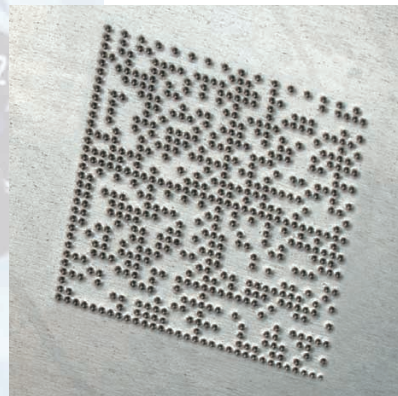


MARKING AND VERIFICATION



*Turnkey traceability solutions
for marking and verification*

Data Matrix™ codes and OCR character recognition



A MARK WHICH DEFIES TIME

TECHNIFOR has been the market leader in so we can provide you with the optimum mark



Identification of products

As an expert in industrial marking for more than 20 years, Technifor is better placed than any other company to provide you with a rapid and permanent system for direct part marking of metal or plastic products or assemblies.

Micro-percussion marking

A cost effective solution with no consumables, giving high quality marks and permanent traceability. An oscillating stylus is accurately manipulated to produce a series of identifications directly in the surface of the part.

Nd: YAG Laser marking

A very high quality mark in the minimum cycle time.

Data Matrix™ codes

Developed over 10 years ago, the Data Matrix™ code is the best solution to the problem of ensuring traceability.

A high data density allows a large number of characters to be encoded within a very compact space.

In-built error correction ensures high data integrity and an exceptionally high readability rate, even in harsh industrial environments.

An unparalleled marking quality

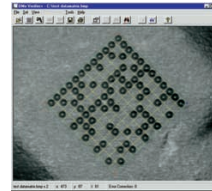
All Technifor products are thoroughly tested and meet the tough requirements specified by the most demanding industries:

- Aerospace industry: (IAQG prEN9132).
- Automotive industry: AIAG

The marking quality provided by Technifor's equipments complies with these standards, ensuring high reliability during the marking process and beyond.

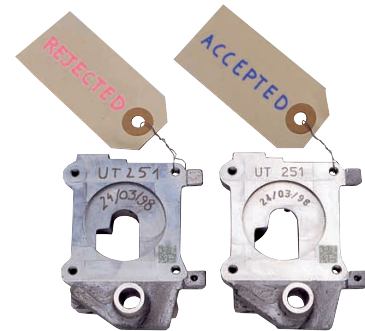
Step 1: Identification

- Product Recognition
- Process identification
- Traceability code
- Customer's specific ID



Step 2: Inspection

- Information capture
- Conformity control
- Storage of processed data



From complete workstation to integrable solutions, including portable marking units...



Integrated machine
CN211S

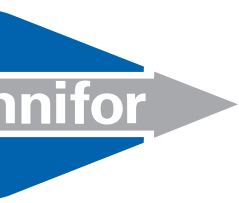


Portable unit with battery pack
M120



Nd: YAG Laser machine
TL400 80 Watts

Industrial marking for more than 20 years, marking and verification solution for your products



Reading and verification

To ensure traceability with optimum reliability, Technifor offers the best solution for reading and verifying the marks made by its own marking machines.



Your global partner

Technifor, in close collaboration with experts in industrial vision, has gained invaluable experience in the provision of turnkey solutions that incorporate marking and verification.

We carry out an in-depth analysis of your requirements for reading and verification and work with you to specify the most appropriate equipment.

A range of vision products

We will supply the vision tool that best matches the needs of your application:

- On-line industrial camera and lighting for automatic reading of marks.
- Handheld reader for manual checking of marks.

Quality control software

On-line or off-line, quality control software tools enable accurate validation of the marks and monitoring of the marking quality throughout the production process.

Step 3: Final inspection

- Verification before shipment
- Shipment preparation
- Process validation

DMx Data		
File		
Nominal Cell Size	9	
Center Offset	-0.243	[15:30%] = 0
Size Offset	7.851	[15:30%] = 2
Correlation Score	0.74	
% Contrast	0.31	
Axis Uniformity	A: 0.01	
Print Geometry	C _x + 0.03 (x 6.7), Y + 0.12 (x 6.7)	
Error Correction	A: 0	
Overall Grade	0 (Pass - AIM)	
00174046		

Field Product tracking

- Automatic identification
- Inspection of returned products
- Database information retrieval
- Maintenance follow-up

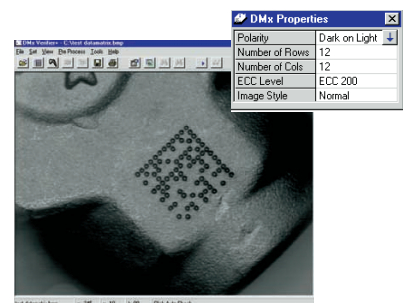
Both fixed and handheld equipment provide consistent results with either micro-percussion or laser marking



CCD Camera



Handheld reader



Graphical interface

APPLICATIONS

Identification of biofluid storage containers



Marking with TL400 Nd: YAG Laser

Individual identification of the 48 wells with a serial number (8 digits), a well code (2 digits) and a Data Matrix™ code (10 digits). Automatic verification of each well: integrated camera with Data Matrix™ and optical character verification capabilities. Isolation of non-conforming parts after verification. Information for all processed parts recorded in a company Database using T700W software linked to the control PLC.

Part of electrical power steering



Marking by Micro-Percussion

Unique identification of automotive diecasting using a Data Matrix™ code containing a 9-character part number, 6-digit part identifier, supplier reference, shift code and date code. Reason for marking: to identify components as having passed an automated inspection process, and for tracking during subsequent assembly.

Marking equipment: CN 210Cp micro-percussion machine with UC200 universal controller.

Reading equipment: Handheld reader, linked to a PC with verification software to validate the code.

TECHNIFOR offers you...

- Traceability and Identification Solutions: over 20,000 systems installed worldwide.
- Reading and verification solutions: automatic reading of various symbologies.
- A global sales and after sales network: 10 subsidiaries and over 300 distributors on 5 continents.
- Analysis, quotation, engineering and implementation of the solutions.



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