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 system for your laser application.

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

Let us help you.

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Fiber Lasers

DESCRIPTION
Fiber lasers have the most application flexibility, the widest range of laser process capabilities, and the ability to mark 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, bordered plastics and some ceramics

LASER PROCESSES
Laser Marking, Annular, Dot Marking, Deep and Fine Engraving, Laser Etching, Laser Ablation, Carbonization and Foaming

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).

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 organic polymers, silicon, 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 hard yet sensitive materials like glass and ceramics.

AVAILABLE IN: 3 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 Engraving, Carbonization and Foaming

AVAILABLE IN: 10 and 20 watt

Laser System Workstations

CLASS IV ENCLOSED SYSTEM
- Enclosure adheres 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

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 Laser Components

Sufficient larger parts need to be marked, and this makes laser enclosures impractical.

Our Class IV Laser components ensure a good laser marking process and easy integration into a wide range of applications.

Laser System Workstations

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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 Engraving, Carbonization and Foaming

AVAILABLE IN: 10 and 20 watt

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Paper, cardboard, wood, leather, glass, ceramics and plastics

LASER PROCESSES
Laser Marking, Deep and Fine Engraving, 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.

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 I 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

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.
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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.

DESCRIPTION
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 markers, 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, silicon, 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 hard yet sensitive materials like glass and ceramics.

AVAILABLE IN: 3 Watt

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

Fiber Lasers

YVO4 (Vanadate) Lasers

Available Wattages
20, 30, 50, and 100 Watt

Best Materials
All metals, coated metals, bonded plastics and some ceramics

Lasers Processes
Laser Marking, Anodizing, Dot Marking, Deep and Fine Engraving, Laser Etching, Laser Ablation, Carburization and Foaming

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 markers, 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, silicon, 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 hard yet sensitive materials like glass and ceramics.

AVAILABLE IN: 3 watt

CO2 Lasers

Best Materials
Paper, cardboards, wood, leather, glass, ceramics, and plastics

Lasers Processes
Laser Marking, Deep and Fine Engraving, Carburization and Foaming

AVAILABLE IN: 10 and 30 watt

Laser Marking, Deep and Fine Engraving, Carbonization and Foaming

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.

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

**BENEFITS**
- Higher output power, excellent beam quality.
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- 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, hard ceramics and some ceramics

**LASER PROCESSES**

**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.
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- AVAILABLE IN: 4 and 10 watt

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- AVAILABLE IN: 3 watt

**DESCRIPTION**
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**LASER PROCESSES**

**DESCRIPTION**
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**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 30 watt

**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.

**WORKSTATION OPTIONS & ACCESSORIES**
- 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

**BEST MATERIALS**
- All metals, coated metals, hard ceramics and some ceramics

**LASER PROCESSES**

**WORKSTATION OPTIONS & ACCESSORIES**
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- Rotary devices for marking round parts
- Part feeders, indexing tables, X-Y Tables
- Robotics for Automation
- Manual or Programmable Power Z-axis for part height variance
- Fume Extractors

**Laser System Workstations**

**CLASS IV LASER COMPONENTS**
- Inclined with 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

**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
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LASER SYSTEMS PRODUCT GUIDE

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