



**CREATIVE TRACEABILITY** 





## EXPERT IN PERMANENT MARKING AND INDUSTRIAL TRACEABILITY SOLUTIONS



For over 18 years\*, TECHNOMARK has been a leader in the permanent, direct part marking industry. Based on our success with the Multi4 concept, we are introducing the innovative technology adapted to production lines, M4 Inline!

M4 Inline is fitted with latest innovations developed by our Technocenter

\* Since 2000



### 3D MARK

BASED ON THE CAPACITY OF OUR MACHINE TO ANTICIPATE THE CONTOUR OF PIECES TO BE MARKED THANKS TO INNOVATION INTELLIGENT DRIVING IMPACT (IDI\*\*)



Patented Intelligent Driving Impact (IDI) Technology

IDI Mark&Track is the intelligent driving impact developed by Technomark. It analyzes the distance between the part and the stylus in order to ensure a marking quality never seen before

This unique function automatically analyses the distance between the part and the stylus, enabling it to mark components with height variations during the marking cycle, while providing the same consistent high quality marks

#### **INNOVATIONS:**

- Flat surface: overcome positioning variations from one part to another.
- Irregular or cylindrical surface: constant marking on the part whatever its shape.

#### CUSTOMER BENEFITS:

- Allows dimensional variations to be automatically detected.
- Ensures consistent high quality marking on every part.





## Maximize uptime via predictive maintenance

No need for vison identification or control.

This intelligent system will notify when maintenance is required and what action needs to be taken.

#### **INNOVATIONS:**

- A 40% equipment cost reduction due to no camera requirement.
- Control of the marking tool: broken stylus/worn out spring/lubrication needs.
- Detection of incomplete marking (irregular impact).
- Blank marking tracking.
- Missing part detection.

#### **CUSTOMER BENEFITS:**

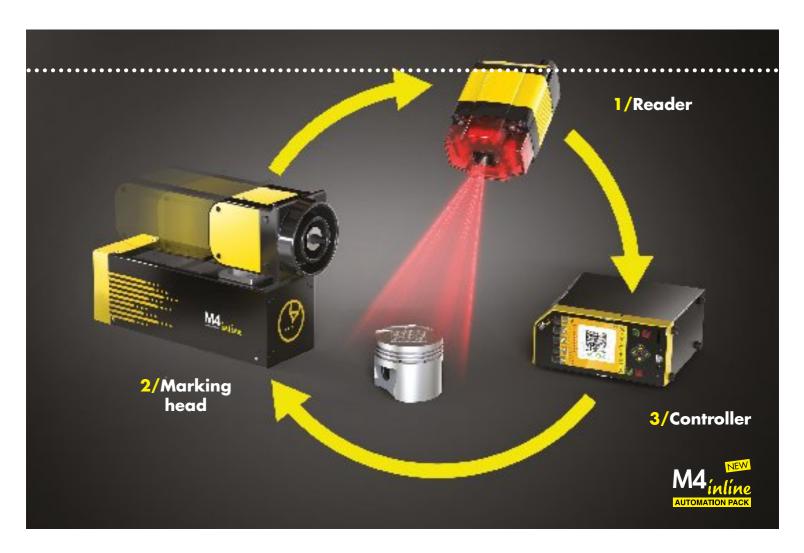
- Significant reduction of production downtime duration.
- Ensures the same marking quality on every piece.
- Operator peace of mind is guaranteed.
- Maintenance interval dependent on use.

Available on all our models, the IDI Mark&Track technology is your best ally to mark on every material hardness\*\*\*

<sup>\*\*</sup> Patent n°EP-06 764715.6 - Patent n°US-9,421,598 - Patent n° JP-2009-512631

<sup>\*\*\*</sup> On all materials that have a hardness less than 63 HRC







# SOLUTION

THE PRODUCTION LINE

#### ROBUST

Frame in moulded aluminium. X and Y axis both have linear feeds with anti backlash, providing accurate repeatability and quality of mark.

### HANDY

The mounting connection cable can be connected at the back or on the top of the marking head to facilitate easy integration into the production line. (Three mounting bracket positions are available).

### ERGONOMIC

Vertical or horizontal positioning. The marking head is easily adaptable to any rackmount configuration due to a handy connection at the back of the machine

#### FLEXIBLE

First integrated marking equipment fitted with a 16 bus card for greater time efficiency and productivity.

## NEW AUTONOMOUS

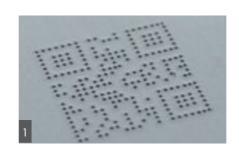
Mark, read and control: the Automation Pack allows a complete integration of the traceability function. More than a marking solution, the Automation Pack is a 100% autonomous traceability solution.

### READY TO DEPLOY

Turnkey monoenergy electrical solution to limit or eliminate the use of automation and complementary wiring, save installation time and achieve productivity gains.

## MARKING APPLICATIONS

(1) Marking of a QR code(2) Marking of a serial number on steel part







# TECHNICAL CHARACTERISTICS (M4 INLINE 50)

• Marking window: 50 x 55 mm/ 1.97" x 2.16"

- Carbide tungsten stylus with 90° angle (available with 60° and 120°)
- Protective cover as standard

	Head
L	138/ 5.43"
W	124/ 4.88"
Н	225/ 8.85"
weight	3,7 kg/ 8.15 lbs

Dimensions given in mm and inches, weight given excluding the cable

## POWER AND ENVIRONMENT

• Power: 250 W

Frequency: 50 to 60 HzInput power: 90 to 240 V

• Operating temperature:  $0^{\circ}$ C to +  $45^{\circ}$ C/ $32^{\circ}$ F to  $113^{\circ}$ F

# MARKING HEAD CONFIGURATIONS

- Head 50 (50  $\times$  55 mm)/ (1.97"  $\times$  2.16")
- Head 120 (120  $\times$  55 mm)/ (4.72"  $\times$  2.16")
- Head 200 (200  $\times$  55 mm)/ (7.87"  $\times$  2.16")

#### **STANDARDS**

- 2006/42/CE «machines» directive
- 2014/30/UE «CEM» directive
- 2014/35/UE «low voltage» directive
- FCC Chapter 15 directive

## M4 INLINE CONTROLLER WITH TWO MOUNTING POSITIONS



- High resolution (640x480) colour screen with icon based navigation
- Industrial USB keyboard
- Intelligent handling of the marking (IDI Mark & Track)
- RS232 connection, 16 bus card, Ethernet, 2 USB ports: Device & HOST



- Embedded software in different languages
- Memory capacity of 40Mb (up to 20,000 stored marking files with 40 characters in 1 line)
- Maintenance menu: includes preventive management, self-diagnostic function, dashboard use
- Fast updates through USB port
- Various marking modes: Text, variable datas, serial numbers, date and time stamp, logos and Datamatrix codes (2D), QR codes and standard OCR font
- (L x W x H) : 240 x 245 x 110 mm/ 9.44" x 9.64" x 4.33"
- Weight: 2.8 kg/6.17 lbs

#### MAIN ACCESSORIES

01 - Maintenance kit

02 - 5 or 10 m cable

03 - Software pack

04 - Datamatrix codes, QR codes and standard OCR font reading 05 - Adjustable mounting bracket

06 - Rack mount fixation

07 - Back fixing plate quick mounting

08 - 100% electric linear axis (200mm / 7.78 inches

## 16 BUS CARD

## TO OPTIMISE YOUR PRODUCTION PROCESSES

M4 inline, the first integrated marking equipment with a 16 bus card.

#### **TECHNICAL ADVANTAGES:**

• Easy setting: easy selection via drop down menus.

#### **CUSTOMER BENEFITS:**

- 30% time saving for the machine commissioning and installation.
- Reduction of global investment: Simple automation without the need for an external PLC.
- Optimization: reduction of production downtime.
- Easy to set up.

## **INNOVATIVE FEATURES**

## FOR YOUR ACCESSOIRIES AND SERVICES



#### IOB VIEWER

- Remote control of your marking equipment for configuration operations and maintenance support\*.
  - \* It requires internet connection and access to the internal network



#### / PIUG & MARK

- Linear axis easy to use.
- Single source electrical power.
- Store multiple Z Axis positions..
- Z axis standard travel of 200 mm/ 7.8 inches.



#### **ENERGY SAVING**

- 40% electrical energy saving in standby mode.
- 50 % reduction of embedded parts.
- Single source electrical power, without compressed air system, for energy routing and consumption savings. No compressor maintenance needed.
- Reduction of management devices thanks to an integrated logical (16 bus card configurable and easy to set up).

# INNOVATION CUSTOMIZED SOLUTIONS

- Technomark works with you to create a marking solution tailored to your exact requirement.
- Several technologies are gathered on the same site in order to carry out tests and draft dedicated studies.

## TWO CONTROLLED MARKING TECHNOLOGIES



### DOT PEEN

The principle is based on a hollow deformation of the material with vibrating carbide tip which creates a character by a series of points. It provides a permanent mark, without risk of fracture on all materials that accept deformation and have hardness less than 63 HRC.



#### Scribing

The principle is based on penetration of the marking point in the material under the effect of air pressure thereby creating a continuous line of a character of high legibility. This technology is silent, less than 72 dB (A), particularly suitable for marking noise generating parts, tools of high hardness and also for marking aspect.

## TECHNOMARK global presence

Our distribution network in established in 47 countries, including 5 Technoenters.



### **TECHNOMARK** services

### Pre sales

- Feasibility study and testing
- Sample making
  Validation of solutions (speed, quality etc.)
- Financing optionst

## After sales

- Phone support
- Service
- Factory maintenance contract
- Factory or onsite maintenance contract
- Product training



Average satisfaction rate of our customers over 3 years\*

Average recommendation rate of our customers over 3 years\*

\*source Cabinet Prestance, France study, january- 2018.

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