

## Colpitt – Blood Bag Welding

### APPLICATION CHALLENGE

Colpitt is the leading machine builder for automated production of blood bags. Their machines for welding the bags historically have used pneumatic or hydro-pneumatic cylinders to perform this motion. Colpitt wanted to install an electric servo system through which all the motion required for this process could be controlled through PLC programming and provide better control of the sealing process.

### EXLAR SOLUTION

By using a Exlar® GSX servo actuator with its integrated roller screw and servo motor, Colpitt was able to achieve a quick transfer motion combined with a controlled low speed move for pressing at the end of each move. This allowed Colpitt to maintain a high cycle rate, while still achieving the accurate pressing control that their application requires. The integrated nature of the GSX Servo actuator allows both force and speed to be set very precisely resulting in an accurate and easily controlled process. The actuators run 24/7 without any interruptions. Utilizing the flexibility offered by the motion control system, Colpitt has been able to reduce their duty cycle and increase the throughput of blood bags that they are able to produce. The shorter cycle time combined with the reliability gives Colpitt customers a significant competitive advantage.

### EXLAR PRODUCTS

GSX40 and GSX50 servo actuators were used in this application. The flexibility offered by servo actuation provided Colpitt the ability to manipulate motion parameters instantaneously, via an operator interface panel, eliminating the need for setting switches or changing offsets. The GSX series actuators provide high speed, accurate movement and the convenience of an integrated design in a very compact package.



### The Exlar Linear Actuator Advantage with Planetary Roller Screw Technology

- Millions of cycles without re-lubrication or maintenance
- Roller screw driven with 15X the life of ball screws
- Quieter than other motion technologies
- Smoother motion
- Less energy consumption than fluid power
- Accurate and repeatable positioning
- Wide variety of mounting styles
- High cycle rates
- Multiple stroke lengths



*Exlar GSX Series  
Integrated Servo Motor/  
Linear Actuator*