

Life Sciences Company Increases Production with High-Speed Robotic Packaging System that Uses Movicon.NExT™ Platform to Control Operation

RESULTS

- Improved operator efficiency helped achieve significant increase in production volume and speed
- Advanced access and audit trail capabilities assure compliance with 21 CFR Part 11 regulations
- Sophisticated Movicon.NExT multi-layered security protects against risk



APPLICATION

HMI for packaging automation.

CUSTOMER

Siempharma, system integrator and developer of packaging solutions for a sanitizer manufacturer, Italy.

CHALLENGE

A leading manufacturer of skin and surface sanitizer products in Europe and the Middle East experienced a huge spike in demand as a result of the COVID-19 pandemic. The manufacturer turned to its system integrator, Siempharma, for rapid development of a new vertical packaging machine that would enable a significant increase in production speed and volume as quickly as possible. While the HMI (human machine interface) employed in the existing manufacturing system was appropriate to the task, Siempharma now needed even greater ease of use, additional alarm notifications, tracking and audit trail capabilities, compliance with 21 CFR Part 11 regulations, and more.

SOLUTION

Siempharma developed an innovative, fully robotic vertical case packer employing SCARA robots, automatic carton picking and squaring, self-adhesive taping and case exit to conveyers. The company selected as its HMI, the Movicon.NExT platform, for its ease of use, scalability and versatility. The Movicon.NExT solution controls all of the operations of the robotic system, and allows management of the inputs and outputs of the programmable logic controllers (PLCs) installed on the machine.

“The advanced control, visibility and ease of use of the Movicon.NExT platform has helped us reduce waste and increase production speed and volume for our customer.”

Raffaele Volpecina

Software/Electrical Department Leader
Siempharma

From the main screen, the operator can view system status, check and enable the minimum bottle load, perform production tests, and access the recipe section, statistics and status, and the machine alarm page. On a dedicated page, the recipes, which are displayed in a table with relevant parameters, can be viewed and set. Once a recipe has been specified, the required setup and system adjustments are performed automatically. At the same time, operators have control of individual parameters if required, such as machine speed, length and width of the output belt, start and end times for the minimum and maximum bottle load, and maximum load of carton output.

Providing the critical 21 CFR Part 11 compliance, the Movicon.NExT platform allows the operator to view the sequence of actions taken in chronological, non-modifiable order. The system's advanced audit trail capability includes details such as any function changed, event date and time, value before and after the change, name of the user who made the change, and any comments. The audit trail report can be exported, saved and printed in a readable format.

The Movicon.NExT platform provides comprehensive access management. Users are provided usernames and passwords with differing access privileges, and credentials are shared with Movicon™ via a Windows domain, LDAP service, or Microsoft Active Directory. The setup page allows configuration parameters to be changed depending on access level. Operators can also view access history to the system and server.

The sophisticated control, visibility and ease of use provided by the Movicon platform helped improve and accelerate production, reduce waste and significantly enhance efficiency. These capabilities have contributed to the notable increase in production speed and volume created by the robotic system.

While the total robotic system was created specifically for the requirements of this manufacturer, Siempharma can re-use the technology for other life sciences applications.

RESOURCES

www.Emerson.com/Movicon

The Movicon.NExT platform enables a leading life sciences company to meet rapidly growing market demand as well as stringent regulatory compliance requirements by increasing productivity, efficiency, quality and speed of response.

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