

# **PRESS RELEASE – FOR IMMEDIATE RELEASE**

## **Packaging Line for Vaccine Vials Meets Urgent Demand for Production**

April 2021, Blacksburg, Virginia — In order to expand their capacity to meet the demand for COVID-19 vaccines, a pharmaceutical manufacturer turned to ESS Technologies to supply an automated packaging line for cartoning and case packing 10ml vials of vaccine. The end-of-line system received up to 150 vaccine vials per minute, producing fifteen ten-pack cartons per minute. The flexible cartoner included automatic leaflet insertion and partition insertion as required by the product being packaged. ESS integrated a customer-supplied serialization system to track unique codes on the vials and cartons throughout the packaging line.

## **Automated High Speed Vial Handling**

The up-stream vial labelers were integrated with the Model VC30 Cartoner to deliver 150 10ml vaccine vials per minute to the cartoner infeed. The ESS designed servo collation system formed the vials into the 2 x 5 pack pattern. ESS integrated a FANUC SR-6iA robot with vacuum end-of-arm tooling (EOAT) to erect auto-bottom cartons and place them in the carton transport conveyor. A FANUC SR-3iA robot erected and inserted a partition into the carton, if required, before a FANUC LR200iD robot used vacuum EOAT to pick the complete ten-count pack pattern and place the vials in the erected carton. A second FANUC SR-3iA robot picked and placed a leaflet on top of the vials before the carton conveyed to a top closer that folded and closed the carton flaps. The VC30 cartoned 15 ten-pack cartons per minute.

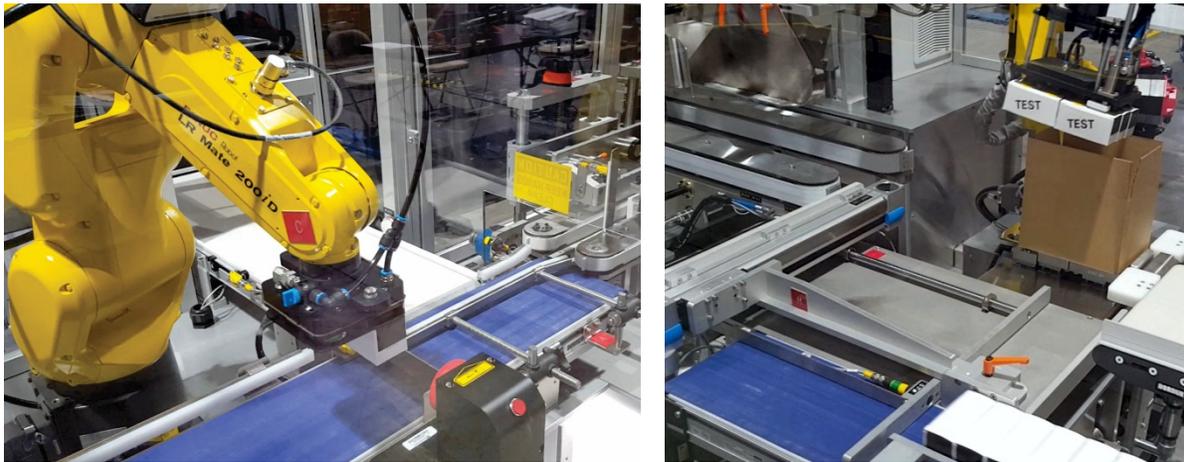


*SR-6iA Carton Erecting Robot and Robots for Partition, Vial and Leaflet Loading*

## **Laser Coder and Integrated Case Packer Completes the Packaging Line**

ESS integrated a FANUC LR200iD robot with an OEM laser coder to pick cartons from the top closer and hold them to the coder, which printed a LOT/EXP code on the side of the cartons. The robot then held the carton code to an integrated camera system that inspected the code. The robot

rejected cartons with non-compliant codes and placed cartons with compliant codes on the CEL5 infeed conveyor for case packing. The compact CEL5 Robotic Case Packer integrated a FANUC M-20iA/20M robot with custom, ESS-designed EOAT to erect an RSC case and place it on a vacuum plate for loading. Cartons of vaccine vials collated into the required 2 x 3 pack pattern as the robot erected the case. Using vacuum EOAT, the robot picked the full pattern of cartons and loaded them into the case, repeating to add a second layer and complete the case pack pattern. Cases then conveyed to the closer and taper that folded the top flaps and taped the top and bottom of the case. ESS integrated a corner wrap print and apply labeler to label sealed cases, which discharged via a 90-degree exit conveyor.



*LR200iD Robot for Laser Coder and CEL5 Case Loading*

Allen Bradley controls and color touchscreen HMI made the packaging line easy to operate, and FANUC robots offered high reliability for the system. ESS designs all machines to provide fast, largely tool-free changeover and offers preventative maintenance technology to reduce line downtime. As an authorized FANUC System Integrator and OEM machine builder, ESS was able to provide, in only a few months, a full turnkey solution for the pharmaceutical manufacturer, allowing them to meet the need for more vaccine doses.

### **About ESS Technologies, Inc.**

ESS Technologies, Inc., founded in 1993, specializes in complete packaging line design, manufacture, and integration. Our product expertise includes filler-capper systems, side-load and top-load cartoners, side-, bottom- and top-load case packers, wrap around case packers, robotic palletizing systems, and custom designed TaskMate Robotic Systems®. ESS is a robotics Strategic Partner with FANUC America in the area of secondary packaging and palletizing pharmaceuticals and a FANUC Robot Authorized System Integrator. As an essential machinery supplier to the diagnostics and pharmaceutical industries, ESS Technologies remains committed to designing high performance packaging machinery.