EXLAR®

Exlar's Tritex II® Rotary Actuator Aides in Automating Riveting Process

APPLICATION

The customer previously employed a manual process for assembling conveyor belts. This process was slow and prone to error resulting in excess scrap. The customer wanted to improve their riveting process by designing an automated riveting machine to increase throughput, improve accuracy and eliminate scrap. The approach taken employed rails and a carriage with an automatic riveter mounted to it. The customer needed an actuator to move the riveter down the track utilizing a feed move function. During operation, the riveter advances until a metal rod is detected under the belt (sensed by a proximity switch). Once the rod is located, the riveter carriage will stop and a rivet will be located at that spot attaching the belt to the rod. The riveter then continues to the next rod, and the next, until it reaches the end of the track.

CUSTOMER CHALLENGE

A supplier of parts and support services for food processing machinery

SOLUTION

The customer chose a Tritex II® rotary actuator because it did not require purchasing and mounting a separate servo amplifier and control panel. To translate the rotary motion of the Tritex II into linear motion the customer used a synchronous belt. Additionally, the Tritex User Interface was easy enough for the company's assembly workers to set up and establish the proper feed move indexes for operation of the unit. Exlar's Tritex II actuator also offered a low integration cost with all of the other components of the automated riveting machine.

Exlar's Tritex II rotary actuator installed on automated riveting machine

RESULTS

- Increased throughput
- Decreased errors
- Simple to use programming
- Low integration costs