

Ink Jet.  
Laser.  
Thermal Transfer.  
Labelers.  
Track & Trace.  
Supplies.  
Parts & Service.

## Marking, Coding and System Solutions Egg Industry



In-Line • On-Carton • In-Packer • On-Case

### What our customers are saying:

*"We are very happy with the Videojet 1610 printer due to its coding ability and high stability. Therefore, we have continued to buy 1610 printers for our second Moba line and for updating our older printers. We are looking forward to working with Videojet in the future as we continue to grow."*

Mr. Luo Gang, General Manager  
Sundaily Manufacturing Center

# CODING

## in the Egg Industry

The codes on your eggs and cartons represent your promise of quality and freshness. Clear, reliable codes support retail efficiency, product traceability and consumer confidence. Deliver the distinctive codes your brand reputation deserves.

**Videojet understands your challenges and delivers consistently reliable performance to exceed your production requirements.**

### Safety and traceability

#### YOUR CHALLENGE:

New regulations, changes in consumer preferences, food safety concerns and retailer demands combine to place increased stress on your business.

#### THE VIDEOJET SOLUTION:

Many billions of eggs are coded every year in Europe using Videojet printers, with reliability that allows producers to focus on other business challenges.



### Uptime and profitability

#### YOUR CHALLENGE:

Unplanned downtime causes unwanted disruptions in production efficiency, and increases unprofitable labor expenses.

#### THE VIDEOJET SOLUTION:

Our printers are designed to run longer and more reliably, with quicker and easier serviceability; optimizing productivity and Overall Equipment Effectiveness (OEE).



**Videojet understands your challenges and delivers consistently reliable performance to exceed your production requirements.**

### Grader integration

**YOUR CHALLENGE:**

Slowdowns, disruptions, and operator intervention in the grading operation cost time and money, and can lead to rushed mistakes.

**THE VIDEOJET SOLUTION:**

Optimize your production with custom coding solutions designed by Videojet in partnership with world-leading grader manufacturers to address your unique needs.



### Brand distinction

**YOUR CHALLENGE:**

Competing for consumer loyalty while balancing financial challenges can seem daunting and overwhelming.

**THE VIDEOJET SOLUTION:**

We can help you promote your brand by printing directly on your eggs, while improving coding quality to increase the convenience and appeal of your products.



**Accurate, consistent, dependable:**

# VIDEOJET



# CODING TECHNOLOGIES

Videojet offers a full suite of coding solutions that reliably, safely and efficiently meets the demands for accurate coding on eggs, cartons and cases.



## Continuous Ink Jet (CIJ)

Fluid based, non-contact printing of up to five lines of text, linear and 2D bar codes, or graphics, printed on a wide variety of packaging or on stationary packaging via traversing systems.



## Thermal Ink Jet (TIJ)

Ink-based, non-contact printing using heat and surface tension to move ink onto a package surface. Generally used to print 2D DataMatrix and other bar codes.



## Laser

A beam of infrared light focused and steered with a series of carefully controlled small mirrors to create marks when the heat of the beam interacts with the packaging surface.



## Thermal Transfer Overprinter (TTO)

A digitally-controlled printhead that precisely melts ink from a ribbon directly onto flexible films to provide high-resolution, real-time prints.



## Label Printer Applicator (LPA)

Printing and placement of labels of various sizes on multiple package types.



## Large Character Marking (LCM)

Ink-based, non-contact printing of multiple data types (e.g. alphanumeric, logos and bar codes) in large sizes primarily used for secondary packaging such as cases.

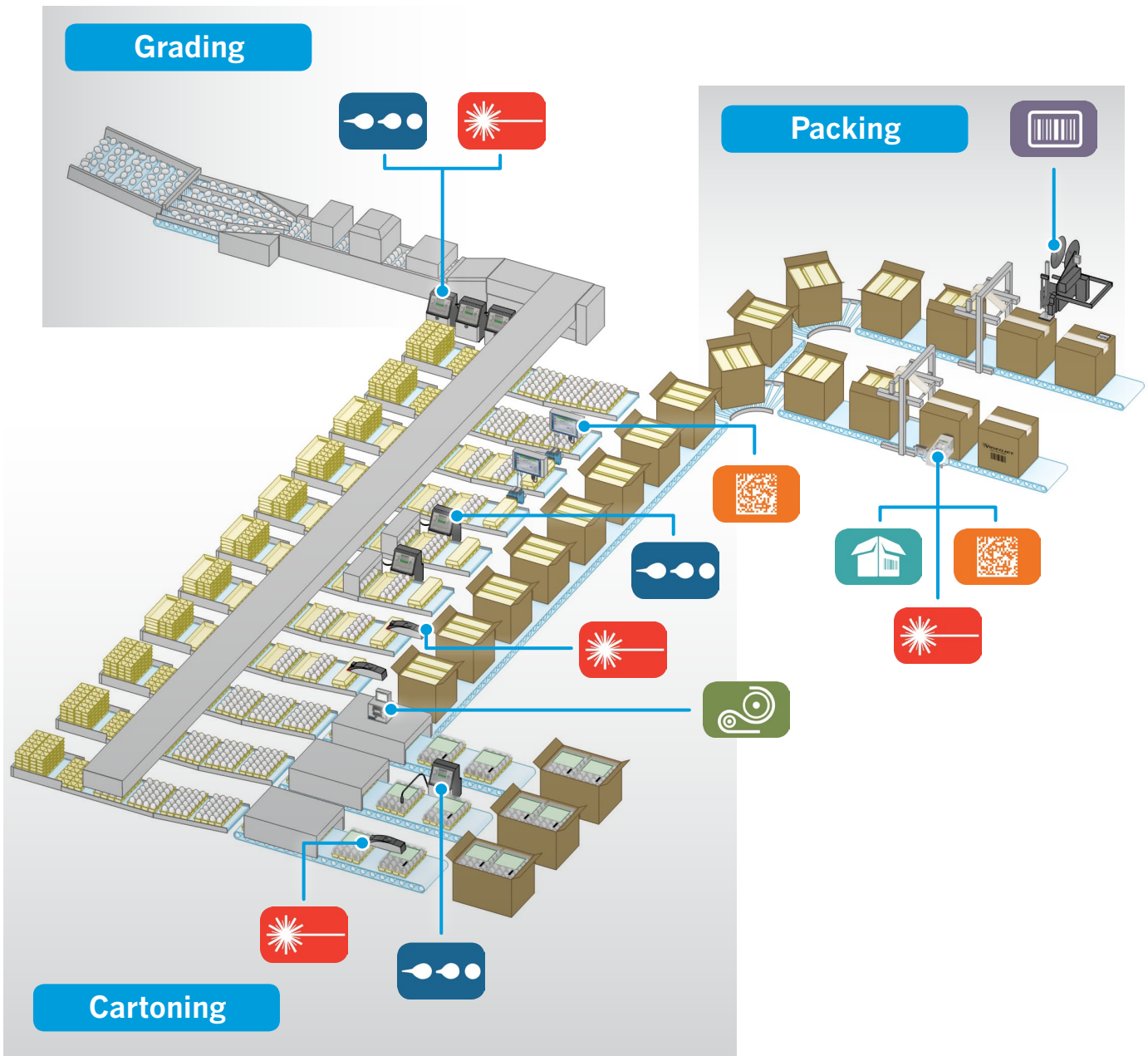
Coding technologies for your egg-coding application:

Printing Application	CIJ	TIJ	Laser	TTO	LPA	LCM
Egg coding, in-line	✓		✓			
Egg coding, at packer	✓		✓			
Carton coding	✓	✓	✓	✓		
Case coding		✓	✓*		✓	✓

\* With use of Datalase patch

# YOUR CODE, YOUR LINE

Videojet offers multiple flexible coding solutions that can integrate at each stage of your egg-grading, cartoning or packing operation. The best solution is shaped by your specific needs and your production environment; Videojet's product and support teams can help you achieve that solution.



# IN-LINE EGG CODING

Best-by dates, tracking information and brand information visible right on the egg deliver real benefits: they give the consumer the highest possible product confidence; they help ensure that traceability information follows the egg even when it's removed from the carton; and they give producers a perfect vehicle to build product loyalty with customers. Videojet has high-performance in-line coding solutions for your production environment.



## Suggested Technologies



### Continuous Ink

#### Jet (CIJ)

is an ideal technology for in-line coding **directly on eggs**. It is the cost-effective solution because it requires the fewest printers, and the **most efficient** as printers are integrated with the grader for direct controlling from the console. CIJs also utilize food-grade ink specially formulated to safely adhere to egg shells.



### Laser marking **does**

**not use ink.** Instead,

it microscopically

etches the surface of the egg to create a **permanent imprint**. With laser marking, code **clarity** is less affected by moisture on the egg. Laser coding is a technology being implemented as an alternative to ink coding because of its **improved print quality**.

## Marketing Opportunities

The safety and authenticity of eggs are persistent concerns in all regions of the world. Getting consumers to appreciate eggs as more than a commodity holds the key to greater loyalty and improved demand. Printing brand and egg information directly on the egg provides producers with an opportunity to improve brand differentiation and consumer loyalty through a clearly visible commitment to quality and safety.

**CODE LOCATIONS AND ORIENTATIONS** Videojet egg-coding technology delivers flexibility and excellent results across many shell-printing locations and message configurations. The optimal solution will depend on your grading equipment and printing requirements.

### Locations to Print on Eggs



#### **Pole-to-Pole**

Eggs are printed in-line after the grading process and before entering the packing lanes. This is the most common way to print on eggs because it's the most cost effective method. The eggs move quickly, so they typically receive two lines of text information. Printing logos is also an option.



#### **Face**

Printing across the face of the egg can be done in the packaging area after the eggs are in the cartons. The eggs are not moving at this point, so the print quality is better than in the in-line approach, and multi-line printing is easier. This approach requires additional equipment to position and print the eggs.



#### **Top**

Printing on top of the eggs can be accomplished in-line for certain graders. Due to the egg's curvature, the amount of text printed on top is slightly less than pole-to-pole printing. The key advantage to printing on top of the eggs is that information is easily visible to the consumer.

# CODING ON EGG CARTONS

Printing on the egg carton is the optimal way for retailers to manage inventory easily, for consumers to check freshness quickly and for regulatory bodies to identify products during a recall. Videojet technology assures the benefits of this method, producing clear, crisp and legible information that benefits every level of the supply chain.

## Suggested Technologies



### Continuous Ink Jet (CIJ)

is a simple and reliable way to print on paper, plastic, foam cartons and shrink-wrapped egg trays. Videojet's 1000 Line printers incorporate the CleanFlow™ printhead, a patented design that increases uptime by reducing ink buildup. CIJ is a non-contact printer, making it a reliable solution for printing legible traceability codes.



### Laser printing on egg cartons offers many advantages.

It delivers excellent character and logo print quality, with more permanence and no mess. It can also print across the top of an egg carton in multiple locations, even when the carton is stationary on the line.



### Thermal Ink Jet (TIJ)

is a high-quality ink-based printing solution for porous carton materials like paper. It also has the advantage of printing at a higher resolution than other ink-based systems.



### Thermal Transfer Overprinter (TTO)

prints on overwrapped plastics prior to its application around a flat of eggs. A TTO produces high-quality codes using a ribbon-based printing system that also produces superior bar codes.

## Planning for the Future

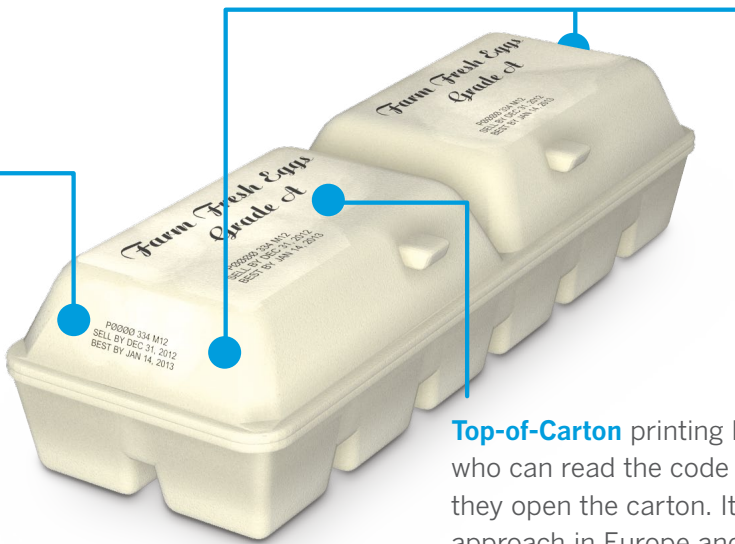
Egg carton packaging is changing as retailers try to attract consumers to more beneficial eggs. Carton design is also advancing as the simple package is being improved to provide better protection and egg coding visibility to minimize consumer interaction with the eggs. Coding solutions designed to perform well across a wide range of packaging styles and materials give the producer freedom to adapt to future changes.



**ON-CARTON CODING LOCATIONS AND MATERIALS** Today's egg cartons offer several locations for coding that meet consumer and retailer needs for important information. Videojet offers proven solutions for all code options and production requirements.

**Locations to Print on An Egg Carton**

**Single-End Printing** involves mounting the printer to the packing lane frame and mechanically guiding the cartons for optimal print quality.



**Two-End** printing is employed on split cartons, with two printers installed directly opposite each other for simultaneous printing.

**Top-of-Carton** printing helps the consumer, who can read the code information when they open the carton. It is the most common approach in Europe and is often deployed when printing on flats. Printing on the top of split cartons, will require printing the information on both halves of the carton.

Printing technologies deliver distinct levels of print quality and legibility on each kind of carton material. Here are the options:

Carton Material	CIJ	TIJ	Laser	TTO
Plastic	••		•	
Foam	•••	•	•	
Paper/pulp	•••	•••	••	
Label (paper)	•••	•••	••	
Shrink wrap	•••			•••

••• Excellent print quality and image legibility    •• Good print quality and image legibility    • Satisfactory print quality and image legibility

# CASE CODING

Legibly and accurately identifying cases simplifies the efficient movement of goods through the supply chain. There are multiple solutions, ranging from simple text information printed directly on the case to high-resolution labeling applied automatically. The right solution will depend on your needs; Videojet has a solution to meet your specific requirements.



## Suggested Technologies



### Label Printer Applicator (LPA)

is the standard way to identify product for delivery to trading partners, and automated labeling solutions can significantly reduce mislabeling and poor readability for optimum routing and tracking. Automatic application of labels on-demand to cases is faster and more consistent than hand-labeling and prevents applying the wrong label.



### Large Character Marking (LCM)

prints directly on the case and is very **cost-effective** and **dependable**. It eliminates the cost, stocking and management of labels, as well as the need for customer-specific pre-printed cases, as LCM **economically prints** variable information directly on the case, including **scannable bar codes**.



### Thermal Inkjet Printing (TIJ)

is used in high resolution printing directly on the case. Its **high resolution** printhead is **ideal** for printing on display ready cases and can print a **variety** of bar code types to comply with retailer supply chain **requirements**.

## Improve Supply Chain Efficiency and Save Money

Printing lot, batch and supplier-specific information clearly on the egg case creates a traceability point visible to the retailer, wholesaler and transportation company – providing rapid identification in case of recall. Printing this information directly on the case simplifies packaging demands by standardizing to a common box style for different trading partners.

# VIDEOJET INKS

Each option for coding on eggs and on cartons presents distinct demands for formulation and performance. Videojet's inks are proven in every coding context.

## Egg Shell Coding

To ensure crisp legibility, food-grade ink for shell coding must adhere to damp, recently washed eggs and dry quickly to prevent smearing and spreading across the shell. In addition, the ink must adhere permanently once dry and remain legible after boiling.

Videojet has been producing food-grade inks for more than two decades in our ISO9002-qualified Food-Grade Ink Production Facility.



## Egg Carton Coding

Carton-coding requires a precise match between ink formulation and printer specifications. That's why Videojet employs a strict process to develop ink and make-up fluids, involving rigorous testing in extreme temperatures and environmental conditions.

The result is specific inks that deliver high performance on paper, plastic or foam cartons across multiple color options.



## The Importance of Egg Ink

Food-grade inks are critical for compliance with specific regulatory standards. Most countries require that inks are composed of ingredients that are approved for food and are blended in a manner that is food-safe. Furthermore, it is important that the inks are produced in facilities that are Good Manufacturing Practice-compliant and have instituted an acceptable HACCP system, with processes that ensure that the inks remain consistent batch after batch, for food safety.

# VIDEOJET PRODUCTS

These are just a few Videojet products that are ideal for coding in the egg industry.

## Continuous Ink Jet (CIJ)



CIJ is ideal for printing on eggs and cartons, as these high-speed printers integrate well with all major graders and operate at the highest production rates. CIJ also uses food-grade inks.

### Suggested Solution:

Videojet's 1620 CIJ produces clear codes and eliminates ink mishandling by using fool-proof ink cartridges, helping to ensure the right ink is placed on the egg.

## Laser



CO<sub>2</sub> laser printing systems simplify the process and improve the appearance and readability of egg carton printing by permanently etching the carton without physical contact or need for extra supplies.

### Suggested Solution:

Videojet's 3320 Laser Marking System can print on paper, foam and PET plastic cartons. The 3320 has a large print area that is capable of printing codes across the top of split cartons.

## Thermal Inkjet (TIJ)



TIJ is ideal for printing high-quality text and bar codes on paper egg cartons, assuring easily readable date and a lot of information for all downstream partners and consumers. TIJ is not used for printing on eggs.

### Suggested Solution:

The Videojet 8510 Small Character TIJ printer delivers high-resolution prints and bar codes. Its compact design is intended for industrial users, and the menu-driven user interface and flexible communications options make it simple to configure and use.

# VIDEOJET PRODUCTS

## Thermal Transfer Overprinter (TTO)



TTO solves the challenge of consistent print quality on the uneven surfaces of shrink-wrapped egg flats. It uses a ribbon to print on the wrap prior to application to the flat, ensuring bold, easy-to-read and permanent date and lot codes.

### Suggested Solution:

Videjet's Dataflex Plus printer combines high-resolution printing and ribbon-saving technology to produce highly legible codes and minimal waste.

## Large Character Marking (LCM)



LCM makes pre-printed cartons and labels unnecessary by printing supply-chain information directly on the corrugated egg cases – simultaneously saving time and greatly minimizing errors associated with hand-labeling.

### Suggested Solution:

Videjet's 2300 line of printers are ideal for carton-coding applications. Through our patented micropurge process, the printhead is automatically cleaned and maintained – ensuring consistent, legible codes.

## Label Printer Applicator (LPA)



When your customers demand labels or you are using darker corrugate cases, an LPA automatically applies labels to cases to ensure high accuracy and production efficiency, and better retailer compliance.

### Suggested Solution:

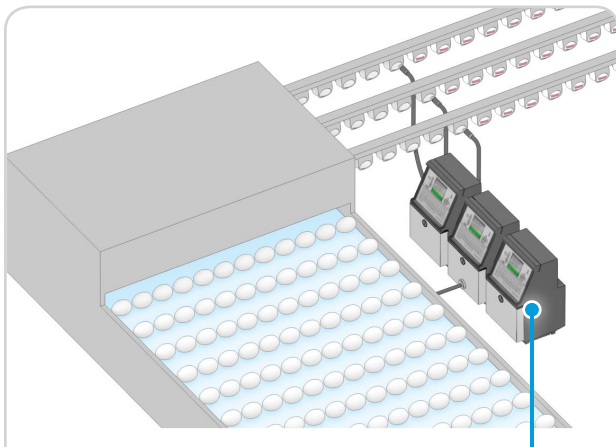
The P3400 Label Printer Applicator is designed for tough industrial environments, making it extremely capable in countless applications.

# IN-LINE EGG CODING

Partnership with the grader manufacturer is crucial for an effective printer integration and printing process. Videojet works closely with the leading grader manufacturer to develop solutions that integrate seamlessly to meet your expectations.



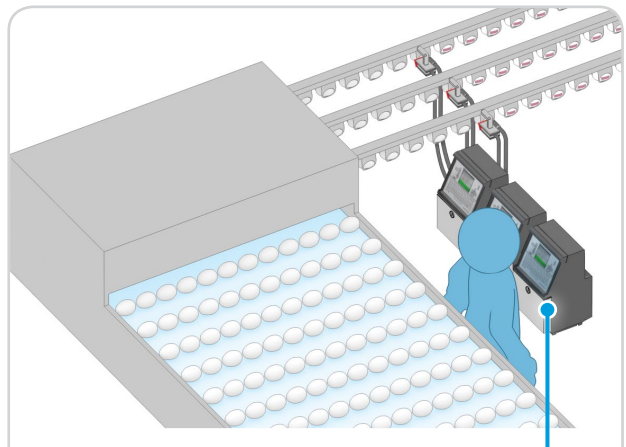
## Integrated



In an integrated solution, the grader controls various aspects of the printing process. The more the grader controls, the lower the likelihood of user error and the greater the printing flexibility.



## Standalone



In a standalone solution, the printers will print on an egg when it's detected in front of the printhead. This method allows egg coding on older grading equipment but relies on the operator to actively manage the printing.

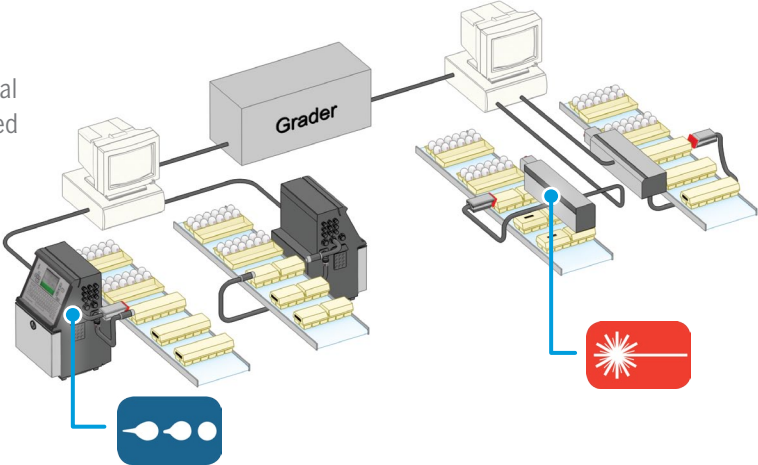


Printing Process	Message Creation	Job Selection	Varies Code Per Egg
Fully integrated	Grader	Grader	Yes
Partially integrated	Printer	Grader	Yes
Standalone	Printer	Operator at printer	No

# CARTON CODING

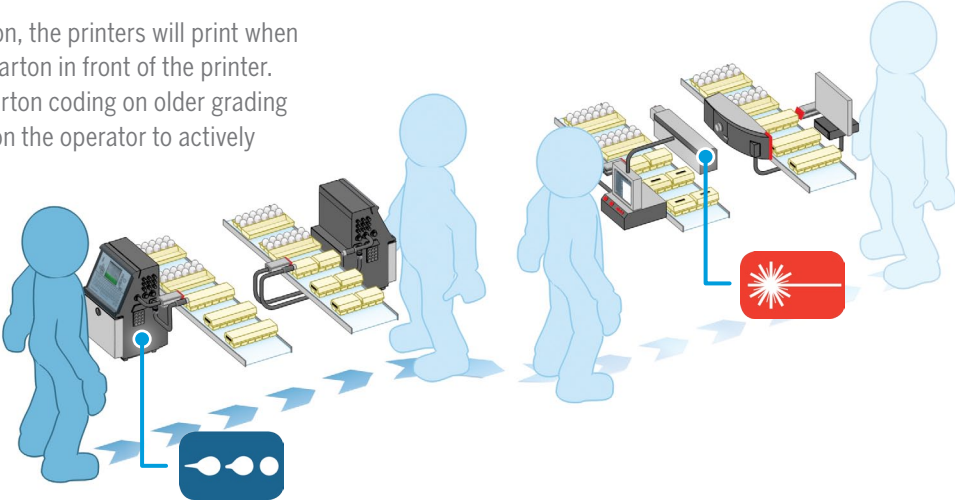
## Integrated

In an integrated solution, the grader controls various aspects of the printing process either directly from the grader or through an additional computer. In either case, when jobs are changed on the grader, the printers will adjust accordingly. This reduces both operator intervention and printing errors.



## Standalone

In a standalone solution, the printers will print when the sensor detects a carton in front of the printer. This method allows carton coding on older grading equipment but relies on the operator to actively control the printing.



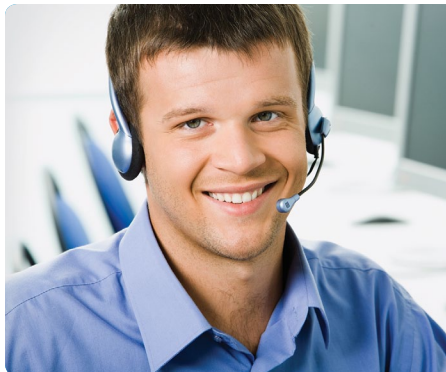
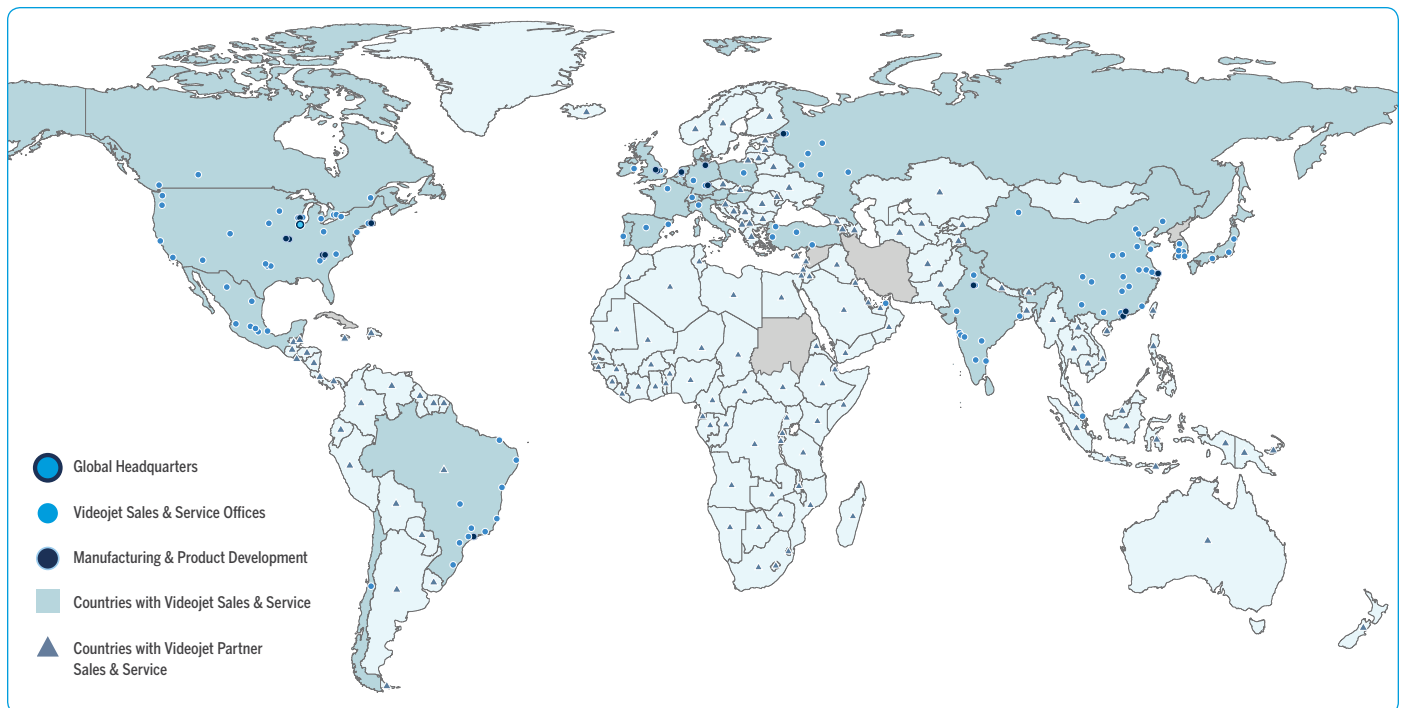
Printing Process	Message Creation	Job Selection	Varies Code Per Egg
Integrated	Grader or printer	Grader	Yes
Standalone	Printer	Operator at printer	No

## Satisfying customers worldwide for over 30 years

The Uptime Peace of Mind® brand promise represents Videojet's commitment to providing the right coding and marking solutions, with the most uptime and lowest cost of ownership. With more than 285,000 units installed worldwide, Videojet's complete line of industrial coders and supplies produces reliable codes at today's production line speeds.

## The largest field service organization in the industry

Videojet solutions are supported by over 3,000 employees in 26 countries and a global network of distributors. Partner with Videojet for training, maintenance, genuine Videojet parts, and superior customer service, anywhere in the world.



### Best-in-class support for maximum uptime

When you partner with Videojet, you can expect:

- ✓ Seasoned service and support professionals providing prompt on-site service and local support.
- ✓ Your choice of flexible programs and service agreements for preventive maintenance visits, checkups, operator training, on-site service, supplies, equipment rentals and extended warranties.



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