivity
- Ensure the cleanliness of the product