Inovance motion control doubles speed of UK pick-and-place machines

UK packaging machinery OEM Spiraltech improves performance of pick-and-place machines from 70 to 140 pieces-per-minute using Inovance servo drives, motors, and PLCs supplied by leading UK automation distributor CAPSS

CUSTOMER PROFILE

Spiraltech is a UK packaging machinery OEM with over 40 years of experience. It offers a wide range of paper converting and cardboard tube cutting machinery for the production of paper tubes, paper profiles and composite cans globally. Spiraltech differentiates itself through innovative machine design. Its focus is machines that can be changed over 2-3 times per day to enable small batch work. This is achieved because the machines have double the number of servos on compared to leading competitors.

CAPPS is a leading UK distributor of electrical and mechanical components for automation and control of plant and machinery. Technical advice is CAPSS's specialty, and they have a wealth of experience covering all aspects of control and electrical engineering, from simple switching to automation systems, networking, motor control, safety applications and software.

THE CHALLENGE

Spiraltech was looking to increase the performance of its pick-and-place machines from an average of 70 tubes-per-minute to an average of 140 tubes-per-minute (depending on tube size). These machines pick up tubes, and put them in formation with a strap around them so they can be easily loaded onto pallets. Standard pneumatics couldn't deliver these speeds and so the company knew it needed a servo motion solution. Key considerations were component size and performance, as well as value and the ability to work on IEC software standards.

THE SOLUTION

After a rigorous survey of the market, Spiraltech chose Inovance automation products supplied by CAPSS. The Inovance products used in the machines are: SV660N servo drives, MS1 servo motors, AM600 motion controllers, and GL10 and GL20 I/O modules. CAPSS was able to help Spiraltech identify the correct products, and also had everything immediately available which was a major consideration for the customer.





THE BENEFITS

The Inovance/CAPSS solution has meant that Spiraltech's machines are running at 140 pieces-per-minute, double the speed of most leading competitor machines. Meanwhile, CAPSS's high level of technical support and product availability meant the solution was up and running very fast. Additionally, the new machines have helped solve the labour shortage problem faced by customers. On standard machines, 2-3 people would be required to pack at a rate of 140 pieces-per-minute. It is increasingly difficult for customers in Europe and the US to find available labour to do this type of work. The new Spiraltech machines solve the problem by eliminating the need for manual packing.



KEY BENEFITS

• Machine performance doubled • Significant labour savings • Strong technical support from CAPSS

Steven Belwood, Managing Director of Spiraltech, says: "The Inovance kit is very high-spec and is suitable for food grade applications. Coupled with good value, rapid availability, and a compact size, going with Inovance was an obvious choice for us. And I loved that CAPSS had the product available immediately and were always available with quality technical support."

Paul Seale, Director of CAPSS, adds: "It's been really exciting to be involved with a project that has delivered such an obvious efficiency benefits. Taking pick-and-place machines from 70 to 140 pieces-per-minute is not something you see every day. We're really keen to keep working with Spiraltech in the future."