In 15 years, TECHNOMARK has become a market leader in the permanent marking industry with an installed base of over 15,000 units.

**CAPABILITY:**

TECHNOMARK has evolved over the last few years: starting as a manufacturer of standard marking equipment, we are now offering global solutions for industrial traceability, led by laser technology.

TECHNOMARK manufacture laser marking solutions:

- **Standard offer:** A range of workstation and integrated fiber lasers.
- **Custom-made offer:** Design of dedicated traceability solutions in collaboration with customers (bar code readers, vision systems etc.

Our expertise is used in various industrial sectors:

- Aerospace
- Medical
- Defence
- Automotive
- Nuclear
- Steel industry

**QUALITY ASSURANCE**

TECHNOMARK is the only French company to have obtained both the ISO 9001 version 2008 and the Investor in People certifications in the same year!

Certifications value:

- Our know-how and quality management
- Our interpersonal skills and quality of management
After eight years of experience working with our partners, TECHNOMARK is expanding its offering with a complete laser range designed to meet demanding needs in terms of production rate and marking quality.

The principle of laser technology is based on a high intensity, precision controlled beam focused and directed towards the part to be marked. The orientation of the beam is ensured by a galvanometric head composed of two mirrors. The marking is contactless and universal on all types of materials, including plastics, metals, ceramics etc.

GRAPHIX uses:

THE Yb FIBER
The optical fiber channels and carries the laser beam. This recent and high performance technology combines speed and marking depth. It is ideal for marking on metals including rough surfaces (castings, raw materials). Good results are also obtained on some plastics.

Our fiber lasers deliver high quality precision marking. Fiber lasers also offer no maintenance and are easy to set up and use which ensures a comparative low cost of ownership.

GRAPHIX RANGE BENEFITS

- Innovative solutions
- Fast and high quality marking
- Low consumption
- Guaranteed safety

with the "all in one" laser marking concept

suitable for precious metals (gold, silver, etc.)

air cooling

to meet existing standards
Applications

1. Datamatrix code and serial number marking
2. Tinted marking on PVC/TPR

Configuration

CLASS 1 OR 4 IN FIXED VERSION

GRAPHIX FIBER SERIE

Accessories and options

- Standard and Heavy Duty Rotary axis
- Fume extractor (dust and carbon filters)
- Rolling frame
- Holding tools for specific parts
- Screen support
- Focusing lens adapted to the marking field
- Plate support
- Reading system (readers and cameras)
- Solution for bars or long parts
COMPACT

“All in one”, the work station includes the laser source, the lens, the focal and the electronic control system.

SMART

An assisted opening door with 2 positions allows quick access to the parts. As an option, a side opening to mark bars and long parts.

FLEXIBLE

The X and Y multi-position placement of the marking head ensures a working area of 250 x 250 mm*.

INTELLIGENT

The motorized Z axis (maximum stroke of 300mm) allows the marking of all your parts. The rotary axis, as an option, enables 360° marking.

*with a focal length of 140 x 140 mm

Customer benefits

- Adapted ergonomics: space-saving and easy to use in a workshop
- Important loading volume: parts with dimensions up to 500 x 500 x 300 mm
- 4 marking zones: 2 positions in X and Y
- 3D mark function: with the digitally driven Z axis
- Economic: best quality / price / performance ratio in its market

Driving Software SIMPLE, INTUITIVE AND COMPLETE

Multiple marking capabilities:

- Alphanumeric characters
- Wide range of features: drawings, logos, geometric shapes
- Integrated Windows font library
- Creation of type 39, 128, /5, PDF 417, UPC barcodes, Datamatrix® ECC 200 (2D), QR code etc.
- Linear, angular and radial text
- Import files (vector, bitmap)
- Complementary axis management

Note: the combination of frequency, power and speed parameters will give you the marking you need, light or moderated, contrasted, nuanced or tinted
APPLIcATIONS

(1) Marking on a stainless steel parts
(2) Contrast marking on white plastic

Configuration CLASS 4* IN FIXED VERSION

GRAPHIX INLINE FIBER SERIE

* according to EN 60825-1 standard

Accessories and options

- Fume extractor (dust and carbon filters)
- Standard and Heavy Duty Rotary axis
- Focusing lens adapted according to the marking field
- Reading systems (readers and cameras)
Integrated laser

**SIMPLE**
Simplified implementation with its two positioning diodes.

**ROBUST**
Reduced service and maintenance with long life diodes.

**PRODUCTIVE**
High marking speed, ideal for medium to large production runs.

**FLEXIBLE**
A wide variety of marks, contrasts and finishes can be achieved on a selection of different material.

Customer benefits

- **Compact**: the reduced marking head makes its integration easier
- **Compatible**: with every reading systems on the market
- **Auto diagnostic system**: real time management of the laser operating state
- **Remote monitoring**: using a robot for simple functions (start, stop, end of marking, marking in progress etc.) Communication through Ethernet and RS232 port
- **Best TCO of its market**: (total cost of ownership)

Software **SIMPLE, INTUITIVE AND VERSATILE**

Multiple marking capabilities:

- Alphanumeric characters
- Wide range of features: drawings, logos, geometric shapes
- Integrated Windows font library
- Creation of type 39, 128, 2/5, PDF 417, UPC barcodes, Data-matrix® ECC 200 (2D), QR codes…
- Linear, angular and radial text
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TECHNOTECH
R&D AND CUSTOM MADE ENGINEERING DEPARTMENT

A dedicated team of engineers and technicians equipped with the latest 3D CAD generation collaborates to offer a range of capabilities:

- Mechanics
- Electronics
- Automation
- Industrial technology
- Vision / Reading systems
- Robotics

A PERSONALISED OFFER

TO ADVISE AND GUIDE YOU

UMS helps you build a cost effective laser marking solution adapted to your needs.

Services offered:
- Feasibility study & site evaluation
- Sample marking
- Test reports
- Technical studies
- Associated services (finance options, maintenance etc.)

INTERNAL TEST LABORATORY

A full range of the latest test equipment enable a variety of tests to be carried out to ensure all your marking application needs can be met.
**CASE STUDY  MECACHROME**

- **Activity:** Global leader in the design, engineering, machining and assembling of pieces and high precision assemblies, intended for aerospace, automotive, motor sport, defence and energy industries.

- **Specification:** integration of 7 autonomous laser marking stations (manual operation or semiautomatic) in production processes.

- **Chosen solution:** 7 custom made systems fitted with the GRAPHIX 10W Fiber laser.

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**WORK STATION**

Marking turbine blades for the aerospace industry to ensure their traceability through the entire manufacturing process. Marking stations are loaded manually or by robot and are equipped with a fume extractor. Turbine blades are held in a fixture and positioned on specific automated or manual rotary tables.

These stations are equipped with a high definition touch screen interface, customized and dedicated to each application. The software integrates manual, automatic and maintenance modes for automatic defect diagnoses.

An integrated reading camera allows you to instantly check the marking quality.
**TECHNICAL FEATURES**

**TECHNICAL DATASHEET EXTRACTS**
detailed for each power level

- **GRAPHIX FIBER serie** from 10 W to 50 W

**GRAPHIX FIBER SERIE**
- Laser power: 10 W
- Technology: pulsed fiber
- Wave length: 1 064nm
- Cooling: by air
- Pulse duration: from 100ns@20 KHz
- Electric consumption: 300 W

- Focus lens*: F-160S (100x100mm)
- Operating temperature: from 5° to 50°
- Non operating temperature: -10° to 60°
- Head sizes: 90mm x 112mm x 298mm
- Head weight: 2 kg
- Unit control weight: 16 kg
- Diode life time (expressed in MTBF): 50 000 hours (tested)

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**MATERIALS***

<table>
<thead>
<tr>
<th>MATERIALS*</th>
<th>GRAPHIX FIBER serie</th>
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</thead>
<tbody>
<tr>
<td>METALS</td>
<td></td>
</tr>
<tr>
<td>Treated or untreated steel</td>
<td>●</td>
</tr>
<tr>
<td>Carbide</td>
<td>●</td>
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<tr>
<td>Aluminum</td>
<td>●</td>
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<tr>
<td>Copper</td>
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<td>Gold</td>
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<tr>
<td>Silver</td>
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<tr>
<td>PLASTICS</td>
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<tr>
<td>Polyamides (PA)</td>
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<tr>
<td>Acrylonitrile butadiene styrene (ABS)</td>
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<tr>
<td>POM</td>
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<tr>
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<tr>
<td>Polyethylene (PEI)</td>
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<tr>
<td>Acrylic (coloured)</td>
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<td>Epoxy</td>
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<td>VARIOUS</td>
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<tr>
<td>Ceramics</td>
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<tr>
<td>Glass**</td>
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<tr>
<td>Wood</td>
<td>-</td>
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<tr>
<td>Paper</td>
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</tbody>
</table>

* * Effective  ● Medium  ○ Not adapted

* Exist in 65x65mm, 140x140mm, 180x180mm versions.

* Non exhaustive table

** Requires a different wavelength
ECO DESIGN

Technomark has always been concerned by environmental issues. For this reason, the company set up an action plan to reduce the environmental impact, like the use of recyclable materials, optimization of power consumption, reduction of carbon footprint (proximity of suppliers) etc.

APPLICATION EXAMPLES

1. Alphanumeric and 2D marking
2. Marking of a logo and a serial number on steel
3. Example of contrasted marking on steel:
   a. chromium plating
   b. cataphoresis
   c. painted

INTELLIGENT TECHNOLOGY

3D MARK

The management of X, Y, Z axis (up to 300mm maximum in Z axis) allows marking in 3 dimensions. The multi-level marking is carried out in a line-by-line sequence.

This solution is ideal for complex and various shaped parts.

[1] Multi-level marking with a 105 mm run, realised with the 3D mark function.
UMS services

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

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

TECHNOMARK global presence
Our network is settled in 47 countries.