

# Standardisation of multi-vial vaccine line speeds up delivery times

Since the rollout of the global COVID-19 vaccination programme, there has been a massive demand for vaccine processing technologies. In addition to performance, quality and safety, rapid machine availability is a key concern. In response, Romaco has developed standardised solutions, such as the Promatic P 91 multi-vial vaccine line, which reduces delivery times from order entry to FAT, to a mere three months.

The GMP-compliant Promatic P 91 line is specially designed for the packaging of 2R, 6R and 10R vials. It can produce packs of six, 10, 20 or 40 with a maximum output of 40 packs per minute. Servo motors and electronic cams guarantee safe handling when packing the glass vials. Toothed belts are used instead of chains for low-vibration running and to keep the vaccine line maintenance costs to a minimum.

The HMI is configured with various functions to speed up and visualise troubleshooting and fault clearance. Several monitoring systems simultaneously permit optimal process control. Furthermore, the balcony architecture and ergonomic layout of the machine ensure it is readily accessible and visible, simplifying format changes and eliminating the risk of cross-contamination.

## TRANSPORT VIA VACUUM

On the intermittent motion cartoner, the vials are first placed in so-called cardboard eco-trays and then they are packed in cartons together with a booklet.

To transfer the vials and to open the eco-trays and cartons, the Promatic P 91

uses pick and place systems with vacuum grippers. It generates the required vacuum in a Venturi process rather than with classic vacuum pumps.

This has several advantages – as well as being comparatively small, Venturi pumps make less noise, give off less heat and generally need less maintenance.

**"The compact transfer station ensures that all secondary packed vaccines can be tracked and traced reliably"**

The vaccine line is equipped with four different feeding units. Both the eco-trays and the cartons are fed via horizontal magazines. Vials originating from the rotary table are separated and grouped on a conveyor belt, and then inserted into the erected trays by

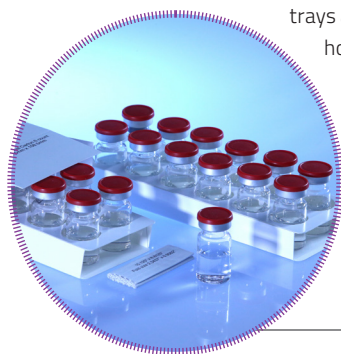
the pick and place system. The vacuum gripper positions the booklets on the loaded eco-trays before they are pushed into the cartons.

Promatic cartoners like the P91 have a positive opening system that allows the eco-trays and cartons to be erected without being damaged. The packaging is pulled off and actively opened for this purpose by two vacuum grippers. Consequently, there is no friction that could impair the cartons. This makes the process ideal for recycled materials that have lower stability owing to their fibre structure, so gentle processing is a must.

## RELIABLE TRACK AND TRACE

The cartons pass through the Promatic carton carry immediately after exiting from the cartoner. The carton carry checks the hot glue closures and prints the Pharmacode – either a 2D data matrix or a QR code – on each pack. The compact transfer station ensures that all secondary packed vaccines can be tracked and traced reliably by verifying each code before the system releases the packs for the next process step.

Romaco's headquarters are located in Karlsruhe, Germany. It also operates from five European business sites with a broad portfolio consisting of seven established product brands. PMD Packaging is Romaco's reseller and service agent in South Africa. ■



Secondary packaged vials in eco-trays and cartons



PMD Packaging – [pmdpackaging.co.za](http://pmdpackaging.co.za)  
Romaco – [www.romaco.com](http://www.romaco.com)

The Romaco Promatic P 91 intermittent motion multi-vial vaccine line for packing vials into eco-trays and cartons