Dear Reader,

An automated high speed packing system, offering substantial cost savings, with a small, easily adaptable footprint suitable for any location, that can be successfully operated in both foreign and domestic markets. Sounds interesting? Read on to find out how SEW partnered with Blueprint Automation to develop exactly one such solution.

madhura
Brand & Communication Team, SEW-EURODRIVE
June, 2021

SEW EURODRIVE

Drive technology TODAY

Rotary Gate Packer Packs Big Savings for Food Processors

Blueprint Automation and SEW partner to provide simple, affordable case packing solution

Challenge

Blueprint Automation, Inc., located in Colonial Heights VA., who designs and produces a wide array of automated case packing equipment, teamed with SEW-Eurodrive to address the food industry need for an affordable automated high-speed case packing system.

The challenge was to integrate mechanically and electrically an economic yet automated high-speed gravity-fed machine that could handle up to 300 bags/min with a small easily adaptable footprint for any location.

The goal of the collaboration between Blueprint Automation and SEW was to produce a dependable unit that could be successfully operated in both foreign and domestic markets without the necessity of on-site highly skilled operators, controls technicians, or programmers.

Finally, the unit had to be cost-effective for the food industry.To justify automation, a substantial cost savings directly related to a decrease in labor and maintenance costs to the customer had to be exhibited.

High-Speed Case Packing System

SEW EURODRIVE

Solution

With the help of SEW, Blueprint Automation produced the Rotary Gate Packer (Model RP) a simple high-speed, automated, case packing system with minimal electrical and mechanical components.

SEW's controls experience and drive designs provided Blueprint Automation the opportunity to design a high-speed case packing system, without having to use an expensive PLC and coordinated motion controller. The automated actions of the machine instead employed simpler and more cost-effective technologies such as simple variable frequency drives to high performance closed loop AC brushless servos.

The SEW family of mechanical and electronic products provided a single source responsibility along with a common programming platform.

The drive systems used included: MOVITRAC® 07 sensorless vector, MOVIDRIVE® Compact AC brushless servo, and MOVIDRIVE® Compact AC closed-loop vector drives.

The control platform consisted of a brick style DeviceNet compatible PLC and a single SEW UFD11A DeviceNet gateway fieldbus interface for communications, which can control up to 8 SEW drives.

The motion control was handled in IPOSPLUS® software, with template style application modules integrated in the MOVIDRIVE® processor.

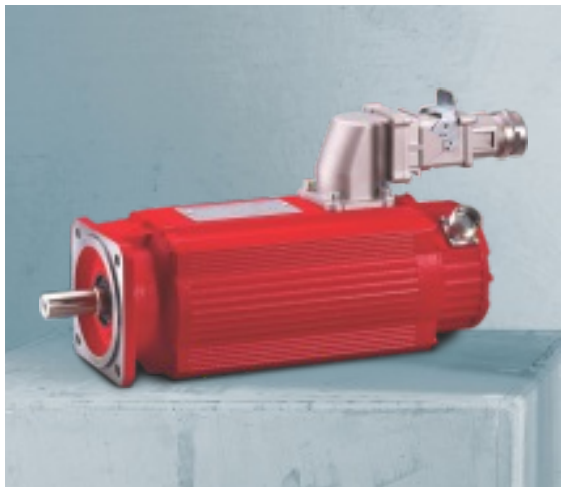
Results

The use of a fieldbus interface with matched electronic and mechanical components from SEW not only reduced the component cost, but dramatically reduced time for wiring, drive tuning and program development. Also the application module software insured the program structure to be the same between all machines.

Today, the Rotary Gate Packer remains cost competitive and is widely sold in North American markets where simplicity and low maintenance is important (i.e. fresh or frozen vegetables, frozen chicken, and other flexible packaging). The Model RP packs at speeds of up to 300 bags per minute and is extremely compact, providing an easily adaptable configuration that works with virtually any layout. ◀

MOVIDRIVE® Compact

MOVITRAC®



SERVOMOTOR