

The image features a black and silver fiber laser marking system against a blue background with abstract curved lines. The system consists of a horizontal marking head and a base unit. The marking head has a yellow laser radiation warning label and a small yellow triangle icon. The base unit has a red and yellow emergency stop button and a serial number label. The text 'miniGIANT™' is prominently displayed in the center, with 'mini' in red and 'GIANT' in grey. Below it, 'FIBER LASER MARKING SYSTEM' is written in white. The Laser Photonics logo is in the bottom right corner.

# ***mini*GIANT™**

## **FIBER LASER MARKING SYSTEM**



### Industries

- Defense
- Government
- Aerospace
- Automotive
- Metal Fabrication
- Direct Parts Marking

## MiniGIANT™ Fiber Laser Marking System

The MiniGIANT™ evokes a striking and professional appearance. This design concept was developed to bring industrial marking capabilities to commercial production environments. This light, portable, user-friendly model can be easily operated by tradesmen.

### Features Highlight

- The world's thinnest laser marking system (only 5.4 cm wide)
- Unique, foldable design
- 20W fiber laser with 100,000 hours of working life

**High Tech Applications: The MiniGIANT™ line produces a wide variety of Permanent, Legible, Non-Removable Marks on a wide variety of materials.**



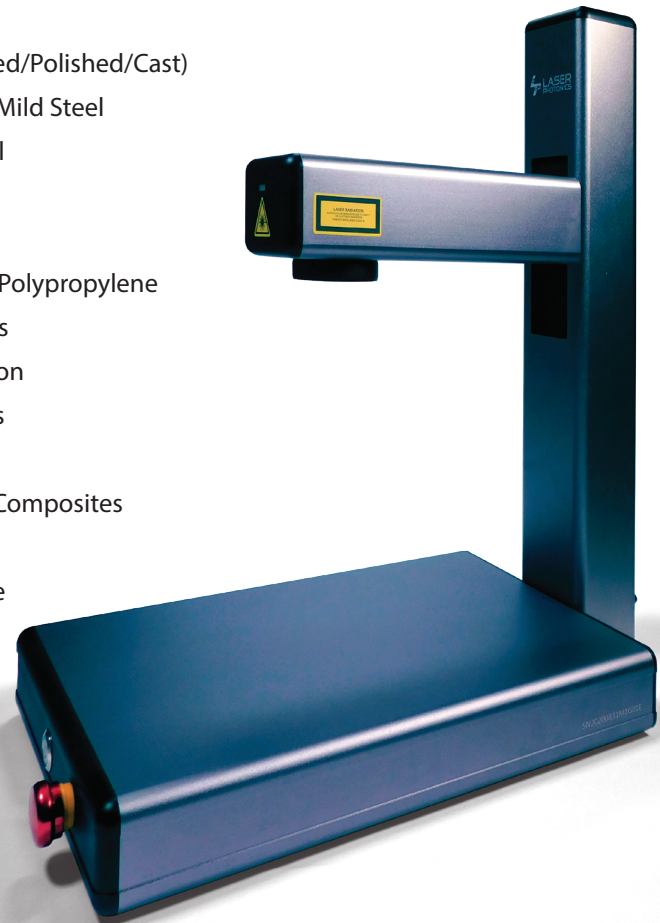
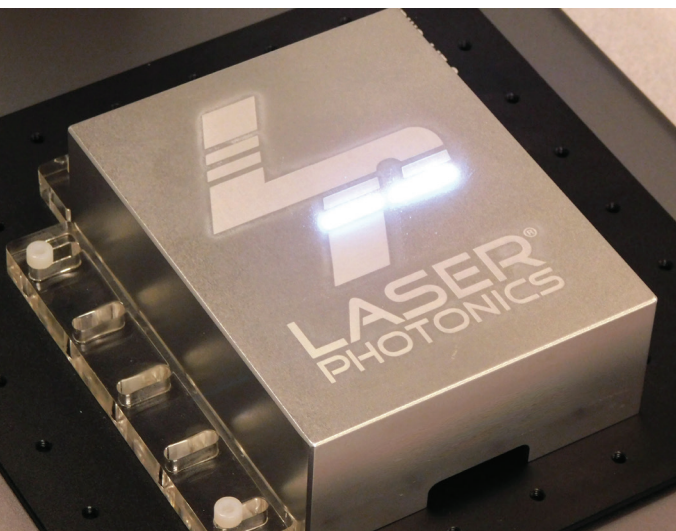
### Applications and Types of Marks

ITO or Paint Removal  
Backlit Button Marking  
Medical/Automotive Coding  
IC Chip Package Marking  
2D UDI/UID Barcoding  
Part Numbering  
3D Engraving/Deep-Engraving

Surface Texturing  
OCR Code Marking  
"On-The-Fly" Marking  
Alphanumeric Marking  
Logos and Schematics  
Sequential Serial Numbers  
Lot Codes and Date Codes  
Ablation (Anodized, Painted or Coated)

### Materials

Aluminum (Anodized/Polished/Cast)  
Stainless Steel and Mild Steel  
Titanium and Nickel  
Copper and Brass  
Carbide  
Polycarbonate and Polypropylene  
Painted Metal Alloys  
Chrome and Cast Iron  
Wood and Ceramics  
Rubber and Silicon  
Marble and Stone Composites  
PVC  
Plastic and Graphite  
Fabrics and Leather  
Acrylic and MDF  
Galvanized Metals  
And More!



**miniGIANT™**  
FIBER LASER MARKING SYSTEM

## MiniGIANT™ by Laser Photonics

The MiniGIANT™ is the world's first affordable Class IV 20 Watt Laser Marking Machine. It is the thinnest laser marking system on the market. Measuring in at 5.4cm, and weighing only 10kg, this desktop laser is not only portable—it is easy to carry! The MiniGIANT™ is a commercial-grade marking system that is compatible with both 32-bit and 64-bit Windows 10 Operating Systems. It requires zero maintenance and comes with an integrated fiber cable-hidden structure, as well as a two-year manufacturer's warranty. This state-of-the-art, low to medium volume, commercial-grade laser marking system can be used in most light manufacturing materials processing environments for a fast, precise, and incredibly productive approach to subtractive manufacturing.

Additionally, the MiniGIANT™ is the only laser marking machine in its class to offer an optional adaptable Class I product enclosure.

The MiniGIANT™ Marking Laser includes a 20W Fiber laser along with a 160mm F-Theta lens proving a 4" x 4" marking area.

## MiniGIANT™ Design: Main Features:

Standard features include:

- Standard wall plug operation with high electrical efficiency
- Standard supply voltage (110/220 VAC) 8 amps
- Standard wall-plug power source with high electrical efficiency
- 20W Fiber or 20W CO2 laser with 4" x 4" marking area
- Repeat Pulse Frequency Range 30 – 60 kHz
- Laser Photonics Fiberscan C3 LT software
- Free RVT (Remote Video Training)
- Optional easy access single door Class I product enclosure with CDRH compliant interlocks
- Emergency stop and laser off switch
- Optional Backpack carrying case
- Optional fume Extractor
- Laser MTBF of 100,000 hours
- Repeat Accuracy 0.01mm

## 20W Fiber Laser:

Fiber Lasers are a great leap forward in processing all metal and coated soft material applications. Our Fiber Lasers are easily integrated into industrial processes in comparison with conventional laser due to:

- State-of-the-art, air-cooled, Ytterbium Q-switched fiber laser (up to 2mJ) for marking on virtually any material
- CW or Q-switched fiber laser options with high repetition rate
- Excellent TEM00 beam quality ( $M2 < 1.05$ )

- Exceptionally High Reliability with over 30,000 hours estimated maintenance-free operation
- Very high 100,000 hours MTBF
- Flexible cable-beam delivery system
- Optimized for Direct Part Marking (DPM) applications including UDI/UID Barcoding and 3D Deep Engraving
- Red diode pointer for easy application setup
- Two-year manufacturer's warranty on laser components

## FiberScan C3™ / FiberScan C3™ LT Software Proprietary Software Options:

- FiberScan C3 LT is designed to operate on the Window platform
- FiberScanC3 supports remote access data base connectivity designed to operate on the Window platform

This user-friendly software entails a fully integrated driver, remote diagnostic capabilities for worldwide support and multiple hardware interfaces for the ability to execute any CO<sub>2</sub> or Fiber Laser marking system.

These databases include a materials application system and a fixture database. The materials application system allows a user to define a laser process, give the process a unique name and subsequently link the process to graphic programs. A process can include multiple passes using different values for power, frequency and speed on each laser pass.

The database can contain and manage many thousands of different process 'recipes'.

The fixture database allows the user to control fixture offsets and define step and repeat processes. Just like the material database, any WLJ job can use any fixture defined in the fixture database.

The link allows all appropriate graphic and process information to be automatically loaded when the operator selects the lasing file.

At any time the operator can change the links, for example a lasing job that is normally marked on stainless steel, can be marked on brass by selecting the brass process file prior to executing the job program file.

Operators don't have the need to remember fonts and logos for a particular job because FiberScan C3™ automatically performs all required graphic loading.

FiberScan C3™ does not require users to learn any programming languages or special codes and provides all of the flexible and graphic controls that users are accustomed to such as radial marking, aspect control, character spacing, angular rotations and full justification.







AVOID EXPOSURE  
INVISIBLE LASER RADIATION  
IS EMITTED FROM THIS APERTURE

COMPLIES WITH 21 CFR  
1040.10 AND 1040.11

Requirements beyond those listed above will be quoted upon request. Contact Laser Photonics office or visit our website at [www.laserphotonics.com](http://www.laserphotonics.com) if you need any assistance determining which capabilities best suit your needs.

Safety Considerations during Operation: 1064 nm wavelength laser light emitted from this laser system is invisible and may be harmful to the human eye. Proper laser safety eyewear must be worn during operation at all times.

21CFR 1040.10 Compliance: Fiber Lasers are a Class 4 laser as designated by the CDRH and meet the full requirements for a stand-alone laser system as defined by 21 CFR 1040.10 under the Radiation Control for Health and Safety Act of 1968. As an added level of security, a redundantly switched safety interlock system helps prevent accidental exposure to excess laser radiation. Plus the system is equipped with an electrical power manual reset, a key-locked laser power switch and a remote interlock connector. Finally, the system has audible and visible emission indicators with five (5) second emission delay settings. All these features, in combination, constitute the laser radiation safety system which allows the MiniGIANT™ Series of equipment to be used in a safe and secure manner.



The most trusted brand of industrial laser machines  
for the most demanding industries.

**Laser Cleaning • Laser Marking • Laser Engraving • Laser Cutting • 3D Metal Printing**

Aerospace • Automotive • Defense • Nuclear • Shipbuilding • Space Exploration



**Titan Series**



**OEM Marking Kits**



**Cutting Systems**



**LaserTower™ Series**

Laser Photonics is the leading industrial brand in high-tech laser systems for laser marking, laser cutting, laser engraving, and other material processing applications. Our systems are, currently and historically, used by manufacturers in the automotive, aerospace, industrial, defense, electronic, semiconductor, flat panel and medical industries around the world. Contact us to learn more about our marking, cutting and engraving systems.

**Contact Us Today**

and learn what clean laser technology  
can do for your business

**Laser Photonics**

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