

Circonix Technologies Reduces Material Wrinkling with Exlar® GSX40 Actuators

APPLICATION

Turret rewriter

CUSTOMER

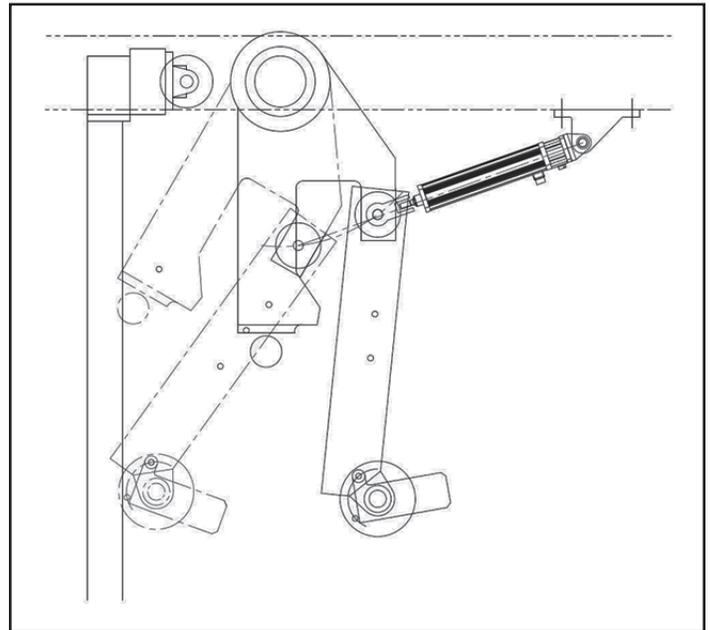
Circonix Technologies, located in Ringwood, New Jersey, is an integrator and machine builder/remanufacturer in the web handling, converting, and extrusion industry.

CUSTOMER CHALLENGE

Circonix Technologies was rebuilding a pack/gap roll arm that was using two air cylinders to position a pack/gap roll on a 3,500 lb. turret take-up roll for a rewriter. A pack/gap roll either rides on (pack) or near (gap) a material take-up roll to control the roll build up quality. The finished roll is either stored for further processing or sold as the end product. As the take-up roll accumulates material, its diameter increases from 5 to 50 inches. The pack/gap roll needs to move in conjunction with the expanding take-up roll to keep the material smooth and true. Previously, Circonix' customer experienced problems with the pack-roll not precisely following the diameter of the take-up roll, resulting in wrinkling in the material when winding. Circonix Technologies needed to design a solution that would allow the pack/gap roll to follow the increasing diameter of the take-up roll very accurately with a consistent pressure or gap in order to eliminate the wrinkling of the material.

SOLUTION

Because of the precision and control needed for this application, Circonix Technologies decided an electric actuator solution was the most appropriate. Exlar not only offered the correct size actuators but also the application engineering expertise to answer all of Circonix' design needs which included the integration of the actuators with the existing Siemens servo drives on the machine. The Exlar GSX40's Siemens connector option allowed Circonix to use standard Siemens cables saving time in design and potential troubleshooting. The absolute encoder option for



Exlar's GSX40 located on Circonix Technologies turret rewriter.

the GSX40s provided precise feedback for the drives to control the GSX40 motors. The internal brake option was also selected for safety, so that in the case of a power outage, the heavy pack/gap roll would not move. Circonix' Director of Sales, Paul Bilotti said: "We could have built a perfect machine for our customer, but if their end product wasn't perfect nothing else would have mattered. The Exlar GSX40s and Exlar's Application Engineers helped enable our success."

RESULTS

- Precise control of the pack/gap roll maintaining proper roll pressure/gap at all times
- Easy integration with already existing Siemens drives
- Machine safety improved