

BEVERAGE CAN CODING

Bradma laser equipment is used to encode and mark products of a wide variety of materials, including paper, cardboard, plastics (PET, PVC, HDPE), glass, metals and wood. The messages and graphics that are achieved are of high quality, at a minimum operating cost and at high speeds.

Application News regularly provides a sample of products that are encoded and labelled with Bradma lasers, every day and worldwide.



The beverage industry is one of the industries with the highest production rates. In most of these factories, the hourly production of beverage cans is around 80,000 cans per hour. Since it requires coding of several lines of text, marking these products is a challenge.

Up until recently, the coding of these aluminium cans has been done with ink. However, ink is not an optimal coding system due to the environment in which it is produced which can affect its readability and adhesion. For that reason, it is common to find duplicate coding on the cans, which go through two coding systems in line, increasing operational costs.

The optimal alternative to this coding is the use of fiber lasers. This is where the radiation (with a wavelength of 1064 nanometres) generates an engraving reaction in the aluminium which, although it does not generate a colour change, does produce excellent visibility as well as ensuring an effective, reliable and sustainable coding system without the use of inks. As the production rates are so high and a large number of characters must be encoded, the best solution is to use ultra high speed (UHS) and high-power equipment, such as Bradma's SPA F-9050 UHS. The 100x100 mm lens used, provides a compromise between the energy density needed to generate a durable mark and the depth of focus needed to work on the curved bottom of the can without losing coding capability.

The characteristics of this system mean that it is possible to code up to 120,000 cans per minute, increasing the production rate without having to duplicate the coding system, making it an optimal solution also from a cost point of view.



LASER	Bradma F-9050 UHS
LENS	100 x 100
MARKET	Beverage
APPLICATION TYPE	Coding
PRODUCT	Beverage cans
MATERIAL	Aluminium
MARKING TYPE	Dynamic
MARKING TIME	0.03 seconds