NEED A LASER SYSTEM?

Whether that need is for company branding or to meet industrial and government regulations, manufacturers are using laser systems to mark and engrave permanent identification on their components and parts.

- 2D Data Matrix and 1D Barcodes
- UDI Compliance Marking and UID codes
- Serial Numbers, Date Codes, VIN Numbers
- MFG Lot/Batch Traceability
- Logos, Graphics, or any Custom Marks

WHICH LASER SYSTEM IS RIGHT FOR YOU?

Selecting the right laser system for your application is based on a number of factors. You’ll need to consider what type of material you are marking, what type of marking process you need, the depth and quality of mark desired, the cycle time and of course the budget.

The easiest approach to choosing your system is to send us your part samples to have tested in our laser lab. Contact our product specialist in your area, and let us help you choose the right solution for your laser application.

Visit gtschmidt.com/laser-marking-systems to learn more.

Let us help you.
Sometimes larger parts need to be marked, and this makes laser enclosures impractical. Our Class IV Laser Components ensure a good engraving process and easy integration into a wide range of applications.

**Fiber Lasers**

*DESCRIPTION*

Fiber lasers have the most application flexibility, the widest range of laser process capabilities, and the ability to mark on the largest variety of materials.

* BENEFITS *
- Higher output power, excellent beam quality.
- Longer pulse width equals more energy for deep engraving in metals.
- Pulse energy and pulse peak power are independent of repetition rate.
- Excellent pointing stability, outstanding marking performance.

*AVAILABLE WATTAGES*
- 20, 30, 50, and 100 watt

*BEST MATERIALS*
- All metals, coated metals, hardened plastics and some ceramics

*LASER PROCESSES*

**YVO4 (Vanadate) Lasers**

*DESCRIPTION*

YVO4 are dye diode pumped solid state lasers that gained popularity through technology advancements over the older dye pumped bulk YAG lasers.

With the use of frequency multiplier, these lasers can exist at three different wavelengths: 1064 nm (infrared), 532 nm (green), and 355 nm (ultraviolet).

* AVAILABLE IN *
- 10 and 20 watt

**CO2 Lasers**

*DESCRIPTION*

CO2 are gas lasers with high efficiency and good beam quality. CO2 lasers are ideal for non-metal laser marking and laser engraving applications.

* BEST MATERIALS *
- Paper, cardboard, wood, leather, glass, ceramics and plastics

*LASER PROCESSES*
- Laser Marking, Deep and Fine Engineering, Carbonization and Foaming

* AVAILABLE IN *
- 10 and 20 watt

**Laser System Workstations**

*CLASS IV LASER COMPONENTS*
- Build your own laser lab environment
- Retrofit a current system or integrate into a current cell
- Great for marking a variety of part shapes and sizes without limitation of a fixed cabinet
- Special safety eye wear and safety restrictions required

*CLASS IV ENCLOSED SYSTEM*
- Enclosures adhere to federal protective housing guidelines
- Guaranteed light tight and do not emit any laser beam or radiation
- Equipped with protective glass, proper labels and fail-safe interlocks

*WORKSTATION OPTIONS & ACCESSORIES*
- 2D Data Matrix, 1D Barcode Marking, Reading & Verifying
- Rotary devices for marking round parts
- Part feeders, indexing tables, X-Y Tables
- Robotics for Automation
- Manual or Programmable Power 2-axis for part height variance
- Fume Extraction

**Lasers**

**LASER MARKING, DEEP AND FINE ENGRAVING, CARBONIZATION AND FOAMING**

**Fiber Lasers**

**INFRARED 1064 nm LASERS**
- High peak power, short pulse infrared lasers offer reliable and precise marking on ferrous and non-ferrous metals, as well as some plastics. Great for marks, laser etching, laser ablation.
- AVAILABLE IN: 10 and 20 watt

**GREEN 532 nm LASERS**
- Due to their higher absorption rate, Green lasers are ideal for organic polymers, silicone, PCB boards, solar and semiconductor materials as well as highly reflective metals like copper, gold and silver.
- AVAILABLE IN: 4 and 10 watt

**UV 355 nm LASERS**
- UV lasers have excellent marking quality, very fine spot size and are ideal for applications requiring a low thermal footprint. Great for marking leaf yet sensitive materials like glass and ceramics.
- AVAILABLE IN: 3 watt

**CLASS I ENCLOSED SYSTEM**

*BEST MATERIALS*

- All metals, coated metals, hardened plastics and some ceramics

*LASER PROCESSES*


**CLASS IV LASER COMPONENTS**

*DESCRIPTION*

Green lasers are ideal for marking on non-metallic materials with a lower thermal footprint. Great for marking delicate and sensitive materials like glass and ceramics.

* BEST MATERIALS *
- Paper, cardboard, wood, leather, glass, ceramics and plastics

*LASER PROCESSES*
- Laser Marking, Deep and Fine Engineering, Carbonization and Foaming

* AVAILABLE IN *
- 10 and 20 watt
Sometimes larger parts need to be marked, and this makes laser enclosures impractical. Our Class IV Laser components ensure a good marking process and easy integration into a wide range of applications.

**Fiber Lasers**

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Fiber lasers have the most application flexibility, the widest range of laser process capabilities, and the ability to mark on the largest variety of materials.

**BENEFITS**
- Higher output power, excellent beam quality.
- Longer pulse widths equals more energy for deep engraving in metals.
- Pulse energy and pulse peak power are independent of repetition rate.
- Excellent pointing stability, outstanding marking performance.

**AVAILABLE WATTAGES**
- 20, 30, 50, and 100 watt

**CO2 Lasers**

**DESCRIPTION**
CO2 gas lasers have high efficiency and good beam quality. CO2 lasers are ideal for non-metal laser marking and laser engraving applications.

**BEST MATERIALS**
- Paper, cardboard, wood, leather, glass, ceramics and plastics

**LASER PROCESSES**
- Laser Marking, Deep Engraving, Laser Batch, Laser Ablation, Carbonization and Foaming

**AVAILABLE WATTAGES**
- 10 and 30 watt

**YVO4 (Vanadate) Lasers**

**DESCRIPTION**
YVO4 are diode pumped solid state lasers that gained popularity through technology advancements over the older lamp pumped bulk YAG lasers.

With the use of frequency multipliers, these lasers can emit at three different wavelengths: 1064 nm (infrared), 532 nm (green), and 355 nm (ultraviolet).

**AVAILABLE WATTAGES**
- 10 and 20 watt

**INFRARED 1064 nm LASERS**
High peak power, short pulse infrared lasers offer stable and precise marking on ferrous and non-ferrous metals, as well as some plastics. Great for marks, laser etching, laser ablation.

**AVAILABLE IN**
- 10 and 20 watt

**GREEN 532 nm LASERS**
Due to their higher absorption rate, Green lasers are ideal for oxygen polymers, silicone, PCB boards, solar and semiconductor materials as well as highly reflective metals like copper, gold and silver.

**AVAILABLE IN**
- 4 and 10 watt

**UV 355 nm LASERS**
UV lasers have excellent marking quality, very fine spot size and are ideal for applications requiring a low thermal footprint. Great for marking leaf and select materials like glass and ceramics.

**AVAILABLE IN**
- 3 watt

**Laser System Workstations**

**CLASS IV LASER COMPONENTS**
- Build your own laser lab environment
- Retrofit a current system or integrate into a current cell
- Great for marking a variety of part shapes and sizes without limitation of a fixed cabinet
- Special safety eye wear and safety restrictions required

**DESCRIPTION**
Laser processing and engraving equipment provides a wide range of applications and can be custom built to suit specific needs.

**WORKSTATION OPTIONS & ACCESSORIES**
- 2D Data Matrix, 1D Barcode Marking, Reading & Verifying
- Rotary devices for marking round parts
- Part feeders, indexing tables, X-Y Tables
- Robotics for Automation
- Manual or Programmable Power 2-axis for part height variance
- Fume Extractors

**CLASS IV ENCLOSED SYSTEM**
- Enclosures adhere to federal protective housing guidelines
- Guaranteed light tight and do not emit any laser beam or radiation
- Equipped with protective glass, proper labels and fail-safe interlocks

**DETAILED SPECIFICATIONS**
- Class IV: Generally, must have a minimum of 100 watts or more.
- Class IV: Laser marking and engraving equipment provides a wide range of applications and can be custom built to suit specific needs.

**BEST MATERIALS**
- All metals, coated metals, bonded plastics and some ceramics

**LASER PROCESSES**

**AVAILABLE WATTAGES**
- 10 and 20 watt

**GREEN 532 nm LASERS**
- Due to their higher absorption rate, Green lasers are ideal for oxygen polymers, silicone, PCB boards, solar and semiconductor materials as well as highly reflective metals like copper, gold and silver.

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**AVAILABLE IN**
- 10 and 20 watt

**UV 355 nm LASERS**
- UV lasers have excellent marking quality, very fine spot size and are ideal for applications requiring a low thermal footprint. Great for marking leaf and select materials like glass and ceramics.

**AVAILABLE IN**
- 3 watt

**BENEFITS**
- Higher output power, excellent beam quality.
- Longer pulse widths equals more energy for deep engraving in metals.
- Pulse energy and pulse peak power are independent of repetition rate.
- Excellent pointing stability, outstanding marking performance.

**APPLICATIONS**

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

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**ULTRASOUND LASER MARKING**

**DESCRIPTION**
- Ultrasonic laser marking is a non-contact method of marking or engraving materials with a laser beam. This process is fast, accurate, and produces high-quality Marks.

**APPLICATIONS**

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

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**FIBER LASER MARKING**

**DESCRIPTION**
- Fiber lasers use a small beam of light to create precise, sharp, and durable marks.

**APPLICATIONS**

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

---

**CO2 LASER MARKING**

**DESCRIPTION**
- CO2 lasers use a gas beam to create precise, sharp, and durable marks.

**APPLICATIONS**

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

---

**YVO4 LASER MARKING**

**DESCRIPTION**
- YVO4 lasers use a solid-state beam to create precise, sharp, and durable marks.

**APPLICATIONS**

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

---

**INFRARED LASER MARKING**

**DESCRIPTION**
- Infrared lasers use a beam of light to create precise, sharp, and durable marks.

**APPLICATIONS**

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

---

**GREEN LASER MARKING**

**DESCRIPTION**
- Green lasers use a beam of light to create precise, sharp, and durable marks.

**APPLICATIONS**

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

---

**UV LASER MARKING**

**DESCRIPTION**
- UV lasers use a beam of light to create precise, sharp, and durable marks.

**APPLICATIONS**

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

---

**CLASS IV LASER COMPONENTS**

**DESCRIPTION**
- Class IV: Generally, must have a minimum of 100 watts or more.

**APPLICATIONS**
- Laser processing and engraving equipment provides a wide range of applications and can be custom built to suit specific needs.

**PACKAGE OPTIONS**
- 20, 30, 50, and 100 watt

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**CLASS IV ENCLOSED SYSTEM**

**DESCRIPTION**
- Enclosures adhere to federal protective housing guidelines
- Guaranteed light tight and do not emit any laser beam or radiation
- Equipped with protective glass, proper labels and fail-safe interlocks

**APPLICATIONS**
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