INTEGRABLE LASER MARKER

HYBRID LASER

GRAVOTECH

by BRADY

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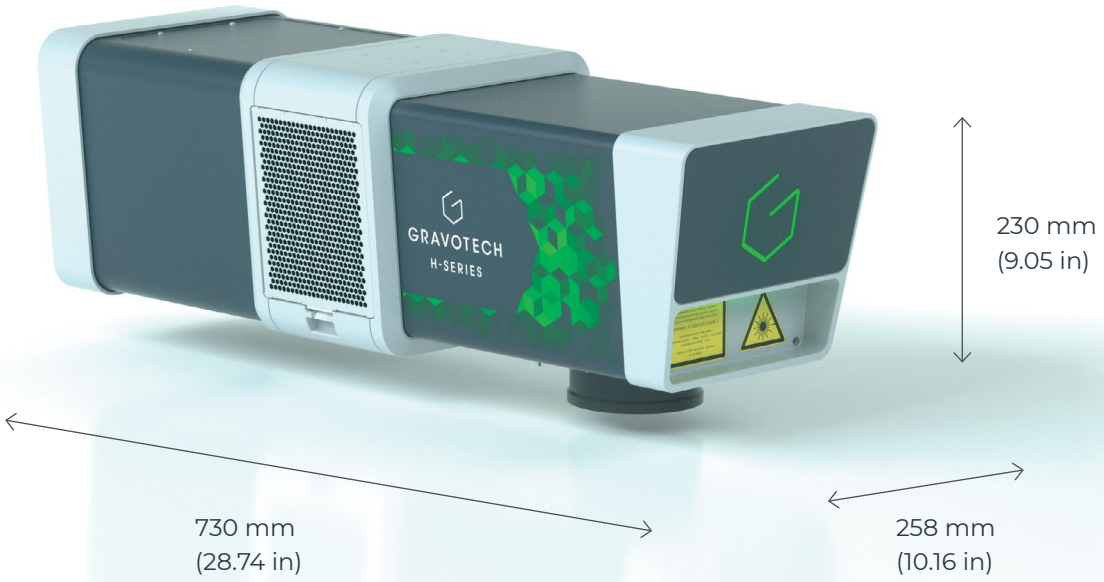
The best compromise between versatility, high quality and high speed to meet all your marking needs

The 1064 nm HYBRID laser marker is perfect for applications requiring a great versatility in terms of marking materials at the highest speed, from plastics to metal.



EXTRAORDINARY PEAK POWER

The Hybrid laser is characterized by its peak power and extremely short pulse duration. Thanks to its high peak power of up to 150,000 W per shot, which is 15 times more powerful than a standard fiber laser at the same energy level, it offers a unique interaction on plastics for high-contrast marking.

SHORT PULSE DURATION FOR AN OUTSTANDING QUALITY MARKING

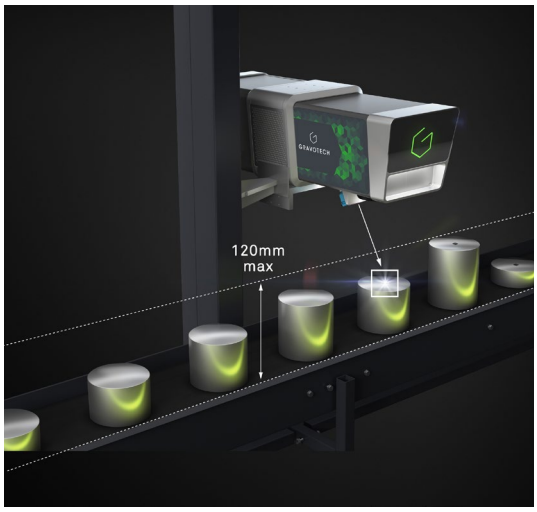
The small diameter of the laser spot is combined with a very short pulse duration of 8ns, 10 times shorter than a standard fiber laser. The quality of the marking is perfect, with no halos or distortion due to heating. It is the ideal solution for applications requiring thin marking and perfect aesthetic results such as the horology and jewelry sectors.

VERSATILITY

All types of marking finishes are possible thanks to the power range of the HYBRID laser. It is the perfect solution when you have a variety of parts made of different materials from hard metal to soft plastics.

SEE OUR VIDEO

KEY FEATURES

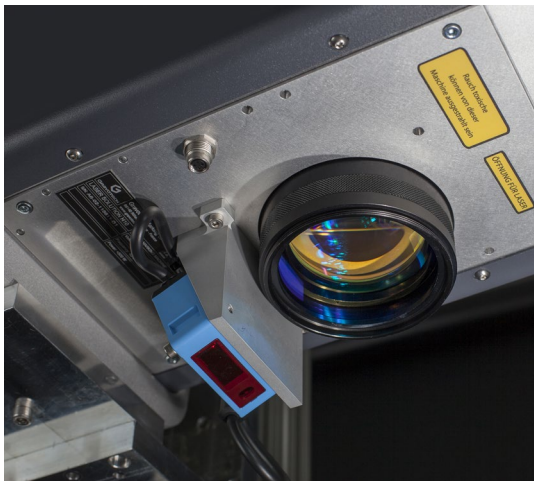


More flexibility in your production

This module guarantees you a exact and consistent laser marking without any mechanical adaptation when you change the type of part. It simplifies your integration:

- No need to re-adjust the focal distance, even when you are marking various types of parts with different heights on the same line.
- It offers more flexibility on your production lines, giving the possibility to have parts with a difference of up to 120 mm (4.1 in) height without moving the laser.

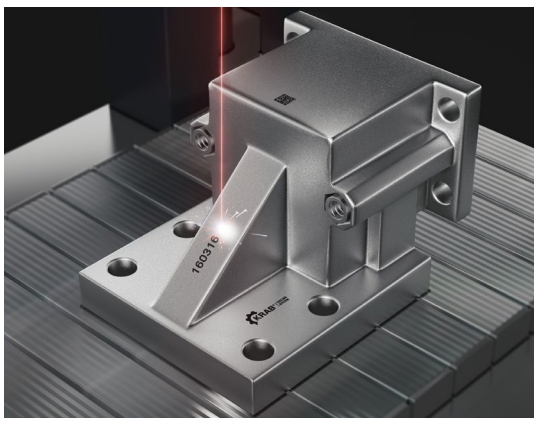
Just select the right marking job and you are ready to switch to another product line.



More quality in all conditions

This module is combined with a distance sensor to make an Autofocus. The laser detects automatically the part surface and adjust the focal distance without any calibration or waiting time:

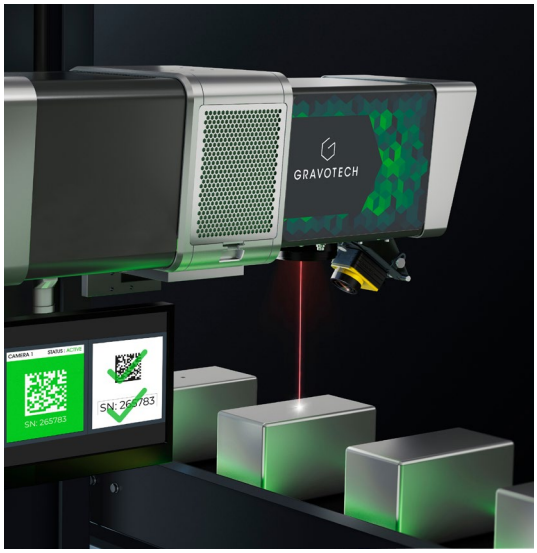
- Guarantee of optimal marking quality regardless of the flatness of the parts or their shape.
- Constant contrast & depth. Boost your productivity with the fastest solution.
- Instant refocusing: Less than 100ms to change focal distance.
- Reduce your marking cycle time.



More possibilities in complex part shapes

This HYBRID laser marker also manages cylindrical surfaces, angled planes and multilevel surfaces without any head movement:

- Instantaneous marking on complex part with the possibility to mix curved surfaces and angled planes at different heights up to 120 mm (4.1 in) amplitude.
- No character deformation.
- Uniform contrast over the entire engraving area.



Vision Manager – One solution for marking & reading

This package helps you read codes and texts during the marking process, to ensure the marking has been done properly and keep a 100% traceability of your products:

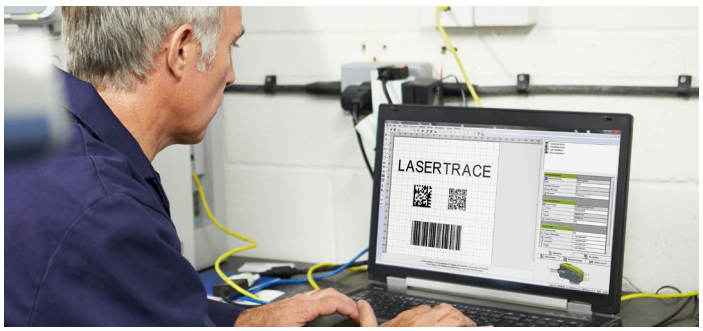
- High performance: reading camera with lighting, auto-focus system and protective lens.
- Easy set up: You are a few clicks away to complete control of the 1D/2D codes and your text (OCR fonts).
- Quality control of the code visibility (Grade).
- Monitoring of the marking quality by triggering large choice of operations: send status info and history to the PLC, activation of alarms, activate actuators to reject faulty parts.

SOFTWARE

Embedded on the Laser

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

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

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).

ACCESSORIES

Exhaust system

Laser fume extractors guarantee clean and safe work and working environement.

Rotary device

Rotation system for cylindrical part marking.

eZ Laser

Motorized and autonomous Z-axis for laser marker.

Mini-inline - Innovative solutions for permanent marking

Gravotech has designed a turnkey marking solution that will fit perfectly on your production lines.

Mini-inline is a Class-1 nozzle to perform marking without designing a costly class-1 casing to secure all the marking process.

Designed for Marking of large industrial parts: This class 1 solution is fully customizable to fit your parts perfectly.

MAKE YOUR SAMPLES

APPLICATIONS

Foaming effect on plastics

Contrasted marking on plastic without any additives

Annealing on stainless steel

High quality marking on any plastics colors

Coloring of coated material

Surface marking on metals

SERVICE & SUPPORT

Training

Standard or customized training sessions, at your place or online.

Technical Support

Gravotech experts dedicated to support and guide you.

Maintenance

Gravotech has established a dedicated program for each machine type, including cleaning, adjustments, safety checks and more.

THEY TRUST US

TECHNICAL DATA

	HYBRID SERIES
Model	H10 / H20
Laser technology	DPSS
Power	10 W / 20 W
Peak power	60 kW
Frequency	10-100 Khz
Scan speed	Up to 10000 mm/s (393.7 in/s)
Marking area - Available lenses	F100: 65 x 65 mm (2.56 x 2.56 in) F160: 110 x 110 mm (4.33 x 4.33 in) F254: 175 x 175 mm (6.89 x 6.89 in) F330: 205 x 205 mm (8.07 x 8.07 in)
Communication Interfaces (standard)	Ethernet TCP/IP; Terminal block 8I / 8O; Laser Safety Dedicated I/O; RS232; USB
Fieldbus	PROFINET or ETHERNET IP
Display	Integrated screen with control panel for: real-time supervision, easy diagnosis, software updates, memory back-up...
Marking specifications	+60 Gravotech fonts, Possible to convert User & TTF fonts, All formats of barcode and 2D codes, Logos
Operating temperature	15 - 40°C (59 to 104 F)
Rated voltage	100 - 240 V AC
Marking head weight	19.8 kg (43.651 lbs)
Marking head cable length	All-in-One laser
Marking head installation direction	All positions
Laser safety classification	Class 4 Laser system, possibility to switch in Class 1 for integration on a station or equipped with Mini-inline module

GRAVOTECH
by BRADY

info.uae@gravotech.com
+971 4 456 5729
www.gravotech.ae

GRAVOTECH DMCC
SABA 1 Tower, Office 1307
Jumeirah Lake Towers,
Dubai, United Arab Emirates

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