

# SYSTEM 9 SPECIAL

## Chemical Sector - OEM

### THE CLIENT

Italian group operating in the agro pharmaceutical sector, is specialized in synthesis, formulation and distribution of active ingredients and chemical agents.

**Handling system for large cardboard boxes equipped with labelling machine for label application with pitch up to 400 mm**

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**The challenge: labeling large format and thick cardboard boxes to facilitate reel changes of significant weight and size**  
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The customer was looking for a solution to both handle cardboard boxes of large size and considerable thickness, and apply large-format labels. Considering the size and weight of the reels, the system had to be able to handle flawless distribution of the labels while making it easy for the operator to change the roll.



# THE PROJECT

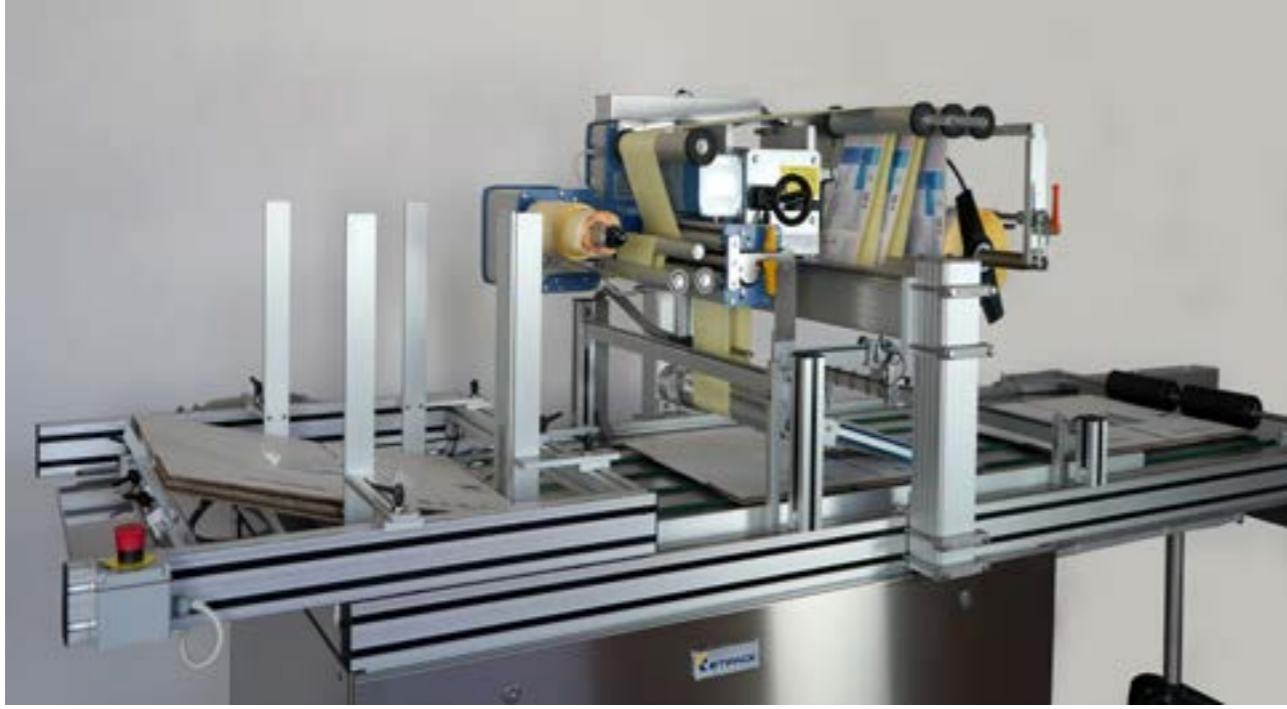
The project presented two important challenges: on one hand the need to adapt Energy labeling machine print head, which normally handles small labels, to make it able to handle and apply mastodontic labels; on the other hand the need to find a convenient solution to manually replace reels of considerable weight and size.



WATCH VIDEO  
<https://youtu.be/m6Ap-gpcjdo>



Production capacity  
 for width 298 mm  
 and 200 mm pitch

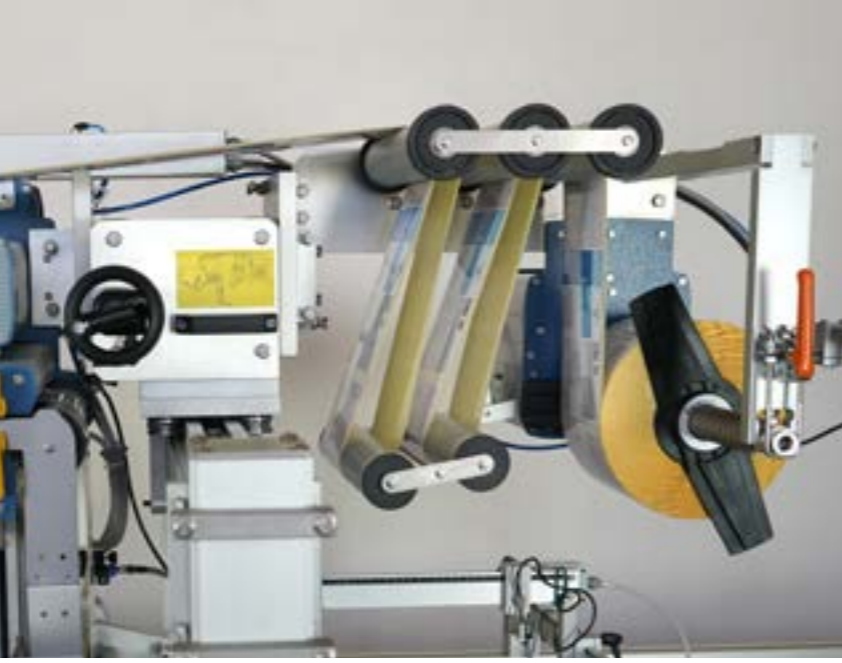


### COUPLED PULLING UNIT

Allows the large ribbon running smoothly by reducing the activity of the labeller; a drawing unit with double roller was installed in order to push labels up to 300 mm width. It is equipped with a tilting opening, a double lever closure, and a safety device.

### THE SOLUTION

Given the application requirements, it has been installed a front motorized unwinder equipped with a special buffer of rolls that facilitates the distribution of the ribbon with large format labels. The solution offers an improved weight distribution and makes reel changing easy.



### LOADING STACK

Adjustable, it is complete with mechanical shaving group, independent motorization and feeding system with parallel rubber belts.



### MOTORIZED UNWINDER

Positioned in front of the chassis machine, it facilitates and makes ergonomic the reel change. Considering the high weight, it comes complete with support structure and customized swinging arm with a buffer of rolls.



### REEL-END SENSOR

Equipped with external capacitive pre-alarm sensor, fitted as an optional, it allows to monitor the end of the reel.

# IN DETAIL

## PNEUMATIC CYLINDER

In order to avoid the backing paper from breaking during label dispensing, a pneumatic cylinder has been installed to smooth the movement of the unwinder swinging arm.



## FLOATING APPLICATOR

Thanks to a roller-floating applicator positioned on adjustable end, the system can adapt to any product changes. Once the application has been completed, within the tolerance limits specified, the original position is restored and labelling resumes with initial setup.



Thanks to a "stop device" the end is reset in the pre-set position after a thicker product transit.

## LABEL CENTERING SPECIAL SUPPORT

In order to allow the format changeover, a special support structure has been inserted to allow the labelling head position adjustment for a first label centering. Subsequently a microregulation is performed for precision centering.



## TASTEX START SENSOR

The sensor, with bracket and micro-adjustments, detects the movement of the product in transit allowing the correct labelling start time



## TOUCH SCREEN INTERFACE AND RECOVERY DEVICE

OMRON touch-screen operator interface allows quick and intuitive management of operating functions, controls and format settings, as well as the production run. The recovery device contains up to 30 labelled products ready for the operator to manual picking and placing them into production.

