



Application note



Confectionery Laser coding for candy products



The use of lasers to apply clean, crisp product information is common for high-end confectionery producers. However, the benefit of permanence is making laser marking an attractive alternative for all confectionery manufacturers, especially ones that export their products overseas.

The challenge:

Just like many other food product categories, applying product codes that last is important to confectionery manufacturers. For ink-based printing solutions, code durability is often achieved by using MEK or other strong-odor solutions that help deliver exceptional code adherence to product packaging. Confectionery manufacturers are wary of using these types of solutions, as the odor may seep into their confectionery product.

One popular option to ink-based solutions are wax jet printers that can place codes on a variety of packages without strong odor-based solvents. However, wax jet produced codes have permanence issues, especially when products are being shipped overseas. Vibrations that can often occur during shipping cause the packages to rub against each other and can lead to the code being removed or damaged. This can result in retailers receiving product without the necessary 'best-by' date and lot information.

Videojet advantage:

The Videojet 3330 CO₂ laser marking system provides crisp, permanent codes on a variety of confectionery packaging. The 30 Watts of power allows the printer to code products at line speeds of up to 900 meters per minute. In addition, the laser tube in the Videojet 3330 system is designed with a larger gas volume and has optimized air-cooling to provide operational life of over 45,000 hours. This laser marker also offers the Videojet CLARiTY™ controller, which reduces operator errors, helping to ensure products are coded correctly. Additionally, advanced productivity tools identify the root cause of downtime events to help in making sustainable process improvements.

Permanence of code without the odor of ink-based coding



Confectionery manufacturers typically invest considerable time and resources to help ensure that their packaging is eye-catching and appealing. This is increasingly important because nearly half of all consumers buy on impulse.*

High-end confectionery manufacturers are very conscious of the fact that industrial looking 'best-by' dates and other product information can detract from the overall image created by an elegantly designed package. As a result, many of these manufacturers utilize laser printers to create crisp, clean codes on their product packaging.

However, the benefits of laser printing for confectionery products is not limited to high-end confectioners and is being understood by manufacturers throughout the industry. This coding solution delivers permanence of code in a virtually zero odor solution.

Confectionery products such as chocolate are susceptible to odor absorption. For this reason, inkjet coding solutions that incorporate solvents such as MEK are not wanted, even though these inks provide strong code permanence. One popular coding option being used to avoid these odors are printers that utilize wax-based inks. Wax-based inks have no solvents and some of them are FDA approved to apply directly on food.

Unfortunately, code permanence can become an issue for codes created with wax-based inks, particularly when the product is shipped overseas. The vibrations typically created during transportation force the products to rub against each other, usually resulting in the codes fading away and becoming illegible. When the retailer receives the shipment, the lack of a 'best-by' date and other production information prevents them from being able to place the product on the shelf without manual intervention such as applying labels.

As a result, confectionery manufacturers need a coding solution that does not give off strong odors yet offers code permanence. And just as important, they need a solution that can keep up with their fast production line speeds. For instance, it is not uncommon for large confectionery manufacturers to produce 300 to 600 units per minute.



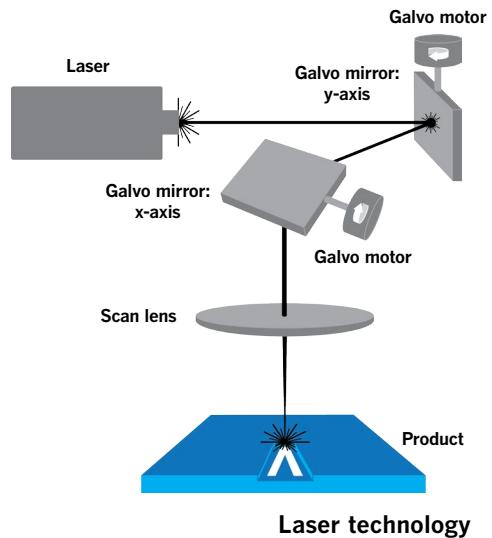
* Mintel report, Sugar, Confectionery and Breath Fresheners, Dec. 2014



Enter the Videojet 3330 laser coder

The Videojet 3330 is a 30-Watt CO₂ laser marking system that provides just the right power to be able to handle the fast line speeds. Other types of lasers, such as fiber systems, are not well-suited for confectionery products, as they tend to burn right through the packaging material. Inherently ink and fluid-free, lasers don't have the same concern of ink odor and its potential to affect the taste of uncovered product.

The Videojet 3330 incorporates an air-cooled laser source which virtually eliminates maintenance intervals. The system also delivers maximum performance and extended laser source life expectancy up to 45,000 hours through optimized total power output. Complete system flexibility is provided from 21 mark window options, 3 marking heads, 13 lenses and 3 wavelengths choices. The optional CLARiTY™ user interface offers built-in software features that reduce operator errors, and help ensure products are coded correctly.



CO₂ laser systems

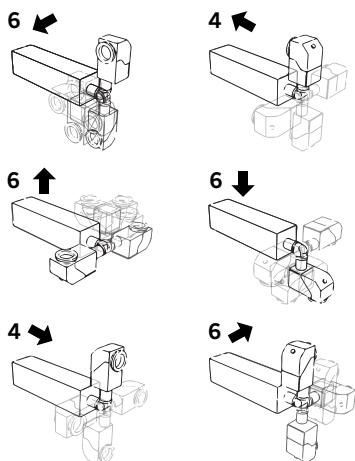
Over 20,000 standard configurations deliver flexibility to fit your line with minimal disruption:

- 32 Marking head positions
- 21 Mark windows
- 3 Wavelengths
- 2 IP ratings for marking units (IP54, IP65)
- 3 Detachable umbilical lengths
- 2 Power options (10-Watt or 30-Watt)



Positioning the beam where needed

= 32 standard beam delivery options for marking head positioning



The bottom line

Confectionery manufacturers are demanding coding solutions that offer the best of all worlds: no odor, permanence and fast line speeds. The Videojet 3330 laser marking system is a great choice for confectionery manufacturers demanding a flexible coding solution. And, backed by the industry's largest support network, the Videojet 3330 is an ideal solution for marking complex codes to meet confectionery requirements.

Let Videojet help you select the right solution to meet your production objectives and performance needs.

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