Marking, coding and systems solutions

Dairy

VIDEOJET

Changing packaging designs... expanding product flavours... increased production changeover.... short product shelf life... critical focus on cleanliness and product safety... all of which increase pressure on production efficiency and the importance of accurate product expiry and tracking information.

With more than 40 years of experience, Videojet printing and Code Assurance solutions help you accurately and legibly identify your dairy products.

Efficiency matters.

Meet your production, regulatory and branding needs with reliable printing solutions.

Videojet is a leader in providing marking and coding solutions to the dairy industry.

Accurately and legibly printing expiry and production information on the increasing variety of dairy packaging containers is important to communicate the freshness and safety of your products. Videojets solutions offer the following advantages:

Uptime advantage

Keep your lines running efficiently and longer between planned and unplanned stops, by integrating the optimal product from our extensive line of printing solutions. Our inkjet printers incorporate self-cleaning technology that minimises clogging of the printhead, even when traversing.

Built-in productivity

Our coding solutions help enable you to maximise your line's performance and productivity. This gives you the freedom to spend more time on other more important aspects of your business and less time in mastering and maintaining our technology.

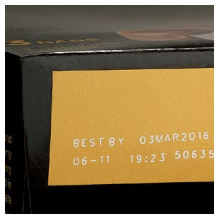
Code Assurance

CLARiSUITE™ software enables centralized print information management and printing control, moving responsibility off the production floor. CLARiSUITE™ can synchronize printing from primary packaging to case and pallet identification.

CLARiSUITE™ further helps lower costs, reduce errors and protect your reputation with our Code Assurance solutions. Code Assurance minimises and mistake-proofs operator inputs to the coding and marking process.

Simple usability

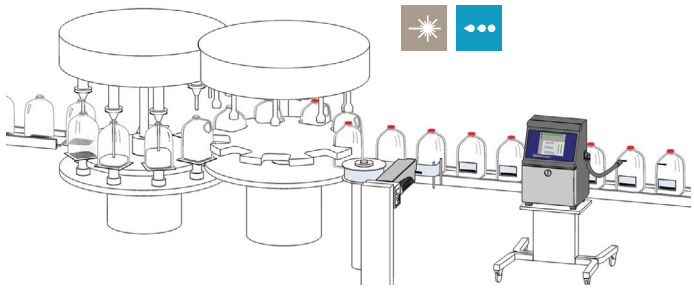
Videojet products are designed for accurate integration, ease of use, and rapid maintenance and service. With intuitive setup wizards, easy code entry, and simple system status, your operators will make fewer errors and have an easier time working with the printers.



Expertise for seamless integration

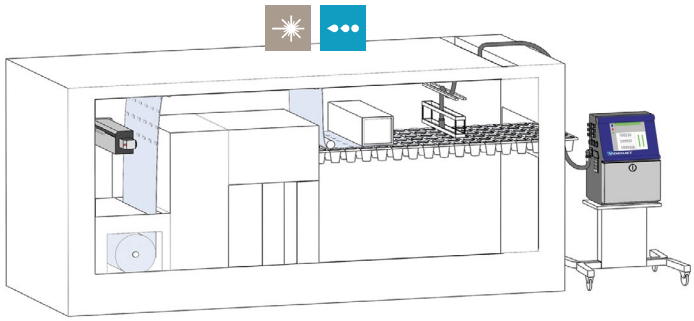
Liquid fill

Filling jugs, bottles or aseptic containers is all about speed and efficient, fast product changeover; the optimum coding location will depend on your product. Our years of experience integrating into filling systems and creating custom integrations means we can create solutions to meet specific application needs.



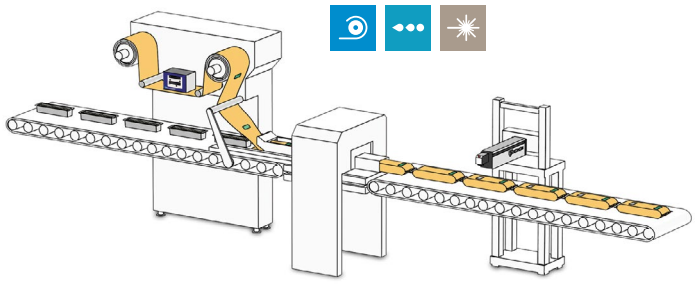
Cup filling

Cup filling has the unique production attribute of having multiple items being filled simultaneously and requires a printing solution that can rapidly print on multiple items at virtually the same time. For traceability requirements, it's important to know which cup in which lane the product is filled and to print that information. With Videojet solutions you can accurately print date, time, lane, best by, facility information as well as have the printer alert the filler control system if an item hasn't been printed.



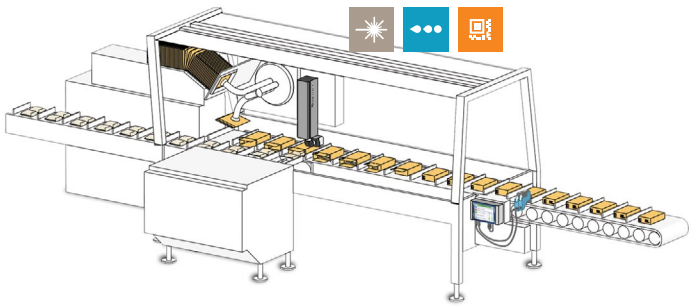
Flow wrapper

The flexible nature of this packaging solution and the filling speed make coding a challenge. Many producers prefer coding on the film prior to fill to get the best print quality because the film is being controlled. Our extensive relationships with flow wrapper manufacturers helps ensure built-in integration. However, coding after filling can simplify integration and lets you easily share printers between lines. Videojet coding solutions can excel in either scenario.



Cartoning

Integrating the printer into the cartoner helps ensure the best print legibility and print location accuracy, because the carton is accurately controlled as it's being filled and printed. Also, in-cartoner integration helps protect the coding equipment from accidental damage and misuse. Our extensive accessory options are designed to achieve the best integration possible. Downstream coding often occurs in production environments where printer mobility is highly valued.



Continuous Inkjet (CIJ)
Fluid based non-contact printing of up to five lines of text and 2D box codes or graphics, printed on a variety of packaging types, including stationary packaging via traversing systems.

Laser Marking Systems
A beam of infrared light focused and steered with a series of carefully controlled small mirrors creates marks where the heat of the beam contacts with the packaging surface.

Label Printer Applicator (LPA)
Prints and places labels of various sizes on multiple package types.

Thermal Transfer Overprinting (TTO)
A digitally controlled printhead precisely marks ink from a ribbon directly onto flexible film to provide high resolution, real time prints.

Large Character Marking (LCM)
Ink-based, non-contact printing of multiple data types, including alphanumeric, logos and bar codes, in large sizes primarily for secondary packaging, such as cases.

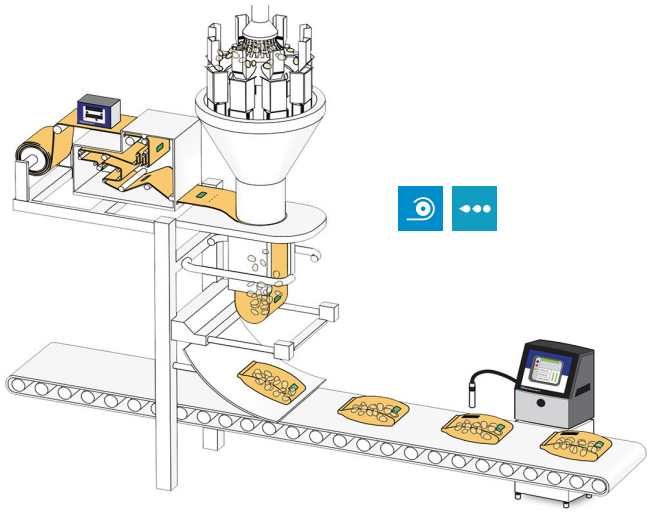
Thermal Inkjet (TIJ)
Ink-based non-contact printing using heat and surface tension to mark onto a package surface. Generally used to print 2D DataMatrix and other bar codes.

Coding technologies for your packaging type:

Printing application	CIJ	Laser	LPA	TTO	LCM	TIJ
Jugs, bottles, aseptic containers	✔	✔		✔		
Rigid plastic containers and film lids	✔	✔				
Paperboard cartons	✔	✔				✔
Bags, pouches and films	✔	✔		✔		
Metal cans	✔	✔				
Glass bottles and jars	✔	✔				
Cases, cartons, and shrink wrap		✔	✔		✔	✔

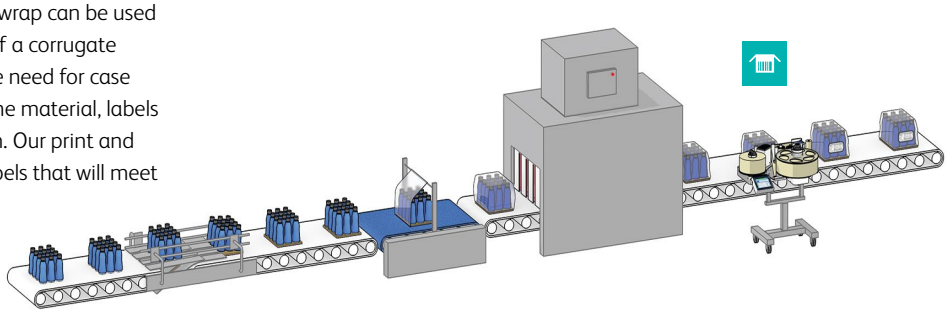
Vertical form fill seal

Similar to flow wrapping, the flexible nature of this packaging makes coding a challenge. Many of these containers are designed for multiple uses with re-closeable seals. Printing on the film prior to fill produces the best print quality, and thanks to our extensive OEM integration capabilities, you're assured of an efficient and cost-effective solution.



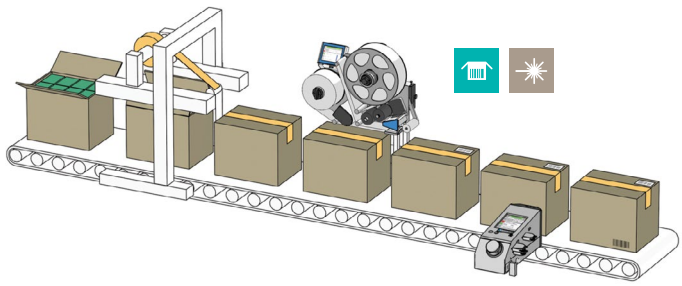
Shrink wrapper

The simple combination of plastic and heat has created one of the most versatile packaging means available. Shrink wrap can be used to bind products together and with the addition of a corrugate base, can offer stability that usually eliminates the need for case packaging. But due to the non-porous nature of the material, labels are used to convey important product information. Our print and apply label solutions can offer you high quality labels that will meet the needs of your distribution chain.



Case packers and sealers

Legible and accurate identification of your cases and their contents simplifies product movement through the supply chain. Our solutions can help you eliminate dependence on pre-printed cases by printing brand, product, and expiry information directly on the cases, or automatically labelling and identifying your cases.



Jugs, bottles, and aseptic containers

Production flexibility

Packaging designs are changing to improve transportation costs, to better utilise retail shelf space, and to attract consumers with colourful and informative package decoration. The dairy industry is working hard to increase demand for liquid products through an expanding flavour range and eye-catching packaging styles[1]. However, more imaginative designs and varying container sizes lead to more products run during a shift, more changeovers, and less room to print expiry and production information.

Videojet can help you stay ahead of these production challenges. Our commitment to high quality, high-speed coding solutions extends beyond the printing hardware. Our extensive ink research and global ink manufacturing facilities help ensure the highest quality CIJ solutions. Our CLARiSUITE™ software solution focuses on error-proofing coding by managing the creation, selection and printing of your codes.

Continuous Inkjet (CIJ)

- CleanFlow™ printhead stays cleaner longer, for improved uptime [2]
- IP65 rating for washdown environments
- Wide range of both dark and coloured inks for maximum contrast
- Ideal for both direct-to-plastic and label printing
- Plant air not required which helps lower costs and makes moving your printer easier

Laser Marking Systems

- Permanent expiry and production information coded onto labels and sleeves
- Limited consumables needed, helping to increase uptime and lower total cost of ownership
- Plant air not required for laser cooling, saving money and simplifying operation
- High contrast printing on different substrates

Thermal Transfer Overprinter (TTO)

- High quality print direct on label or sleeve prior to application on container
- Coloured ribbon to increase code contrast, making it easier to read
- Ideal for on-demand bar coding
- Ribbon cassette simplifies and shortens the time for a ribbon reload
- Long-length ribbons enable extended run times with fewer ribbon changes

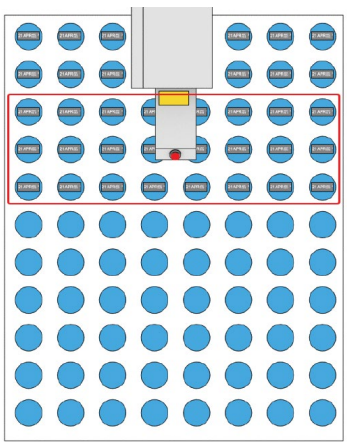
[1] Euromonitor packaging database. Based on 2012 package type estimates.
[2] Printhead tests were conducted by a third party. Tests were performed on a Videojet 1520 printer with the same CleanFlow™ printhead design as other appropriate 1000 Line printers, in an accelerated test environment, which increases the speed of the ink buildup by using an electric charge. See www.videojet.com/us/printheadtest for information. Actual results in customer environment may vary.

Rigid plastic containers and film lids

High efficiency

With the rapid growth of single-serve, on-the-go dairy products around the globe, the simple plastic cup has been transformed into a highly stylized container to differentiate flavours and brands. Keeping up with this packaging evolution can be challenging, especially as brand owners prefer to print in the same location on every container for consistency and retailers demand variety packs as they cater to consumer preferences.

There are, however, opportunities to improve printing expiry and production information and to simplify production. Videojets laser solutions have been integrated into rigid plastic filling lines to code directly on the lids that seal these containers. Our lasers' high efficiency means we can repeatably print high quality expiry and production information at lower power, extending the laser's life. To further improve efficiency, our laser marking solutions incorporate the widest variety of marking windows and focal distances in the industry. We can quickly and accurately print on more items simultaneously with one laser, helping you save money and improve your overall total cost of ownership.



Videojet's large laser mark field can simultaneously print expiry information across multiple lids

Laser Marking Systems

- Print directly on the material for a high quality, permanent code
- Applying DataLase® laser receptive coating inks to the label shortens printing time for higher throughput
- Large mark field enables printing across multiple lids with single laser, simplifying installation and service, and contributing to lower acquisition cost

Continuous Inkjet (CIJ)

- CleanFlow™ technology reduces the need to clean the printhead, even in traversing applications
- Ultra high speed system for high throughput or higher print quality
- Can be integrated into multiple simultaneous fill with traversing unit
- Pigmented inks offer strong contrast against a variety of container colours

Paperboard cartons

Proven simplicity

Printing on colourful, varnished cartons is not easy and is further complicated when dealing with the cool temperature of dairy products like ice cream or butter. Some producers have tried to overcome these challenges by printing the expiry and production information on the bottom of the container before fill, but that's not very consumer-friendly.

Videojet can help you overcome these issues. Producers that favor ink-based printing solutions are utilising our cool temperature inks that cut through condensation; and our pigmented inks produce high-contrast information directly on the container. Our laser or thermal inkjet printing solutions will help match the expiry code styling with your product's branding. This production information is printed at higher resolution and often higher contrast, making it easier for your consumers to read.

Continuous Inkjet (CIJ)

- Printed information adheres to virtually all common carton materials including those with aqueous overcoats and other varnishes
- Coloured inks can be used to create contrast on different coloured cartons
- Can be integrated into traversing system to print across multiple items

Laser Marking Systems

- Print text, bar codes or images while utilising virtually no consumables
- Print quality can match your product branding
- High contrast expiry and product information are delivered by the laser, removing the top layer of carton ink to expose the layer underneath
- Ideally suited to cool environments

Thermal Inkjet (TIJ)

- High quality, high resolution printing without the need for a knock-out area on the carton thanks to inks that have strong adhesion on non-porous and porous surfaces
- Superb ink adhesion on porous surfaces
- Easy to integrate into packaging line for printing downward or laterally

Bags, pouches and films

Great print legibility

The popularity of flexible film packaging is growing in the dairy sector, and printing accurate lot and date codes can be a challenge because of production speeds and material smoothness. Brand owners are working hard to create innovative new products to better meet the tastes of new consumers, while production teams are challenged to keep lines running across multiple product changeovers.

Videojet has several printing solutions that can be integrated directly into your filling systems and can be data integrated into your production processes. Our engineering teams work closely with leading packaging equipment vendors to create efficient, quality solutions. The result are repeatably accurate and legible codes, reducing the chance for mistakes and production line delays.

Thermal Transfer Overprinter (TTO)

- Ideal for printing on plastic film prior to filling
- Hundreds of mounting bracketry designs simplify and help ensure accurate integration into vertical form fill seal, flow wrappers, and other machinery
- Produce scannable bar codes for innovative marketing opportunities and accurate logos for improved branding

Continuous Inkjet (CIJ)

- Inks designed for optimal adhesion and print durability, produced in GMP and HACCP managed facilities around the world
- Food-grade inks, produced in ISO9002-qualified food-grade ink production facilities
- Sealed fluid containers reduce odours, simplify fluid loading, and improve cleanliness
- Longer print distance enables the printing of unusually shaped items

Laser Marking Systems

- Use of DataLase® patch helps enable faster print on wide variety of materials
- Limited supplies are required, saving budget and increasing uptime
- Sharp, clear expiry codes with high contrast due to colour change on packaging
- Print with fonts tailored to brand styling
- Print more information in a smaller space

Metal cans

Proven operations

Metal cans play an important role for long shelf-life items like condensed and powdered milk. Canned liquid milk products are often produced in a retort process to ensure product safety. Since these are export-friendly products, traceability and brand protection are important.

To address issues surrounding traceability and brand protection, it is ideal to remove the human element altogether from code selection. Videojet Code Assurance solutions help to simplify your processes and empower you to get the right code in the right place, on the right product, time after time.

Continuous Inkjet (CIJ)

- Our thermochromic inks change colour to indicate can processing. You can choose from different colour transitions, drying and adherence properties to meet your needs
- Patented CleanFlow™ printhead technology helps keep printhead cleaner longer, minimising required maintenance
- Choose Ultra High Speed solutions for faster throughput or higher print quality

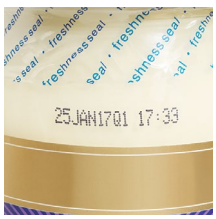
Laser Marking Systems

- Laser solutions engrave the metal directly for printing on the bottom of the can
- Solutions are designed to print on painted or labelled surfaces
- Wide range of text styles to match your product branding
- Using DataLase® laser receptive additives to the can label shortens printing time for higher throughput

Glass bottles and jars

Re-use friendly

The once ubiquitous glass milk bottle has slowly disappeared. However, glass is still often used for premium products because it doesn't alter product flavour, is highly reusable, and allows consumers to clearly see the product's quality. Whether your application utilises returnable or non-returnable containers, Videojet has inkjet and laser printing solutions to meet your production requirements.



Producing a high quality code goes beyond printer selection. Inks and fluids are a critical piece to identifying the ideal solution for your application. Specific dairy application needs such as high contrast codes and inks that offer strong adhesion in humid environments can require different inks. With the industry's leading team of ink application chemists, Videojet has spent over 40 years developing specialty ink formulations that are ideal for your applications.

Continuous Inkjet (CIJ)

- Returnable bottle ink which can be removed during later disinfecting
- Longer print distance helps enable printing on odd shaped items or for difficult printhead positioning
- No shop air requirement which simplifies printer operation and allows you to share the printer across several filling lines
- Ultra High Speed solutions for faster throughput or higher print quality

Laser Marking Systems

- Delivers high contrast printing on paper labels
- Clear codes, logos and text can be etched directly into glass, helping to ensure permanence and protection
- Using DataLase® laser receptive additives to the label shortens printing time for higher throughput

Cases, cartons, and shrink wrap

Meeting retailer requirements

Retailers, like supermarkets, are increasing their efficiencies by using shelf-ready packaging and automating inventory management systems. However, the burden falls on dairy producers to provide shelf-ready packaging and coding that can be read by scanners at distribution sites. For example, bar codes with a quality grade of 'C' or lower can lead to the rejection of the entire shipment. As branding efforts lead to changing packaging design, material, and colour, the difficulty of meeting retailer requirements increases for the manufacturer.

Large Character Marking (LCM)

- Innovative ink system improves print quality and saves ink
- High resolution printing of bar codes, logos and other information
- Integrates into production planning system for automated print selection

Thermal Inkjet (TIJ)

- No wear parts to replace, helping reduce service costs
- Compact design for integration into existing production lines
- High quality printing of bar codes for better processing of items through the supply chain

Laser Marking Systems

- High speed coding, direct to case, with DataLase® patch
- High print resolution for bar coding applications
- Extensive beam directing accessories for integration into challenging locations
- Large mark area helps enable longer tracking of moving items to print more information or to improve process efficiency without stopping package

Label Printer Applicator (LPA)

- Direct Apply virtually eliminates all jams as no applicator or plant air is needed to apply on-demand labels
- Designed for 1D and 2D bar coding
- High quality direct thermal or thermal transfer printing for optimal label life
- Unicode 5 support for international labelling applications
- 4" and 6" print widths to match common labelling size

Global Service offering

Broad service offering built with you in mind

	Start-up	Preventive	Protective	Comprehensive
	The perfect introduction to peace of mind, ensuring a smooth transition during the adoption of new printers	While your team focuses on production, our technicians safeguard your equipment with regular maintenance visits	For a team capable of general maintenance, take advantage of break & fix coverage plus wear parts replacement	Let us take care of everything and enjoy 100% coverage to proactively optimise printer performance
24/7 technical phone support	●	●	●	●
Preventive maintenance	●	●		●
Break-fix coverage	●		●	●
Wear parts replacement			●	●
Priority service	●		●	●
Basic operator training	●			●
Consultative services and application support	●			●
Optional equipment leasing available			●	●

Further details of all Service Products can be found in our product specification sheets and any professional quotation supplied by Videojet.

You will benefit from:

Performance advantage
Properly maintained printers experience less downtime, last longer, and increase operator productivity. Rely on Videojet certified service technicians to maintain your coding equipment in peak operating condition.

Financial advantage
Service costs are predictable, protecting your budgets from expensive equipment failures while locking future services at current prices.

Service advantage
Customers get fast, prioritized, high-quality service from Videojet technicians. With the largest field service team in the industry, our trained experts are well positioned to respond quickly to your needs.

Videojet solutions

Accurate, reliable and cost effective printing

Coding in the dairy industry is not necessarily straightforward. Given the high production volumes and short shelf-life of many dairy products, your lines require fast, accurate and reliable coding. Videojet printing solutions maximise production and business benefits through increased uptime, simplified operations and improved flexibility. With a robust offering of varying technologies, Videojet can meet these challenges with an array of cost-effective and high uptime solutions.

Continuous Inkjet (CIJ)

Most versatile of all variable technologies, combined with a portfolio of over 175 inks, CIJ prints on nearly any material and shape.

Laser Marking Systems

Improve the contrast and readability of your codes by permanently etching the material surface without physical contact or any need for solvents or extra supplies.

Thermal Inkjet (TIJ)

Ideal for high quality text and bar codes on boxes, cartons, and cases ensuring that even complex and detailed codes are clearly readable for your downstream partners and consumers.

Thermal Transfer Overprinting (TTO)

Perfect for your flexible packaging applications, TTO gives you high quality codes and images, from date and time to DataMatrix codes and logos in a variety of colours.

Large Character Marking (LCM)

Eliminate pre-printed boxes and labels by printing your supply chain information directly to case, saving time and reducing costs.

Label Print Applicator (LPA)

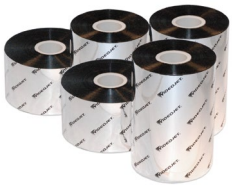
When your customers require labels or you are using darker corrugated cases, LPA automatically applies labels to cases to help ensure high accuracy across a range of substrates.

Supplies and accessories

Customised solutions for your application

Every coding application is different. That is why we offer you one of the most comprehensive selections of supplies and accessories to customise a solution for your unique operations.

With a wide range of ribbons, inks and fluids, Videojet has spent over 40 years developing specialty consumables that are ideal for your dairy applications. In addition, we work directly with major OEMs and have a wide range of customised accessories for all printing technologies to seamlessly integrate our printers into your production lines.



Supplies

Specially developed inks and fluids

Videojet employs strict manufacturing quality control processes for our consumables to deliver the best possible printer and code performance. With over 15 types of ribbon, 640 application-unique fluids, and the help of our technical support team, we are sure to have your ideal solution.

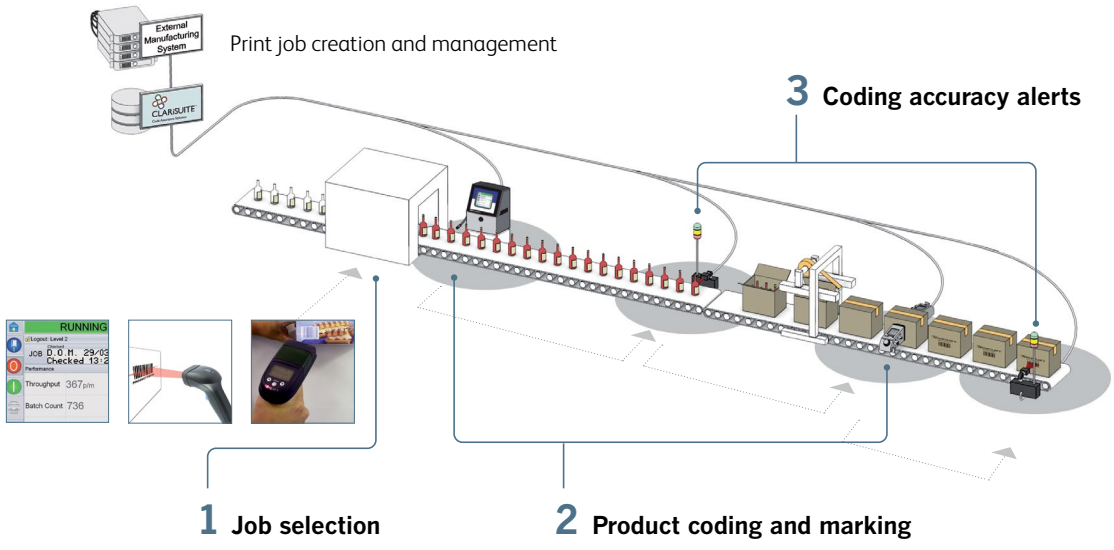
Accessories

Configurable accessories

From customised stainless steel brackets and rubber rollers to fume extractors and beam turning units, Videojet has the accessories for a worry-free installation to help ensure the optimal performance of your line.

Software

Increase availability and quality by taking print job creation and management off the production floor.

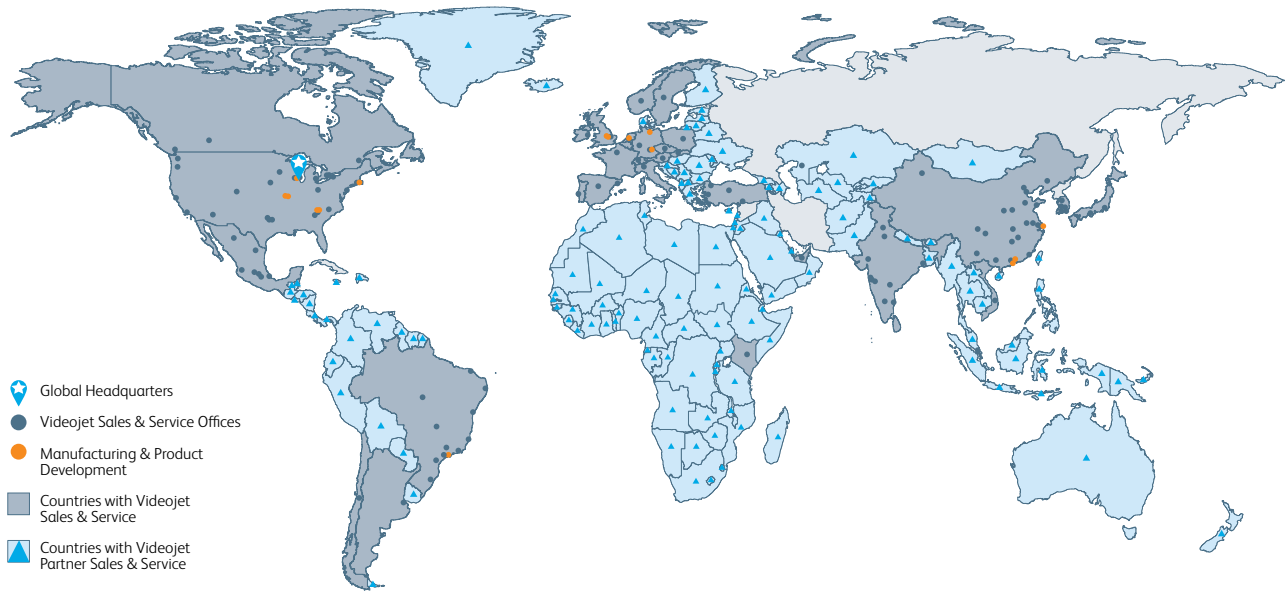


Peace of mind comes as standard

Videojet Technologies is a world-leader in the product identification market, providing in-line printing, coding, and marking products, application specific fluids, and product life cycle services.

Our goal is to partner with our customers in the consumer packaged goods, pharmaceutical, and industrial goods industries to improve their productivity, to protect and grow their brands, and to stay ahead of industry trends and regulations. With our customer application experts and technology leadership in Continuous Inkjet (CIJ), Thermal Inkjet (TIJ), Laser Marking, Thermal Transfer Overprinting (TTO), case coding and labelling, and wide array printing, Videojet has more than 400,000 printers installed worldwide.

Our customers rely on Videojet products to print on over ten billion products daily. Customer sales, application, service and training support is provided by direct operations with over 4,000 team member in 26 countries worldwide. In addition, Videojet's distribution network includes more than 400 distributors and OEMs, serving 135 countries.



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Part No. SL000503
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Example showcase: Milk processor

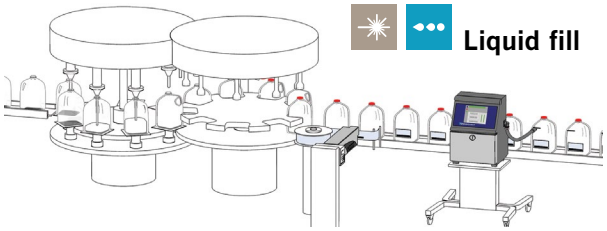
Liquid milk in varying sizes

Customer profile:

A milk processor with multiple liquid fill lines processes and packages dairy products for supermarkets. The products are bottled into containers of varying sizes: 200ml, 500ml, 1 L, 2 L and 3 L. Coding on the primary container can be achieved by ink on the plastic bottle or by laser on a specially treated label.

Challenges:

Given the varying sizes of the containers and requirements from different supermarkets, the processor is required to code the best-by-date in different locations on the container. High quality bar codes are critical for milk processors, as retailers' use of automated systems to manage inventory and low quality bar codes have led to shipment rejection.



Liquid fill

Videojet solution:

Continuous Inkjet (CIJ):

The flexibility of our continuous inkjet (CIJ) printer allows the processor to place the printhead at different heights and angles. Thanks to Videojet features such as CleanFlow™ and Dynamic Calibration™ technologies, the processor does not worry about clogged printheads or varying environmental conditions slowing down the production line or producing sub-standard codes.

CIJ code on bottle

Laser:

Some retailer customers require code permanence, so the processor also uses lasers to mark the best-by-date directly onto a chemically treated label. With the benefit of Videojet extensive beam directing accessories, the processor is able to integrate laser coders, even in the most challenging locations.

DataLase® code on label

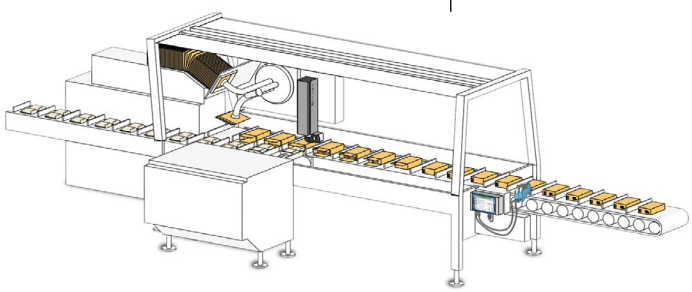
Print & Apply Labelling (LPA):

The secondary packaging also varies based on customers' needs. Products are shrink-wrapped with a label affixed to the side that contains product information via a bar code. The processor uses a Videojet print & apply labeller which is designed for high quality 1D and 2D bar coding. Our Direct Apply™ technology virtually eliminates all jams, as no applicator or plant air is needed to apply on-demand labels.

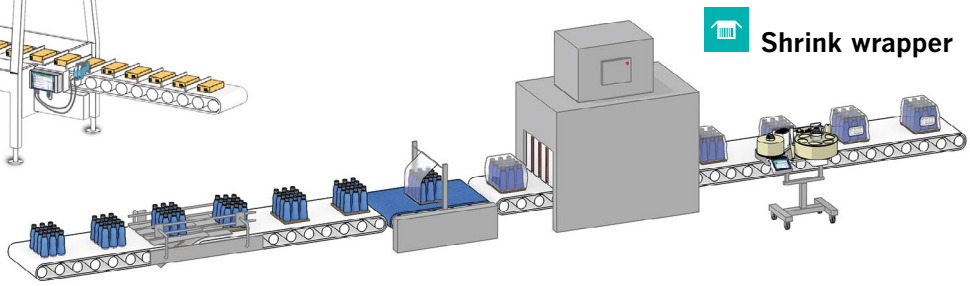
Alternatively, products can be placed in cartons, where product information is coded via inkjet printers or labellers. While the processor does not utilise Videojet inkjet case coders yet, these printers can be used to print high resolution bar codes and logos while incorporating an innovative ink system that improves print quality and saves ink.

Label on carton

Cartoner



Shrink wrapper



Example showcase: Yogurt manufacturer

Multi-pack and flavour proliferation in yogurt

Customer profile:

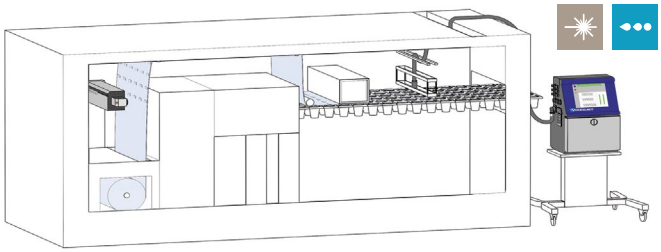
A yogurt manufacturer with 10 filling lines produces 200M cups/year and operates 24 x 7. This manufacturer primarily sells to supermarkets of different sizes. Best-by-date coding is done directly on the sealing foil, bottom of the cup, or on the side of the cup. Secondary coding includes production information and bar codes marked via inkjet or label.

Challenges:

Given ever changing consumer taste preferences, supermarkets are requiring the yogurt manufacturer to produce variety packs as well as utilise different colour-combination cups in an effort to make the product more appealing. Given the short shelf-life of the product, the manufacturer has to conduct 3-4 changeovers per day in order to meet its customers' demands.

In an effort to increase efficiencies, supermarkets are utilising automated systems to manage inventory and shelf-ready packaging. As a result, high quality (above grade C) bar codes are required, otherwise entire shipments can be rejected by the supermarket.

Laser code on lid



Cup fill

Videojet solution:

Traversing with inkjet:

The manufacturer utilised a Videojet inkjet printer with 6-metre umbilical to code best-by-dates on the foil lids by traversing 10 cups at a time. And thanks to Videojet CleanFlow™ technology incorporated into the printer, the printhead stays clean for extended run times, despite the traversing action. The manufacturer utilised the wide range of Videojet inks, both dark and coloured, in order to provide strong code contrast on the varying coloured cups. As the printers are IP65 rated, washdowns are more efficient.

CIJ code on yogurt

Traversing with laser:

In order to maintain code permanence, the manufacturer utilise lasers to mark onto the lids of the yogurt cups. Thanks to the Videojet larger laser marking fields, the manufacturer can simultaneously print best-by dates across multiple lids. Due to limited consumables needed, the manufacturer has seen increased uptime and lower TCO.

Bar codes on cartons:

Increasingly, supermarkets are using shelf-ready packaging and automated inventory management systems in an effort to reduce the amount of labour needed to receive product and stock shelves. Thus, the manufacturer is required to provide high quality bar codes on a variety of different cartons. The flexibility of the Videojet 2330 printer provides the manufacturer the ability to print high quality bar codes and logos on cartons.

Bar code on corrugate

CLARiSUITE™ for changeovers:

The proliferation of varieties and multi-packs leads to increased changeovers at the production site. Without strong processes and systems in place to help ensure production accuracy, errors can occur due to the increasing complexity associated with variety packs. This can lead to costly rework or waste.

The manufacturer implemented Videojet CLARiSUITE™ software to help minimise and mistake-proof operator inputs to the coding and marking process. By specifying error-proofing rules during set-up, operator inputs were limited to specific choices, resulting in fewer errors. They used CLARiSUITE to set up the primary package, case, and labelling printers from a single location, dramatically reducing planned downtime during product changeovers.