

Inkjet Marking



Pryor offers inkjet marking system systems to integrate to your full traceability solution.

Components may need multiple marking technologies to ensure traceability is maintained throughout every production process. Although a non-permanent marking method, inkjet is ideal for some surfaces.

Pryor systems can inkjet mark a component with the same data as a permanent mark, can read back the data from the inkjet mark and store / reapply that data elsewhere in the production flow.

- Semi-permanent marking
- Used to print alphanumeric text, best before dates, logos and 1D and 2D barcodes
- Ideal for duplicate marking, temporary marking during production or marking wax, plastic or painted surfaces.

Overview

Inkjet printing creates a printed mark by propelling droplets of ink onto paper, plastic, glass, metal and other substrates.

Pryor's Inkjet solution uses the continuous inkjet (CIJ) method, in which a high pressure pump directs a continuous stream of ink droplets that are deflected by electrostatic forces to print on the substrate. In this printing method, the ink droplets have a very high velocity which allows a relatively large distance between the print head and the part being marked. It is also a very high speed method due to the high drop ejection frequency.

Inkjet is commonly used on painted components, such as painted shafts in aerospace, as printed ink creates a high-contrast mark that is usually easily read by machine vision cameras. Inkjet is often used in this way alongside dot-peened Data Matrix codes as a secondary internal tracking process. It is also commonly used in the early stages of manufacture to support the initial build configuration. It is then sometimes replaced by a permanent indented mark later on in the manufacturing process for lifecycle traceability.

Pryor's all-in-one system is optimised for marking components of various shapes and sizes. The printing head is mounted on a height adjustable column, enabling marking of taller components. For very large parts, the print head can be loaded into a marking gun, which the operator will simply hold over the area to be marked. One Inkjet marking station can satisfy the marking requirements of all of your components.

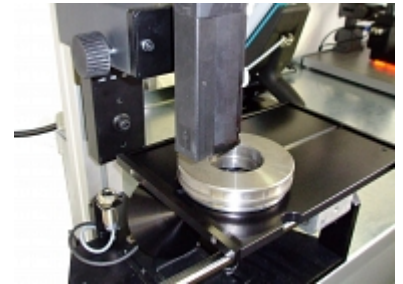
The part is mounted on an x axis sliding table, controlled by the operator. The x axis table sits on rollers that identify the position of the component relative to the ink spray and the mark being created. This ensures a high quality mark regardless of the speed by which the operator moves the component under the marking head. It also enables very long marks to be created, sometimes necessary for long serial numbers, 1D barcodes and text.

The character height is also adjustable. For very small marks, the character height can be as small as 0.7mm. This is often most suited to manufacturing and electronics data matrix marking applications. For packaging requirements, larger marks are sometimes required and the inkjet is capable of marking up to a character height of 18.2mm (on a twin-jet machine).

- Marks paper, card, plastic, glass, metal and other substrates
- Relatively large distance between the print head and substrate still results in high quality marks
- Very high speed
- Marks created are often easily read by vision cameras
- Capable of printing on small or large components of various shapes and sizes.

- Traceability and Data Capture
- Automated Part Marking
- Aerospace Marking Standards
- Automotive VIN Marking
- Hand Tools for Marking and Identification
- Serial Number Marking
- Logo Marking
- Production Data Monitoring

- Capable of printing very large and very small marks with easily adjustable character height.



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Products and Solutions available from Pryor



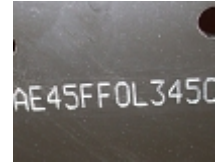
Traceability and Data
Capture



Automated Part
Marking



Aerospace Marking
Standards



Automotive VIN
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Hand Tools for Marking
and Identification



Serial Number
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Production Data
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Our Solutions

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