



TECHNEWS
**WRAP-AROUND
LABELLING OF
PHARMACEUTICAL
UNSTABLE VIALS**



Automatic system for applying wrap-around labels to 2 formats of vials, with change of product orientation from the line

THE CLIENT

An Italian company that develops and manufactures food supplements, foods for special medical purposes and medical devices on a contract basis. It offers customers a complete service, from raw material selection, through formulation and industrial-scale production, to the delivery of the final product.

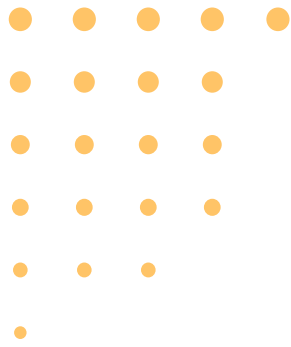


THE CHALLENGE

Wrap-around labelling of unstable cylindrical vials with position change

The customer was looking for a solution to label 2 different sizes of pharmaceutical vials, which could be integrated into a production line with vertical handling. However, the project faced a particular complexity: one of the two products, marked by a 'narrow and tall' shape, was unstable when conveyed vertically. The project therefore focused on the study of a solution that would allow labelling with horizontal handling.





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170
pcs/min

Production Capacity

THE SOLUTION

System 3 customised to change orientation and apply wrap-around labels on the product body

System 3 is an automatic machine for conveying and labelling unstable cylindrical products. To meet the requirements of the project, particularly for the most unstable product (tube), a special Sistema 3 was designed. Equipped with a customised shaped roller conveyor structure, and a product rotation mechanism, it allows the product to be orientated by 90° and, thus, enables the label to be applied with horizontal movement.



TIPPING SYSTEM

To pick products from the line, the system features a pair of DRPs and motorized side belts at the inlet, complete with 2-axis micro-adjustments, which accommodate vertically placed vials.

Using an auger tipping system, products are rotated 90° to allow horizontal transport.



LABELLING MACHINE WITH DOUBLE UNWINDERS AND DOUBLE UNWINDING ROLLER



The system integrates an Energy 100 automatic labeling machine with a dispensing speed of up to 60 m/min. To support reels up to 280 mm in diameter, it is equipped with a double roller drive unit that is ideal for labels with backing widths up to 100 mm. There are two unwinders with disc brakes, equipped with internal capacitive encoder with pre-alarm signal for reel end control. The second unwinder is also provided with a mounting plate.

CUSTOM-SHAPED ROLLER CONVEYOR

Products coming from the auger are housed on a specially designed roller conveyor belt, with customized shapes and guides, which allows the product to be transported stably and smoothly to the labeling station, and to spin allowing the perfect wrap-around application of the label.



OVERPRINTING AND LABELLING CONTROL

The system integrates a thermal printing unit for label overprinting. In order to manage overprinting control, the labelling machine has been equipped with special electronic expansion, while a control station for completed overprinting has been installed on the terminal. In addition, a 2 barrier UV labelling control with photocells is also fitted.



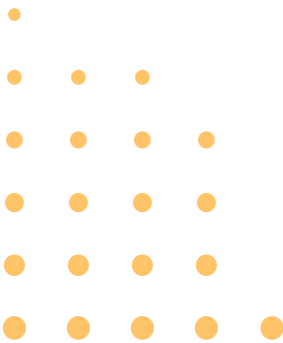


NON-CONFORMING PRODUCT DISCARD

Invalid products are rejected through an air jet ejector and collected in a drawer equipped with a maximum load control. The system is supplied with rejection and good product output checks.

CONTROL PANEL WITH SPECIFIC PHARMA FEATURES

Equipped with advanced electronics with PLC for constant peripheral diagnosis, it integrates an ASEM Panel PC with operator interface based on SCADA technology in Windows 10 environment and SQL Express Database. It enables remote system management and remote assistance on panel PC and PLC. The control panel allows management of FailSafe, Back-up/ restore and disaster recovery functions, as well as collection of production batch, CFR21/Event/Alarm and production data reporting.



ABOUT ETIPACK

Etipack SpA designs, manufactures and sells industrial systems for labelling and coding with self-adhesive labels, feeders and pick and place machines for product distribution and handling. Since 1978 a leading company in its sector in Italy, and one of the largest in Europe, Etipack is today an international group consisting of subsidiaries and affiliates.

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