



Application note



Egg

## Continuous Inkjet vs. Laser for egg coding

### The challenge:

The two primary ways to print traceability and marketing information on shell eggs are Continuous Inkjet (CIJ) and laser.

The vast majority of egg coding today is done in Europe, and nearly all the printing is done with CIJ. But some believe that laser may be a viable option for coding in the future.

So which technology is best?



### The Videojet advantage

Videojet is a world leading manufacturer of CIJ and laser printing equipment. Our printing solutions are designed to provide unrivaled uptime to ensure the highest level of productivity in your operation. Videojet solutions have been in operation for many years and code on billions of eggs every year.

Videojet develops and manufactures its own inks to ensure the best print quality and compliance with regulations.



# Comparing CIJ and laser coding

The optimum solution for egg coding depends on the following six factors. Let's compare CIJ and laser egg coding for their safety, cost, simplicity, and performance to determine which is the best solution for egg coding.

## Egg integrity

How does marking affect the egg?

### Continuous Inkjet



CIJ deposits ink on the surface of the egg and poses little risk to the integrity of the egg's surface because the drying process bonds the ink to the shell.



### Laser



Laser marking is a process of ablation, where the laser etches the top surface of the egg. It 'bleaches' the surface of brown eggs and darkens the surface of white eggs.



## Integration

Integration with the grader and its control system is critical to a successful installation. The model and age of the grader will determine the extent to which the printers can be integrated with the grader controller.

With CIJ on a compatible grader, the operator can control all printers from a central location at the grader. Laser printers require a printer interface which isn't directly controlled by the grader.

Installing one CIJ printer per track just after the transfer area provides 100% printing coverage with the fewest number of printers. Because CIJ printheads are smaller and faster than larger laser printers, they can be placed in the tracks where they have a size and speed advantage over laser.

Laser printers can be installed in the tracks if there is enough room, and if there isn't a lot of information being printed. Lasers can also code the eggs in the packing lane just before the carton is closed. This solution requires multiple lasers per carton to code all of the information in a few seconds before the carton is closed.



## The bottom line

Choosing the best egg coding technology depends on your overall grading needs and which coding solution has the fewest trade-offs for these needs.

While most of the world uses CIJ for its simplicity, easy integration, and passive coding nature, the best solution depends on your application. Laser's major benefit over CIJ is its print quality.

Make sure that the solution meets your customer's needs and complies with the laws that apply to them, especially for export eggs. Getting customers involved in the decision making process will help them understand the various options they have with respect to egg coding.

Videojet recommends CIJ for its speed, ease of integration, permanence and safety to the egg. It is a proven leader with a number of proven solutions for either technology. Let us help you gather the information needed to make the best solution for your application.

Ask your local Videojet representative for assistance on how to specify and design an egg coding system that will perform reliably for years to come.

Call **800-843-3610**  
Email **info@videojet.com**  
or visit **www.videojet.com**

Videojet Technologies Inc.  
1500 Mittel Blvd. Wood Dale IL 60191 / USA

©2015 Videojet Technologies Inc. — All rights reserved.  
Videojet Technologies Inc.'s policy is one of continued product improvement.  
We reserve the right to alter design and/or specifications without notice.  
Printed in U.S.A

