eco mark



up to
100.000 fruit per hour

naturalbranding

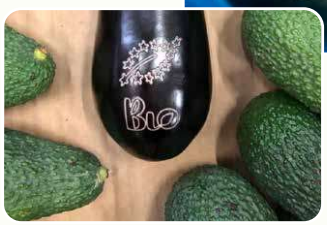
A low-cost and ecofriendly lasermarking-system for fruit, vegetables and more

THE PROCESS

Natural branding uses a laser to depigment only the uppermost cell layer of the fruit skin and removes only the outermost layer of the skin, **leaving the fruit undamaged**. The process is also approved for organic products. The **process does not use any chemical additives**, packaging material, colours or stickers.
This is in the interest of the environment and saves on rising packaging costs.







THE MACHINE

All machines of the NB series are built according to a modular principle.
There are two model series: Light and Professional. Even the entry-level machine from the Light series is equipped with a conveyor belt which **labels the fruit "on the fly"**, i.e. without stopping. Food can be **branded individually** or in packs or crates. Height differences of up to 66 mm (+/- 33 mm) are compensated automatically. Each machine contains a filter unit or is equipped with a device for connecting the extraction unit to an existing ventilation system.

"LIGHT" MODEL SERIES

The Light machine series of EcoMark, in addition to the lasers and the conveyor belt, is equipped with a light barrier which sends a trigger signal to the laser in order to activate the branding sequence. The size, the position and the **belt speed can be easily adjusted manually** on the machine.
It is particularly suitable for use with a small product range. Positioned fruits can be branded in a crate or individually. An **upgrade of the light machine with additional modules is possible at any time**. This makes it the ideal solution for smaller product portfolios and quantities and, as an entry-level model, excels with a very good price-performance ratio.



"PROFESSIONAL" MODEL SERIES

The Professional machine series is equipped with the same modules as the Light series, but is **more flexible and comfortable to handle**.
Additional modules are
- a 3D camera system for automatic product recognition including position detection
- automated height measurement and adjustment
- automated production speed management
- the linking EcoMark software for simple product management, production reports and rights management

The **3D camera recognises the position, size and orientation of the products automatically**. In a few milliseconds, the information is transmitted to the laser via the EcoMark software. This way, each product is labelled according to preset criteria. Depending on the available space or product range, the machine can be adapted to special requirements.



PRODUCTIVITY

There are different solutions for different requirements. That is why we offer you a wide range of laser powers from renowned laser manufacturers in Europe, th US and China. The special laser configuration is optimised according to the products to be marked. This way, not only the laser quality but also the productivity is optimised for your products.
The machine can be equipped with a laser power of 10 W to 120 W, depending on the requirements.
We have developed rapidly and equipped our machines with an even faster 3D camera and **processing software**. As a result, **process times of less than 0.1 seconds per fruit** and laser are now possible, so that up to 100,000 pieces of fruit can be lasered per hour.



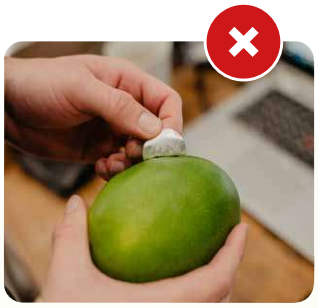


SPECIALISATIONS

Both our Light machine series and the Professional machine series can be specialised and adapted to certain product groups. This does not exclude the branding of other products, but it does allow a focus to be set. For this purpose we use special combinations of optics, lenses and laser heads. This is complemented by the individual selection of the laser power and the laser supplier.
Therefore, we **enable specialisations for mass production** (e.g. kiwis, mangos, avocados), sensitive fruits (e.g. citrus fruits) or large produce (e.g. pumpkins and melons). The laser and machine adjustments increase both output and laser quality. The result: **maximum quality and productivity**.







THE ADVANTAGES OVER PLASTIC PACKAGING

The economic advantage is clear to see: packaging weighs about 20 grams on average. In addition there is sticker for labelling. Therefore, the **packaging costs are often higher than product costs themselves**.
On top of that, there is the problem of over-portioning when the packaging unit is sold by weight. This results in losses of up to 5 %!
Furthermore, a complete packaging unit is disposed of as soon as a single object in the packaging is spoiled. A double loss due to 100 % loss of sales and additional disposal costs.
Avoiding packaging significantly **reduces the carbon footprint**, as each tonne of plastic saved reduces crude oil consumption and protects the environment.

THE ADVANTAGES OVER STICKERS

Laser labelling, including investment costs and handling, **costs less than 0.1 cent per piece** for kiwis or peaches, for example. This is **cheaper than using a sticker**. In addition, there are the costs of applying the stickers as well as the administration costs. With kiwis, avocados etc. there is also the risk of the sticker detaching from the peel. Special adhesives are often not approved for every product. Moreover, the sticker is made of plastic, which causes problems in the composting plant and harms the environment.

By making your laser an individual choice, we enable you to specialize also on big fruit, such as pumpkins or melons.



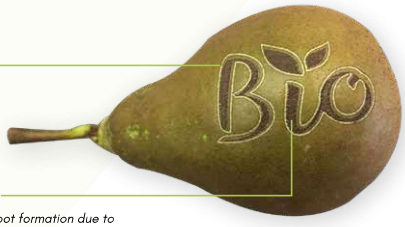
SUSTAINABLE PRODUCTS:

The product range for Natural Branding is growing. By now, the following products can be labelled easily:
Apple, aubergine, avocado, baked goods, pear, pomegranate, cucumber, ginger, kiwi, kohlrabi, coconut, garlic, pumpkin, lime, mango, melon, nectarine, nuts, orange, grapefruit, hot peppers, peach, radish, celery, lemon or courgette.

GENERALLY, TWO TYPES OF CONTRAST ARE CREATED:

LIGHT BRANDING

Light branding in which the colour pigments of the uppermost peel layer are changed by the heat of the laser beam.



DARK BRANDING

Dark branding in which the laser beam leads to soot formation due to marginal burning, which, however, has no effect on the fruit







THE INTELLIGENT ECOMARK SOFTWARE

User-friendliness is EcoMark's top priority. After all, the customer should be independent in everyday life and be able to respond flexibly to every product and every labelling. Nowhere a new design can be implemented more quickly in labelling.

Trained employees can set up the machine independently for all new products and logos. The machine operator only has to press the start button. A changeover of production is possible within a few seconds.The **user-friendly software** allows another product to be called up with just a few clicks. This keeps your production flexible and guarantees optimum laser settings at all times.
Product **characteristics of fruit and vegetables** change, for example, due to ripeness, moisture content and age. Thanks to the EcoMark software, you can **react to these changes quickly** and easily.

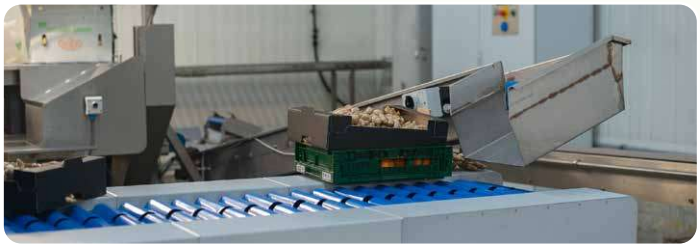
An evaluation of the production figures can be made at any time via the integrated statistics module. This facilitates the post-calculation. User rights can be freely defined. The "normal" user can only call up preset programmes. The setter also has access to all laser settings, for the definition of new products.
Since it is a modern Windows software, it is possible for an EcoMark employee to connect to the machine, **make settings and provide training remotely**. All product settings are stored in a database and can be easily backed up on the network or a USB stick. This way, important production data is never lost!

With our software, you can react quickly and easily to new factors (e.g. different degree of ripeness of the fruit), without long return times.

We make you an expert in handling the machine!

AUTOMATION AND INTEGRATION

Of course, we also look at the processes in front of and behind the machine. To maximise productivity, we enable further automation. For this purpose, we offer standardised or **customised supply and discharge systems**. In addition, all Natural Branding machines can be easily connected to and/or integrated into an existing production line. By palletising the branded fruit and crates downstream of the machine, we optimise the entire process and reduce the biggest cost driver, "personnel costs", to a minimum. This **saves time, money and maximises output**. Because our machine costs less per hour than an employee!



SPECIALLY MARKED SPECIAL OFFER GOODS

Flexible and fast means economical. Through natural branding, **marketing campaigns** are profitable for numerous occasions: pumpkin cutting patterns for Halloween, a Father Christmas ornament for oranges in December or an Easter bunny in April. Without the well-known lead times or additional costs, every customer request can be met individually and quickly. New **logos and texts can be imported easily in a matter of seconds**.









