

CASE STUDY

Servo System Eliminates Production Line Bottleneck

CHALLENGE

A local animal food production facility was looking to speed up production of their small can line. A bottleneck was discovered in the can sweep section of an old palletizer. The existing unit consisted of two parallel rodless pneumatic slides driving the 300 pound carriage approximately 1300 mm.

While the slides were capable of plenty of speed, controlling them was the problem. A deceleration valve was marginally effective at the original speed, but needed difficult to adjust shock absorbers and was too violent at the higher, target speed.

SOLUTION

Price Engineering was called in to consult and offer a more controllable solution while meeting budget requirements. It was determined that a combination of slides, servo and gearbox from Mitsubishi, Schunk and Shimpo would be the best answer even though the budget was exceeded. The customer was impressed with the build quality and perceived durability of the Schunk belt driven slides. These were more expensive than alternative slides. This was a high volume production line. The increase in cost could pay for itself if longevity and downtime were maintained.

Schunk slides were selected and servo motor and gearbox calculations provided by Schunk translated easily into Mitsubishi and Shimpo part numbers. The customer installed all components.

BENEFITS

1. The bottleneck was eliminated increasing production.
2. Component selection provided the best value. The existing Rockwell PLC was used.
3. Fast installation. Startup assistance was provided by Mitsubishi and Price Engineering.
4. The customer is extremely pleased with their installation and will be adding a similar set up to another sweep.

