

CODE TRACKX

IN THIS ISSUE

VOICES

Understanding various coding and marking technologies

MEDIA HIGHLIGHTS

Times of India: Decoding the future of security inks in India

INDUSTRY SPOTLIGHT

Cement: Why challenging conditions in the cement industry demand robust coding systems

PRODUCT SHOWCASE

Large Character Printer (LCP)

ABOUT US

Top Clients
Technology
Branches
Capabilities



Despite being one of the critical components of the Indian manufacturing business, the knowledge of coding and marking space remains unknown to mainstream audiences. Today, coding products have become essential for the success of the entire supply chain and quality control process.

The coding and marking industry has been helping big manufacturing firms to identify, track and trace their products and prevent counterfeits. Printing essential product details such as manufacturing date, expiry date, batch number, maximum retail price, manufacturing location, QR codes etc., on any manufactured product across sectors is now a regulatory mandate by the government in India.

Shiva Kabra

Joint Managing Director | Control Print Limited





UNDERSTANDING VARIOUS CODING & MARKING TECHNOLOGIES

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Joint Managing Director | Control Print Limited

In line with the government's efforts to make India self-sufficient, the coding and marking industry has also aided in the development of the country's manufacturing, packaging, start-ups, SMBs, and food and beverage industries. It provides solutions to these businesses for a variety of objectives, such as regulatory requirements, inventory management, traceability, branding, and anti-counterfeiting. The advancement of coding and marking technology has not only helped these businesses solve their problems but has also contributed in a big way to the growth of the country's developing economy.

Listed below are the top technologies used for coding and marking products across manufacturing industries:

Continuous Inkjet Printer (CIJ): Versatile and cost-effective coding solution suitable for nearly every application. Using world-class technology, our CIJ printers are built keeping the working conditions in Indian factories in mind.

Thermal Inkjet Printer (TIJ): Reliable, zero-maintenance and breakdown-free. A high-resolution printer ideal for the pharmaceutical industry and the printer of choice for shipper carton coding.

Thermal Transfer Overprinter (TTO): Thermal transfer technology utilises a thermal print head consisting of individual ceramic resistors that are selectively heated to transfer the desired image from a coated ribbon directly onto the substrate.

Laser Printer: Our laser printers use SPA laser tech, which makes this laser batch coding machine become a more functional investment than other equipment as it may be adapted, module by module, to the specific needs of your production line.

Large Character Printer (LCP): Our Large Character Printer is the toughest and most robust printer in our line-up. These printers are great for printing variable information and text on difficult-to-print surfaces, especially when the printed value needs to be visible from a long distance.

High-Resolution Printer (HR): Our high-resolution printer is designed to help businesses save money while increasing packaging line flexibility and automation. With 180 dpi resolution and a large printhead, this printer is perfect for printing labels, barcodes and logos directly on shipper boxes.

DECODING THE FUTURE OF SECURITY INKS IN INDIA

Times of India: The most damaging threat that almost all businesses face today is counterfeiting. It costs industries billions of dollars in loss of revenue, not to mention the loss of brand reputation and, eventually, loss of customers.

How can a company tackle this problem? Well, even though the risk cannot be eliminated, it can be mitigated to a great extent by the use of security inks.

Let us see how this can be done:

Overt: As the name suggests, this type of security feature is readily apparent or obvious for the customer to verify or check. These include:

- **Watermarks:** It is an image, logo, or pattern superimposed on another embodiment to make the original image challenging to copy or duplicate.
- **Barcodes:** These are very common and found on almost all products. They are visible but require a scanner to read them.
- **QR codes (quick response codes):** This type of code can be read by a smartphone camera and a QR code app to retrieve the stored information.
- **Colour-shifting inks:** This type of ink is used mainly in currency notes and other documents. It displays distinct colours when viewed from different angles.



Covert: This anti-counterfeiting technique is not apparent or visible to the naked eye but requires a particular aid or equipment to visualize it. This is usually only accessible to select entities such as brand owners, authenticators, etc., and not to the general public. Thus, it requires a pre-knowledge on the part of these entities to locate, verify and authenticate.

Some of these covert methods are:

- **UV or ultraviolet blacklight ink:** This type of ink is not visible in normal light but needs to be exposed to UV light for it to be visible.
- **IR or infrared inks:** This type of ink is only visible under unique IR-sensitive equipment.
- **Magnetic inks:** A type of ink produced using a pigment that can be magnetized after printing and which can be read only by a magnetic ink character recognition device.
- **Taggant** provides an invisible fingerprint to the surface on which it is used, and it can be read only using a particular device capable of decoding it.

Both these types of techniques have their advantages and limitations.

While Overt technology can be easily used by the public, it lends itself open to easy removal and replication.

On the other hand, Covert technology cannot be used by the general public and consumers and cannot be easily replicated. However, it requires special equipment and trained personnel to decode it.

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ORIGINS: THE INVENTION OF MODERN CEMENT AND THE CLASSIFICATIONS OF CEMENT PRODUCED IN INDIA

John Smeaton, an Englishman born in 1724, is known as the 'Father of Civil Engineering' who designed numerous bridges, harbours, and canals. He also pioneered the usage of 'hydraulic lime', leading to the discovery of modern cement. After British stonemason Joseph Aspdin patented the world's first artificial cement in 1824, which he called 'Portland Cement', cement production became widespread across the globe.

Cement manufacturers in India are engaged in the production of several types of cement, i.e., Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), Portland Blast Furnace Slag Cement (PBFS), Hydrophobic Portland Cement, Rapid Hardening Portland Cement, White Portland Cement, Sulphate Resisting Portland Cement, Oil Well Cement, High Alumina Cement, etc. Cement in India is produced strictly as per the Bureau of Indian Standards (BIS) specifications, and its quality is equivalent to the best in the world.

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WHY CHALLENGING CONDITIONS IN THE CEMENT INDUSTRY DEMAND ROBUST CODING AND MARKING SYSTEMS

Cement is one of the most widely consumed materials in the world for construction, road building, and other infrastructure projects.

As the demand and distribution of cement increase, so does the need for reliable printing and marking systems to meet branding, labelling, variable product information, traceability, quality assurance, counterfeit protection, and packaging needs in the cement industry.

Various coding and marking systems are used to print on cement bags, concrete blocks, roofing sheets, gypsum, and cement sheets. With round-the-clock run times, dusty environments, and harsh temperatures in cement factories, you need powerful printing and marking systems that consistently produce the highest quality output. In addition to producing high-quality prints, these systems should be reliable and durable to meet your production deadlines in these challenging environments.

[LEARN MORE](#)



The Large Character Printer (LCP) is our most rugged printer, ideal for coding on cement bags, concrete blocks, and roofing sheets.



[LEARN MORE](#)

HIGHLIGHTS

1

Built to last

Our IP65-rated industrial-grade LCP printer delivers superior print quality even when exposed to high heat, dust, water or humidity in continuous operational temperatures above 60 degrees Celsius.

2

Reliable performance

The Large Character Printer (LCP) operates on Valvejet Drop on Demand inkjet technology. With only a few moving parts in the system, the odds of printer failure are minimized.

3

Perfect prints

With an industry-leading 70 mm throw distance, the LCP can deliver high-quality codes even on irregular surfaces and imperfectly aligned products.

4

Slant Head Technology

The LCP's 'Slant Head Technology' allows you to change the print height on large and small products with one printer, eliminating time-consuming print head setup changes.

5

No-Print Kit

The 'No-Print' kit is an inbuilt failsafe mechanism in our LCP that ensures all products are coded, reducing the need for manual quality control and checks.



TOP CLIENTS

ABOUT US

Control Print has been India's leading manufacturer of permanent coding and tamper-proof marking systems since 1991. Our digitally-enabled printing solutions, application-specific inks, and wide range of consumables are engineered to meet branding, labelling, variable product information, traceability, quality assurance, counterfeit protection and packaging needs in every manufacturing industry.

We'll guide you through the entire process of choosing the ideal coding and marking systems to integrate with your existing manufacturing process and production lines seamlessly. Let's talk.

EXPLORE INDIA'S #1 CODING & MARKING SYSTEMS

+91 8097-466-782

marketing@controlprint.com

www.controlprint.com

TECHNOLOGY

We're proud to be the only 'Make in India' manufacturer of coding & marking solutions since 1991.

- Continuous Inkjet Printer
- Thermal Inkjet Printer
- High Resolution Printer
- Thermal Transfer Overprinter
- Large Character Printer
- Laser Printer
- Hot Quick Coder
- Consumables
 - Inkjet Fluids
 - Ribbons
 - Ink Rolls

[LEARN MORE](#)

BRANCHES

- Ahmedabad
- Bengaluru
- Chandigarh
- Chennai
- Delhi
- Guwahati
- Hyderabad
- Jamshedpur
- Kolkata
- Mumbai
- Nalagarh
- Pune

CAPABILITIES

- 100,000+ sq. ft. mfg. facilities
- 15,000+ printers installed
- 2500+ pin codes served (India)
- 1600+ towns/cities (presence)
- 300+ professional field staff
- 30+ years of expertise

HEAD OFFICE

Control Print Limited

C-106, Hind Saurashtra Industrial Estate, Andheri-Kurla Road, Marol Naka, Andheri (E), Mumbai 400059.

