Packaging & Printing

AUTOMATION
case study

Servodrives Crucial to High Speed Vertical Form/Fill/Seal Machine

One of Italy's leading manufacturers of high-speed packaging machinery has chosen the outstanding performance, accuracy and reliability of Control Techniques' servodrives for its latest vertical form fill seal machines.

The VPC 330 B-HS vertical packer was designed to meet demanding customer specifications in terms of performance, reliability, flexibility and ease-of-use. The four brushless Unimotor FM servo motors controlled by Control Techniques Digitax ST servo drives, mounted in alignment, generate a mechanical speed of more than 165 pillow packages of 420x310-mm per minute and more than 80 four-seamed, square-bottom packs per minute up to a maximum film band of 1505-mm.

Film is drawn by laterally-mounted belts in a vacuum system, which means mono-layer, multi-layer and co-extruded materials can be used without affecting the productivity of the machine.

The pneumatic, self-centring sealing provided by the coil winder and pneumatic blocking by the shaping tube, means that formats can be changed over quickly and with no added tools. The easy-to-use touch-screen and innovative program synchronising with multi-head weighing machines means only one parameter needs to be changed to switch production format.

With the horizontal sealing unit mounted on a moving carriage, the packaging machine can be used in alternating or stripping mode. The single box frame design has streamlined the storage area and make the whole line easier to clean.

A wide range of optional extras enables machines to be customised to meet the packaging needs of customers, i.e. Euro hole, modified atmospheres, bag rolls with pre-perforated tears, labelling, insertion of "Cavaliere" cards and so on.

The Digitax ST range has been designed to meet the requirements of both machine designers and system integrators - a compact servo drive with an unmatched range of flexible integration features, optimised for servo applications requiring high peak torque, exceptional dynamic response, faster installation and start-up as well as ease of integration. Four product variants make up the range at launch - Base, Indexer, EZ Motion and Digitax ST Plus.

The Base model is designed to operate with a motion controller (or PLC or PC), connected using either digital communications or analogue signals. The Indexer is designed for simple stand-alone applications, using its onboard position controller and offers point-to-point positioning or can be integrated with a wider automation system using fieldbus, Ethernet and I/O. The EZ Motion unit utilises the popular PowerTools Pro PC programming interface that guides the user through the drive, I/O and motion configuration for many indexing and synchronised motor applications.

Digitax ST Plus features a full functionality motion controller, optimised for high performance machine cells requiring drive-to-drive networking, cam profiling and synchronised motion.

The key benefits of the professional service offered by Comek are reliability, high productivity, high technology, ease-of-use and customised solutions to help customers find the right solution to meet their needs. In this context, thanks to its latest generation technology, Control Techniques has proved the ideal partner to obtain the high levels of performance the market demands.

Comek has an established reputation in the market for automatic systems for packaging of potato crisps and salted snacks, confectionary, dairy products, fresh vegetables, dry/fresh pasta, frozen foods, pet food, powders, liquids/creams and vacuum packed goods. With more than 20 years' of experience in designing and building automatic weighing and packaging machines; the company has built up expertise in producing vertical packaging machines, linear and multi-head weighing machines, and volume bucket, screw and pneumatic batch feeders. Options include transportation systems, automatic applications for inserting free gifts, filler-sealing machines, pick & placers, and end-of-line palletisers.

KEY BENEFITS

- Reliability
- High productivity
- Innovative technology
- Ease-of-use
- Customised solutions

CONTROL TECHNIQUES™

Nidec
All for dreams

CS 0115-131-02/18