etipack PHARMA

TECHNEWS

Automatic labelling of glass pharmaceutical vials with selective rejection system

etipack
labelling, coding, caring

System 1 Pharma with a selective “Multifinger” rejection unit

THE CUSTOMER

MANUFACTURER OF INJECTABLE AND INFUSION PREPARATIONS

A pharmaceutical manufacturer based in Greece, specialised in the production and distribution of injectable and infusion preparations. Operating its own production facility, the company holds a consolidated position in both the domestic and international pharmaceutical market, with a strong focus on process quality and adherence to European regulatory requirements.

THE CHALLENGE

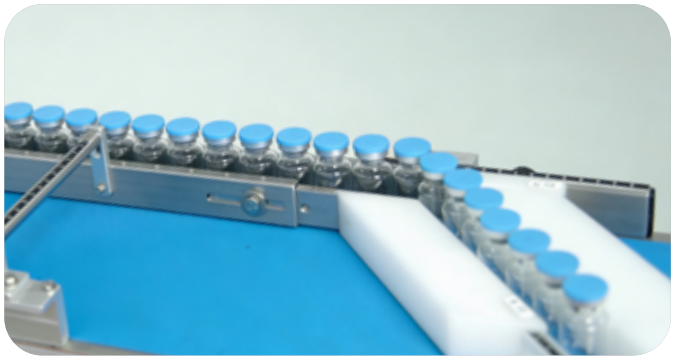
Handling 17 vial formats with integrated overprint verification and high-speed selective rejection

The customer needed to **label cylindrical glass vials in 17 different formats**, with differing diameters and heights, at high speed. To this was added the requirement to integrate, on the same line, **variable data printing and OCV/OCR verification** of the overprint on each label. The fragility of the product and the high production speeds ultimately made a **selective rejection** system necessary, one capable of removing non-conforming units without risk of breakage and without slowing the flow of the line.

THE SOLUTION

System 1 Pharma customised with selective rejection: full process control across 17 pharmaceutical vial formats

To meet the full set of customer requirements, Etipack engineered a customised configuration of **System 1 Pharma**, the platform from the pharmaceutical labelling series dedicated to cylindrical container handling, **equipped with the Extreme 100**, the top-of-the-range labelling head designed for high-speed applications demanding maximum application accuracy. The solution combines wrap-around label application via a dedicated product rotation device, inline variable data printing with integrated **OCV/OCR overprint verification**, and a **specialised parallel-belt rejection unit**, engineered to ensure controlled and gentle handling of glass vials at the required line speeds.

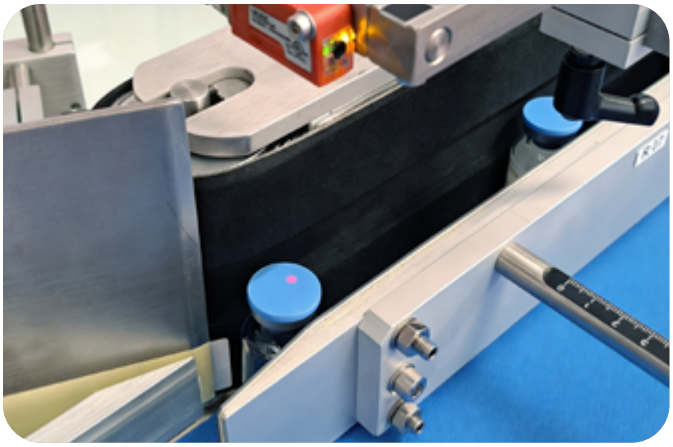


TRANSPORT AND CONVEYING

The vials are infeeded through a rotary table equipped with a stainless steel platform and a customized tray discharge system. The transfer is carried out via a split-belt conveyor system with dual drive, product guides, and maximum load control.

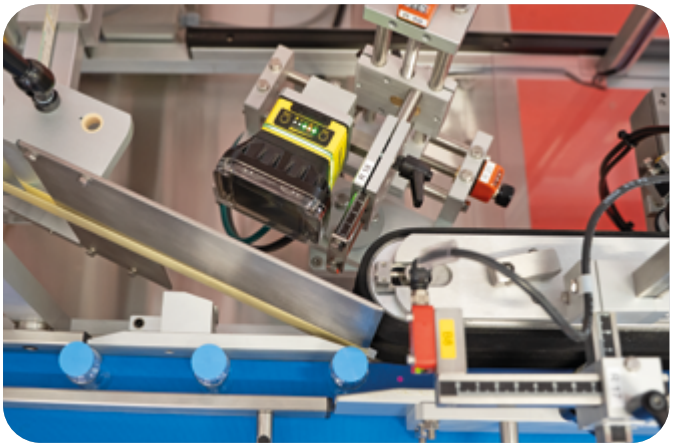
PRE-SPACING

A dual counter-rotating belt assembly provides controlled pre-spacing of vials upstream of the labelling station.



LABELLING

The label is wrapped by means of a product rotation device (PRD), which ensures a uniform and accurate application of the label. The system includes format changeovers to handle the wide range of vials processed.



VARIABLE DATA PRINTING AND OVERPRINT VERIFICATION

Variable data printing is integrated directly on the dispensing unit. A camera verifies overprint correctness on each individual vial prior to the application, ensuring full product traceability.

LABEL PRESENCE VERIFICATION VIA UV PHOTOCELLS.

Label application is confirmed by dual UV photocells, verifying label presence on each vial prior to line exit.

“MULTIFINGER” REJECTION UNIT

Non-conforming units are managed by a linear pneumatic diverter operating on a dedicated parallel conveyor belt. This configuration is specifically suited to fragile primary packaging at high line speeds. Unlike conventional lever-based rejection systems, which are prone to container damage and introduce speed limitations, the “Multifinger” unit transfers rejected vials smoothly onto the parallel belt, ensuring selective, damage-free ejection with no impact on upstream line flow.

Purpose-engineered labelling solution delivering reliability, quality control and productivity on pharmaceutical glass vials

THE RESULTS

The system was validated across 17 cylindrical glass **vial formats** with **22 associated label specifications**, **demonstrating high-format flexibility** and consistent **performance in both label application** accuracy and non-conforming unit ejection.

T**he "Multifinger" rejection unit** enabled the required line speeds to be maintained **without risk to container integrity**, while **the integrated OCV/OCR verification system ensures that every labelled unit meets** the product **traceability and quality control requirements of GMP-compliant pharmaceutical manufacturing**.

PRODUCTION OUTPUT

UP TO 280 UNITS/MIN

on the smallest format variants

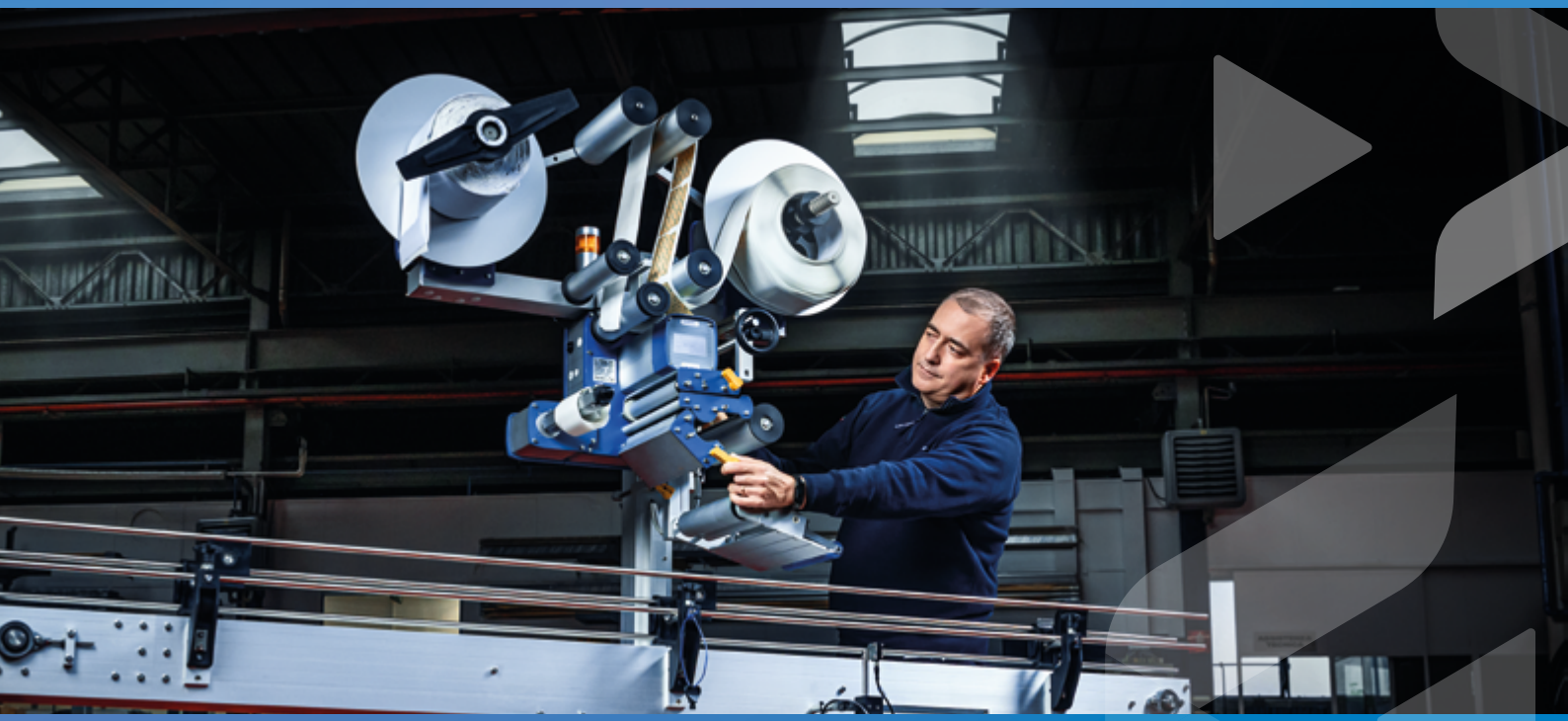
WATCH THE VIDEO

etipack PHARMA

Have a pharmaceutical project in progress?

We design modular, high-performance labeling systems that meet the most demanding standards in the pharmaceuticals industry.

Contact us to find out how we can meet your production needs.



ABOUT ETIPACK

Etipack SpA designs, manufactures and sells industrial systems for l**abelling and coding** with self-adhesive labels and **feeders** for product distribution and handling. Since 1978 a leading company in its sector in Italy, and one of the largest in Europe, Etipack is an international company and **member of the Possehl Identification Solutions division** under the German Possehl Group.

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