



Laser marking on plastic trays in the food sector



KEY FACTS

CLIENT

Casa Mas Alimentación, S.L.

COUNTRY

Spain

INDUSTRY

Food (ready-made 5th generation)

SUBSTRATE

Plastic trays

EQUIPMENT USED

For workstation:

1 control software, 5 labellers
(3 of them are lasers)

NUMBER OF UNITS

5 labeller systems in 3
workstations

SPEED LINE

Up to 50 trays per minute

MESSAGE CONTENT

Ingredients, descriptions,
barcodes and 2D codes

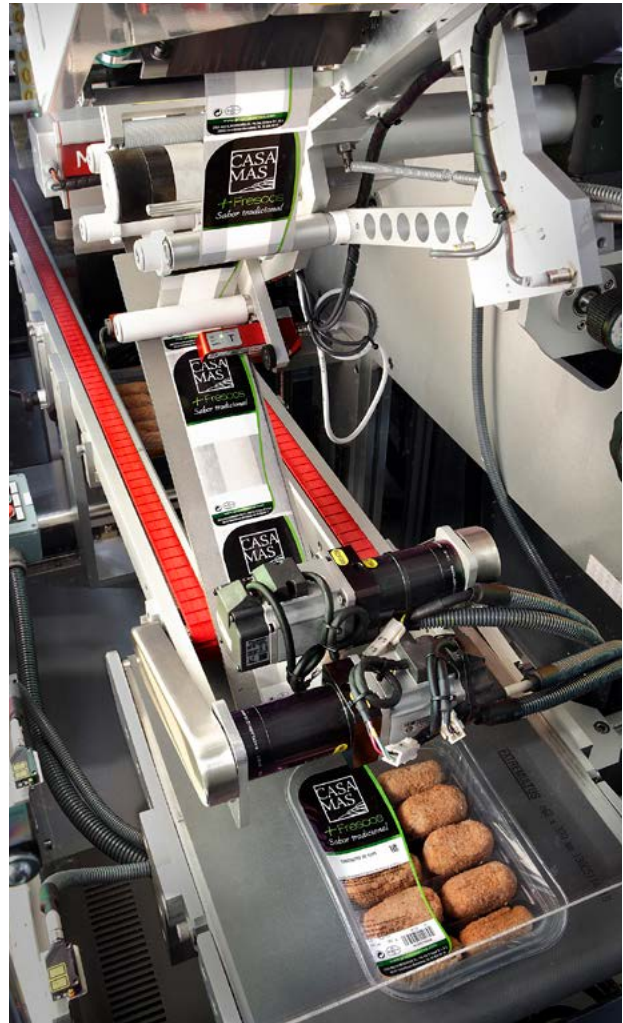
MESSAGE HEIGHT

Up to 100 mm

HOMEMADE-QUALITY FOOD WHICH RELY UPON MACSA'S SAFETY

Casa Mas Alimentación is a company with more than 19 years of experience in the food sector. It elaborates a large selection of fresh meals with 100% natural ingredients, homemade-quality and without being pasteurized. In the heart of nature, its products follow the most up to date food safety systems and offers customers cooked meals which conserves all the freshness, quality and flavour. Casa Mas offers more than 40 specialities, to which must be added seasonal recipes, prepared to offer an even more complete range throughout the year.

Its growth in recent years (in 2012 increased its turnover by 26%) and the market demand offered to Casa Mas the opportunity to supplement the production with the introduction of new meals. However, meeting this demand increase involved the risk of increased costs that it would lend to increased final price, something that the company wanted to avoid. The aim was therefore to increase production, and at the same time achieving a reduction in costs at its Castellterçol plant where there are 6 production lines. With this aim, they began searching for a technological partner that would offer them the solution to achieve their goal. The engineering, innovation and flexibility in Macsa's adaptation to Casa Mas needs were the key points to agree a partnership between both companies.



Macsa included a determinant factor in its offer: different disciplines integrated into a single supplier (Laser, P&A, Software...).

This factor in addition to its after-sales service quality and the capability of providing integral solutions in terms of traceability and codification of its products from the raw materials entry to finished products dispatch, allowed the total understanding between both parts in the goal research: developing the necessary technology to increase production and reduce costs.

Both goals were achieved since nowadays are launched more than 145.000 product trays per week in the three delivery lines (580.000/month therefore more than 6 million trays per year) in two work shifts. In addition, it enabled several products switching: trays with different sizes, weights, different texts and operating speeds in the same production line.

TAILOR-MADE CUSTOMER TECHNOLOGY PROVIDED BY MACSA

With a comprehensive control from beginning to end, Macsa offered the possibility of including in its 3 labelling stations (with 5 automatic labelling systems in each one) equipped with the latest technology in laser printing systems that allows a speed of up to 50 trays per minute, regardless of the labels to be applied over the trays. Thus, each of the three multifunctional labelling stations can provide a large variety of applications: two systems for placing pre-printed promotional labels (Sticker), two systems for labelling the tray in a semi-wraparound on 3 sides ("C" labelling) and a system to label by the bottom (anonymous label). Except in the case of pre-printed labels, the remaining three labelers use laser printing systems.

The tailor-made system by Macsa has been developed with careful consideration to the Casa Mas needs allows some particularities currently pioneers in the market. So, the application in the enveloping system ("C" labelling) allows to work with transparent-based plastic labels, for which are used special ultrasonic detection systems and devices for the discharge of static energy by ionization. In this case, the Fiber Laser for Film, allowing high speeds and a high quality. This caters to the Casa Mas need of being able to increase its production without reduce the process speed in any of its steps, since the labelling system designed by Macsa is agile, fast and adapted to what Casa Mas needed.



In the case of the lower label, CO2 laser equipment allows the labelling of the ingredients, nutritional values and method of preparation, at a rate of 0.4 seconds per label, on thermal paper substrate.

The labelling system is managed by specific software that automatically sets up the necessary labelling machines and sends the information to be printed to the computers from the introduction of the product code. Nowadays, the system allows setting up the machines while they are performing, the language and other control values. Until this moment labelling trays was performed manually at the wrapping machine output.

In addition, Macsa has developed a system of verification by artificial vision, that checks out the 2D codes printing and labeling associated with each tray. The managed information is included in the database and in case of poor printing or lack of labelling, information is delivered to the customer to its refuse at the wrapping system output.

The product code is selected in the software application and the system is configured automatically to place the appropriate label with the necessary information for each product, reducing the intervention of operators and eliminating coding errors.

The collaboration between Casa Mas and Macsa allowed the development of tailor-made technology that increases the food company's production and enhances its growth, while maintaining at the same time its characteristics of quality and food safety.

