



INTEGRABLE LASER MARKER

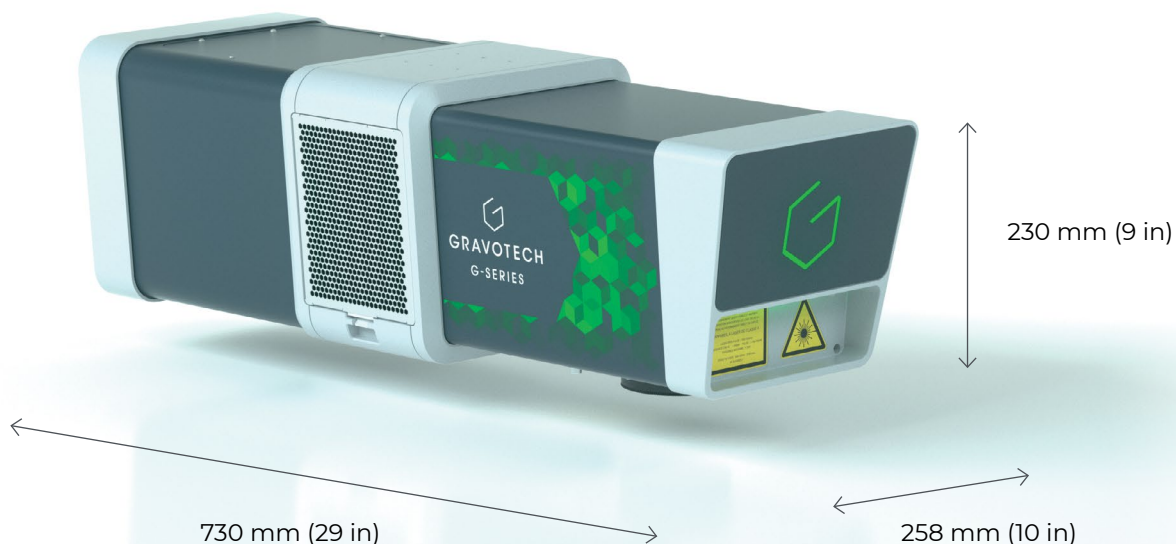
**GREEN LASER**



**GRAVOTECH**  
EXPRESSION OF THINGS



GREEN laser marker is designed for complex and cold markings on materials not reactive to other wavelengths. In addition, the GREEN laser has a small spot diameter that offers unsurpassed marking quality and accuracy on a wide range of materials.



### **COLD LASER MARKING**

Cold laser marking refers to marking and treatment carried out with minimal thermal stress. Laser beam concentration allows marking without generating heat into parts, avoiding any burning or damage. This marking doesn't alter the material and is an ideal solution for marking soft materials and sensitive components.

### **ULTRA-HIGH-DEFINITION MARKING**

Gravotech has developed green laser engravers that guarantee small and fine markings, it offers a fine spot size of 20  $\mu\text{m}$  and small markings with exceptional resolution while limiting thermal stress on the material. Small 2D Datamatrix, detailed logo, precise removal of thin layers of coating: the GREEN Series can meet all of your application challenges.

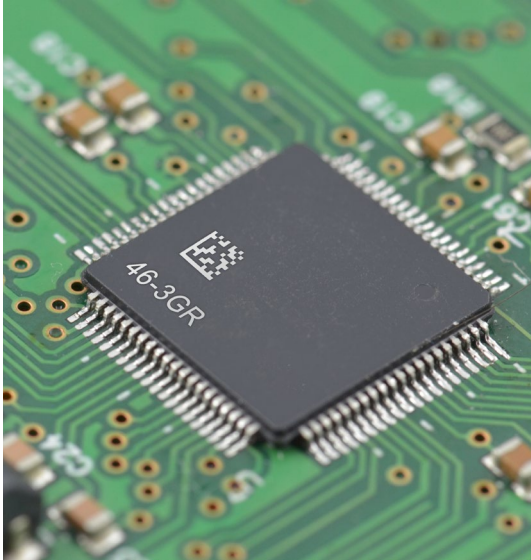
### **MARK THE IMPOSSIBLE**

Its versatility is almost unrivaled. This range uses a 532 nm wavelength to mark materials that would not normally react to infrared wavelengths: from rough to the most transparent plastics, reflective metals (copper, silver, gold), ceramic, cardboard, wood.

SEE OUR VIDEO



## KEY FEATURES



### Perfect Laser For Electrical Equipment

All electrical devices are using plastic with specific properties:

Insulating properties, not to conduct electricity.

Fire-resistant through the use of special flame retardant additives.

Can withstand high temperature.

These technical plastics with additives do not react to standard IR laser (1064 nm).

GREEN laser works perfectly and offers a contrasted marking to replace inkjet and label solutions.

You can use it for the CE & normative marking, technical specifications, pins & terminal references, etc.

This GREEN laser marker saves time and money as it requires no consumables and is a high productivity and eco-friendly solution.



### Precious Metal Specialist

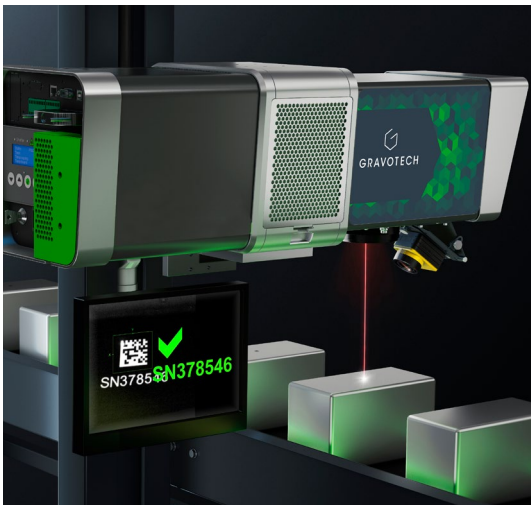
The Green series laser reacts perfectly with precious metals such as gold & silver but also on other highly reflective materials such as copper, stainless steel, and brass.

The very high absorption rate of 5320 nm wavelength gives a contrasted marking resistant to corrosion.

The risk of blackening and smearing is reduced by the low heat delivered by the laser beam.

You have no waste of materials as the laser marking is very thin and localized. It is also perfect to mark on thin metal sheets, there is no deformation due to heat with the laser.

Market Examples: Stores & Jewels, traceability of precious metals such as gold and silver, traceability of medical devices.



### Vision Manager – One Solution For Marking & Reading

The vision manager package helps you read codes and texts during and after the marking process, to ensure that the marking has been done properly and keep 100% traceability of your products.

Efficiency and performance: reading camera with lighting, auto-focus system and protective lens.

Easy to use: You are just a few clicks away from complete control of 1D/2D codes and your text (OCR fonts).

Gradation of the marking: Quality control of the readability of the codes (Grade).

Quality checking: sending status information and history to the PLC, activation of alarms, activation of the system to reject the faulty part.

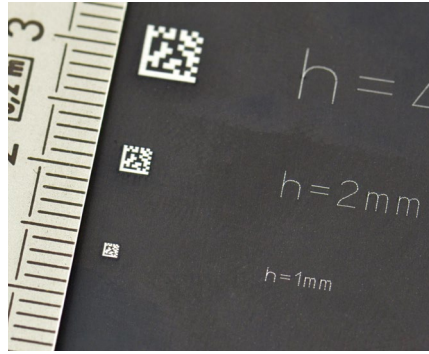
LEARN MORE ABOUT THIS PRODUCT



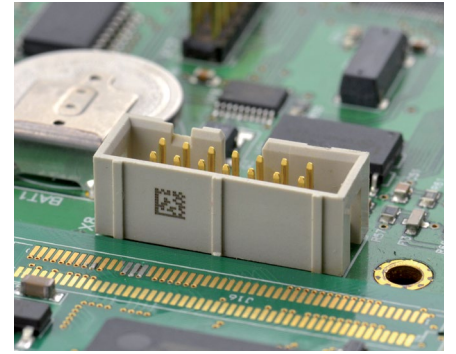
# APPLICATIONS



Marking on flame retardant plastics



Ultra small marking



Cold marking on sensitive parts



Versatility on multi-material parts



Marking on precious metals



Thin layer ablation

# MATERIAL CHARACTERISTICS

Technology		GREEN
Materials	Metals	●
	Plastics	●
	Ceramic	●
	Electrical and medical ceramic	●
	Wood, varnished wood	●
	Leather, textile	●
	Silicon, rubber	●
	Paper, cardboard, cork	●
	Engraving materials	●○●

Cutting = ● Engraving / Deep Marking = ○ Marking / Etching = ●

MAKE YOUR SAMPLES



## SOFTWARE



### Embedded on the Laser

This Green laser marker can work independently in a production line and generate all data necessary to your identification without a computer.

It can serialize your parts instantaneously, generate unique ID with complex marking content (timestamps with multiple formats, variables, counters, shift codes) and update the text and 1D/2D codes predefined in your templates.

This powerful embedded electronic can communicate and centralize information coming from your PLCs and database in real-time, saving you time while increasing your productivity.



### Lasertrace

Developed by Gravotech and enriched by numerous application experiences,

Lasertrace is a unique software specially designed to create marking files to be loaded in the laser system.

It includes a graphic composition to add text, logos and codes like Datamatrix in your marking templates.

You can describe your marking process according to specified rules: the actions (marking blocks) to be carried out, the sequence of execution and the possibility to implement a large choice of transitions (output activations, camera blocks, variables, etc).

## SERVICE & SUPPORT



### Training

Our training modules are designed to optimize your use of our solutions and are available for our full range of machines, software and accessories.



### Technical support

We bring you local support in your language in more than 50 countries, where we have established presence directly and with our distribution partners.



### Maintenance

Thanks to experience gathered with Gravograph and Technifor and our global presence in more than 50 countries with 150 Gravotech technicians and our distributor partners, we can offer you a wide range of services.

# TECHNICAL DATA

## GREEN SERIES

<b>Model</b>	G5
<b>Laser technology</b>	DPSS
<b>Power</b>	5W
<b>Peak power</b>	70 kW
<b>Frequency</b>	10-100 KHz
<b>Scan speed</b>	Up to 10000 mm/s (393.7 in/s)
<b>Marking area Available lenses</b>	F100: 65 x 65 mm (2.6 x 2.6 in) F160: 110 x 110 mm (4.3 x 4.3 in) F254: 150 x 150 mm (6.9 x 6.9 in)
<b>Communication interfaces (standard)</b>	Ethernet TCP/IP; Terminal block 8I / 8O; Laser Safety Dedicated I/O; RS232; USB
<b>Fieldbus</b>	PROFINET or ETHERNET IP
<b>Display</b>	Integrated screen with control panel for real-time supervision, easy diagnosis, software updates, memory back-up...
<b>Marking specifications</b>	+60 Gravotech fonts, Possible to convert User & TTF fonts, All formats of barcode and 2D codes, Logos
<b>Operating temperature</b>	15 to 35°C (59 to 95 F)
<b>Rated voltage</b>	100 - 240 V AC
<b>Marking head weight</b>	19.8 kg (43.65 lbs)
<b>Marking head cable length</b>	All-in-One laser
<b>Marking head installation direction</b>	All positions
<b>Laser Safety Classification</b>	Class 4



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