

APPLICATION SOLUTION: Case Packing Changeover



Product Family: Electric
Product Used: RSA Rod Actuator
Product Type: Standard

Application Requirements:
Stroke: 30 inches
Speed: Total cycle time: 10 seconds
Load: 150 pounds
Moments: NA

Application Description:

Packing bottles for In-case filling

Challenge:

A manufacturer of plastic bottles and pre-form liquid containers had several lines of case packers packing a variety of bottle and case sizes. The lines utilized intermittent motion that featured pneumatically powered linear cylinders but the cycle times were too slow. Changeovers from one case size to the next required rod spacers and the adjustments were completely manual and very time consuming. Additionally, a company wide initiative to reduce air consumption had just been established.

Tolomatic Solution:

Using our electric products sizing and selection tool, Tolomatic and our channel partner worked with the customer to develop a motion profile that could be deployed on an electric rod style actuator as follows: Motion Profile: Extend 6”(1 sec.), retract 6”(1 sec.), Dwell (2 sec.), extend 24”(2 sec.), retract 24”(2 sec.)-Repeat Motion Profile. The motion profile was specifically designed to improve cycle time. A Tolomatic RSA50 rod actuator with a two turns-per-inch ball nut was selected for this continuous duty cycle application. The configured part number was a standard catalog part number and featured Tolomatic’s “Your Motor Here” program providing the customer flexibility to select their specified motor and drive combination to power the actuator.

Customer Benefit:

- Faster cycle times - up to 20% for certain case sizes.
- A fully automated changeover process controlled by the PLC reduced changeover time to just seconds.
- The switch to electric power reduced air consumption, supporting the company wide initiative.