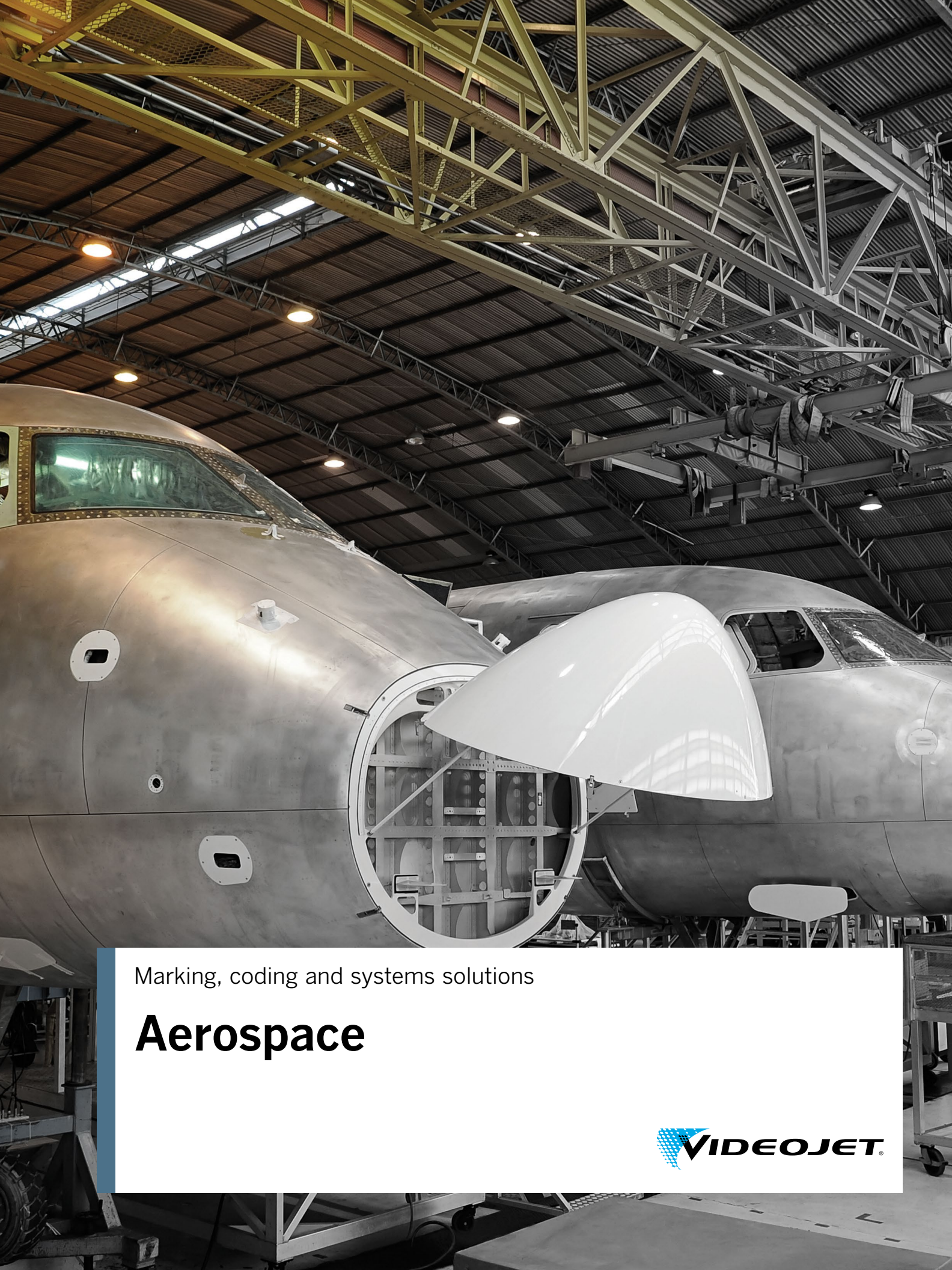


Marking, coding and systems solutions

Aerospace

VIDEOJET

We know the unique challenges you face in your production

In aerospace there is no room for error when it comes to product quality. This is magnified by challenging production environments, tight specification requirements, and the need to trace your parts throughout their entire lifecycle.

With so many parts and varying substrates, it's important that your coding partner has the right mix of technologies to meet your part marking specifications.

Part marking for the aerospace industry demands sophisticated solutions in challenging environments. We can help.

Supported by a global team of technology specialists and our customer support team, Videojet has the expertise to help you design, integrate the right coding solution for your production lines.

Uptime advantage

With 24 hours a day, 7 days a week operations, we know you cannot afford coder-related downtime. We have engineered our technologies to minimize maintenance and help you avoid downtime.

Built-in productivity

Designed with our exclusive CLARiTY™ software, Videojet coding solutions provide OEE metrics and a full diagnostics tool, helping users to quickly identify and troubleshoot issues if they should arise.

Code Assurance

Helping you to effortlessly manage an increasing number of codes, Videojet printers offer rules-based, bar code reading or network communication options for easy data entry. This enables you to get the right code on the right product, time after time.

Simple usability

Offering seamless software and hardware solutions for easy integration into your production lines or cells, our global team of technology specialists can help to get your coding solution up and running quickly.

Expertise for seamless integration

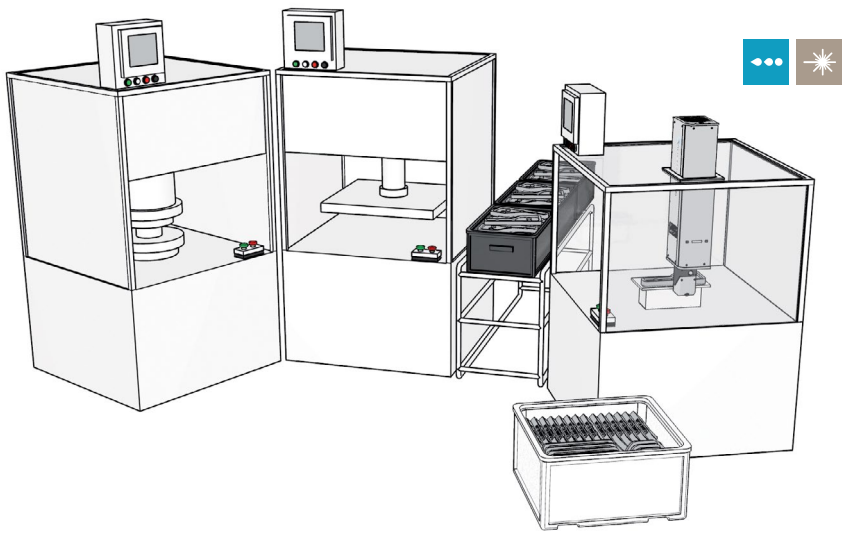
Your production line is only effective if all of its components are working in unison with each other. Though only a relatively small element of your packaging investment, selection of the right coding solution is imperative to your success. With over 40 years of industry-relevant experience, we understand the small details of integration.

Integration challenges can be physical, in terms of space and the need for mounting accessories, or software and communications-based. We work closely with automotive and aerospace machinery manufacturers to make sure that the optimal coding solution integrates seamlessly into your lines. In addition, Videojet's service and technical support teams help ensure that the installation is done right and provides support throughout the life of the printer.

Coding technologies

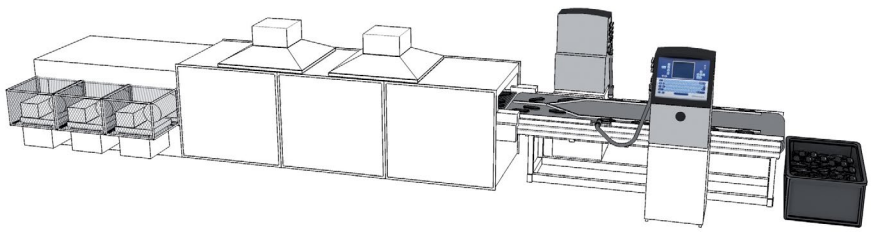
Manufacturing cell

With direct connectivity to Programmable Logic Controllers (PLCs), small footprints, traversing arms, and a wide variety of beam turning units, Videojet lasers allow for easy integration into work cells.



Continuous line

Videojet printers can code at high speeds on many challenging substrates and do so without damage to the part. Coding options include simple lot code numbers as well as more complex DataMatrix codes.

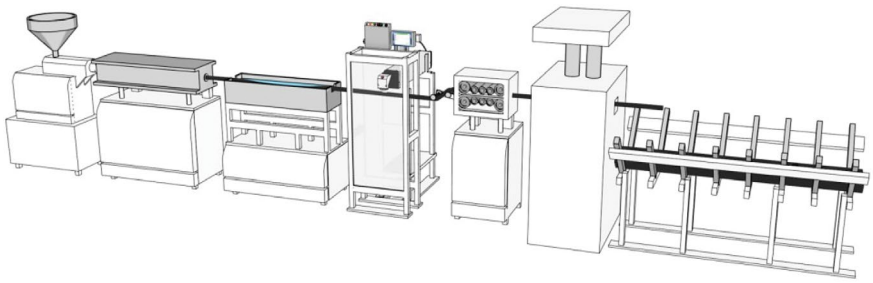


Coding technologies for your substrate type:

Printing application	Laser	TIJ	CIJ	TTO	LPA	LCM
Metal parts	✔		✔			
Plastic parts	✔		✔			
Extrusions	✔		✔			
Ceramic, paper, glass	✔		✔			
Boxes and bags	✔	✔		✔	✔	✔

Extrusion line

Extrusion facilities are non-stop operations and are challenged by dusty and wet conditions. Videojet printers are designed to meet these unique demands and help deliver maximum uptime.



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

Thermal Inkjet (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.

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

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

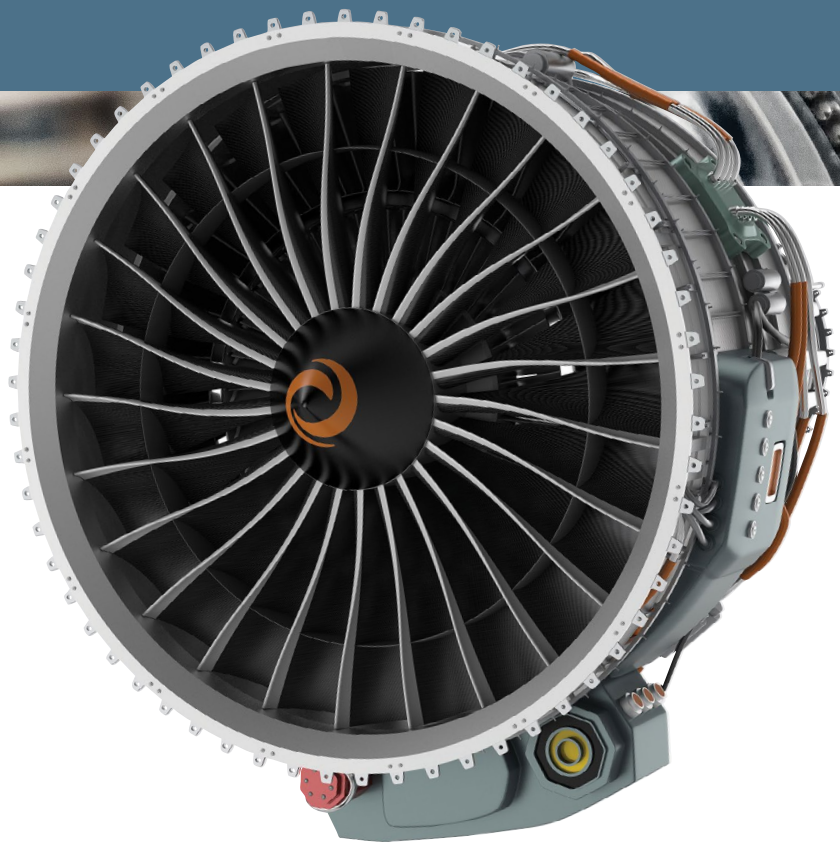
Large Character Marking (LCM)
Ink-based, non-contact printing of tall codes, including alphanumeric logos, and bar codes in large sizes primarily for cases

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

Metal

Print on titanium to aluminum and nearly everything in between

Selection of an ideal coding solution for marking on metal parts will vary based on several factors. If permanent codes are required, for example, then laser marking is an optimal solution over continuous inkjet printing where ink performance can be less than ideal. With the intricacies of the strict specification of your parts, and the many available coding technologies, it is important that you select an experienced partner to guide you.



Lasting codes to endure tough environments

In an industry with strict durability requirements, Videojet offers multiple options to help create lasting codes on metals and alloys. This includes codes that may need to withstand multiple assembly steps as well as operational conditions involving extreme temperatures, solvents, and potential abrasion.

Laser Marking Systems

- Creates clear high quality codes at up to 440 m/min
- Lasers code without inks or fluids, so consumables-related maintenance is not required

Continuous Inkjet (CIJ)

- Smart Cartridge™ fluid delivery system means virtually no mess, no waste, and no mistake fluids replenishment
- Predictable maintenance windows and customer-replaceable components facilitate self-maintained environments

Plastic

High contrast codes with maximum uptime

In an industry where most parts are dark or black in color, visual contrast is vitally important for both internal manufacturing controls as well as external traceability. High quality marks made in high contrast inks can help your codes achieve exceptional readability rates. And with proven installations across a wide array of substrates including polypropylene, polyurethanes, acrylonitrile butadiene styrene, and others, Videojet has the coding expertise to help you select the right solution for your substrate.

A quality code to reflect the quality of your part

In an original equipment market where the vast majority of parts don't have any packaging to show the brand of the product, the only opportunity for the supplier to identify its brand is by coding directly on the part. A clear, high quality code can be representative of your brand and help build recognition with customers.

Laser Marking Systems

- Comprehensive portfolio of laser accessories, including lenses and beam turning units, to simplify line integration and maximize laser performance
- Videojet fume extraction systems help keep the production environment and marking lens clean

Continuous Inkjet (CIJ)

- Ultra-high Speed (UHS) printers are ideal for high resolution codes, including DataMatrix, in small print areas
- Capable of printing DataMatrix codes with high contrast on dark surfaces

Extrusions

Virtually maintenance-free coding solutions for clear codes in challenging environments

Don't let printers that require excessive maintenance be the cause of costly downtime. Even with extreme temperatures and wet and dusty conditions, we have Continuous Ink Jet (CIJ) solutions that can help keep your lines moving. Featuring anti-clog printheads, Videojet CIJ printers can help address your unique production needs, including specialty inks that are fast-dry, heat, and oil-resistant. Likewise, our laser solutions are virtually maintenance-free and provide crisp, permanent, precision codes.

Continuous Inkjet (CIJ)

- High contrast, specialty pigmented inks provide bright, crisp codes on dark backgrounds
- Dynamic Calibration™ automatically adjusts to variations in temperature or humidity, helping to keep your printers and lines running

Laser Marking Systems

- Sharp, clear codes with high contrast
- Highly attractive, gold-colored codes are possible on extruded PVC

Ceramic, paper and glass

Designed to print without damaging the integrity of your part

The unfortunate truth is that ceramic, paper and glass parts are susceptible to damage if they are not coded correctly. The selection and use of an inappropriate coding technology can result in the removal of protective layers, in the creation of holes or cracks in your part, or it can permanently change their physical characteristics. This is why it is imperative for manufacturers to select the right coding technology for their line or cell.

Virtually removing human error from your code entry process

There is little room for expensive code-related mistakes that at best, can be removed from your product and recoded, but at worst, cause you to throw it away altogether. Helping avoid these costly errors, Videojet Code Assurance solutions can help take the guesswork out of code selection for your operators. The result? Getting the right code on the right product, time after time.

Continuous Inkjet (CIJ)

- This technology supports the largest variety of material substrates
- Offers up to five lines of code per printhead, helping to increase print capabilities on your line

Laser Marking Systems

- Able to mark crisp, high quality codes without removing the protective external layer of your part
- Clean, high contrast appearance conveys a modern brand image

Videojet solutions

Accurate, reliable and cost effective printing

Coding in the automotive and aerospace industries is not necessarily straightforward. Plastic and metal particles as well as grease and dust can lead to poor quality printing. Especially when coding DataMatrix codes that require a high level of contrast and definition. Additional factors such as uptime, flexibility, line OEE, and total cost of ownership are important to help protect the profitability of the operation. With a robust offering of varying technologies, Videojet can meet these challenges with an array of flexible, 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 colors.

Large Character Marking (LCM)

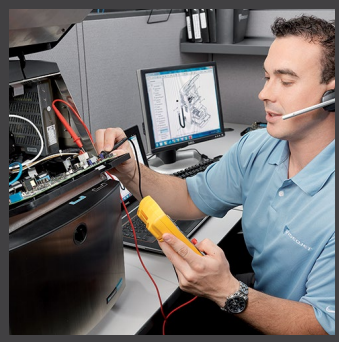
Eliminate pre-printed boxes and labels by printing your supply chain information directly to case, saving time and reducing costs.

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.

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 optimize 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.

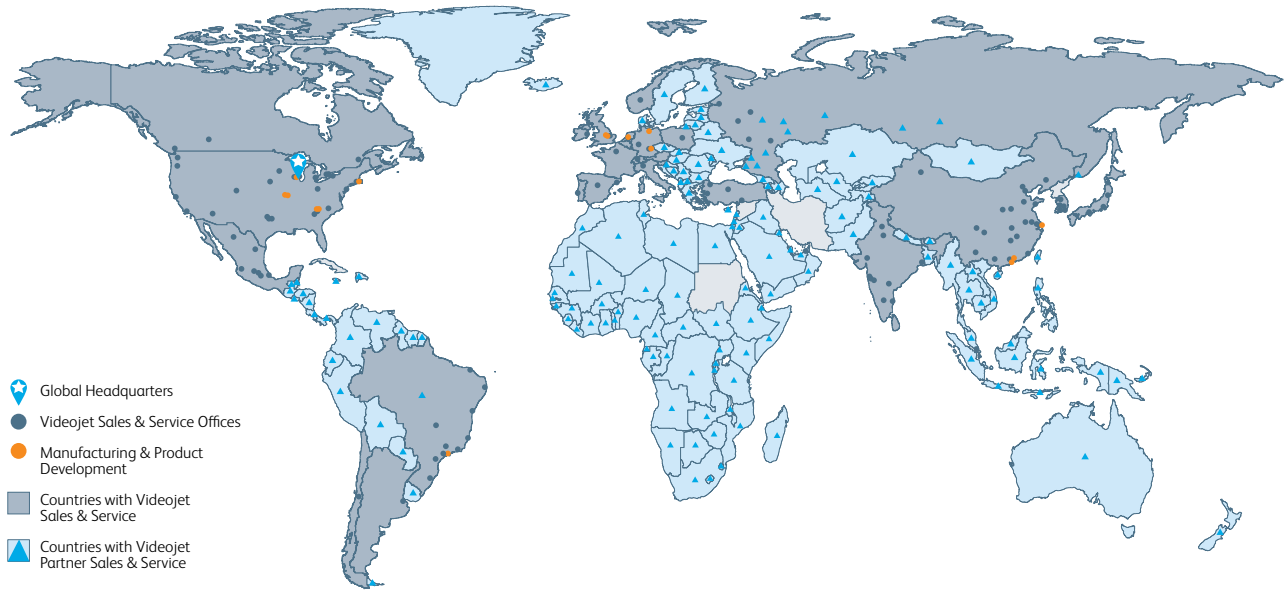
Service advantage
Customers get fast, prioritized, high-quality service from Videojet technicians. With the largest field service team in the industry, our trained experts are well positioned to respond quickly to your needs.

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 labeling, and wide array printing, Videojet has more than 345,000 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 members in 26 countries worldwide. In addition, Videojet's distribution network includes more than 400 distributors and OEMs, serving 135 countries.



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