



MADE IN USA
epiloglaser.com



FiberMark*

Metal Engraving and Plastic Marking Machines

FiberMark Laser Systems

Product Line Demonstration

Epilog Laser manufactures high-performance fiber and CO2 laser systems that produce unbeatable engraving, cutting and marking results. We also have the most highly-regarded technical support team in the industry. We're committed to helping our customers succeed - before, during and after the sale.

Explore our FiberMark brochure and product line DVD demonstration to learn more about our laser systems and to find out why Epilog Laser has been the top choice of engravers for over 25 years.

After you have reviewed our brochure, give our sales team a call at +1 303-277-1188 or contact your local distributor with any questions or to set up a demonstration.

Industrial Marking Solutions

MADE IN USA



The heart of our company is our people. The soul of our company is our customers. The core of our company is our engineering.

Today, many industries require permanent identification marks on a variety of products. Fiber lasers are rapidly becoming a popular choice to meet this demand because of their exceptionally long operational life, lack of required maintenance and alignment, and relatively low cost.

The FiberMark Laser is the world's first flying-optic design incorporating a fiber laser source. Operating at a wavelength of 1062 nanometers, the FiberMark Laser etches directly into metal and marks a wide variety of plastics with an incredibly simple interface that allows you to print to the laser from almost any Windows®-based software, including AutoCAD, BarTender, CorelDRAW, and Illustrator.

What is a Fiber Laser Source?

The FiberMark's fiber laser source generates a laser beam by pumping intense diode light into the ends of fiber optic cables that have been doped with ytterbium. The energy from the diode light is absorbed by the ytterbium in the fiber optic cables and the energy is released in the form of photons that travel down the optic cables, creating the laser beam.

With a wavelength of 1062 nm, the laser is ideal for etching directly into metal, as well as creating polished and annealed marks. It also reacts with other materials, including a variety of engineered plastics and ceramics.



Proud to be Made in the USA

We are proud to say that all of Epilog's laser systems are 100% designed, engineered and manufactured in the USA at our headquarters in Golden, CO.

At a time when fewer products than ever before are manufactured in the USA, Epilog Laser is proud to build the industry's leading laser systems in the United States.

Etch and Mark a Wide Variety of Materials



Compatible Materials

- | | |
|---|---|
| 17-4 PH stainless steel | Magnesium |
| 303 stainless | Makrolon |
| 4043 steel | Metal-plated ceramics |
| 6061 aluminum | Molybdenum |
| ABS (black/white) | Nickel-plated 1215 mild steel |
| Aluminum, 6061 | Nickel-plated brass |
| Aluminum, yellow chromate | Nickel-plated gold |
| Bayer 2807 Makrolon polycarbonate | Nickel-plated Kovar |
| Bayers bayblend FR110 | Nickel-plated steel |
| Black/white ABS | Nylon |
| Black/white polycarbonate | PEEK, white |
| Brass | Polybutylene Terephthalate |
| Brushed aluminum | Polycarbonate, (black/white) |
| Carbon fiber | Polycarbonate resin 121-R |
| Carbon nanotube | Polycarbonate, Bayer 2807 |
| Ceramics | Polysulfone |
| Ceramics, metal-plated | Rynite PET |
| Clear coat anodized aluminum | Santoprene |
| Cobalt chrome steel | Silicon carbide |
| Colored Delrin (black/brown) | Silicon steel |
| Compacted powder iron with iron-phosphate coating | Silicon wafers |
| Copper | Stainless steel 303 |
| DAP- Diallyl Phthalate | Stainless steel 17-4 PH |
| Delrin, colored (black/brown) | Steel 4043 |
| GE Plastics polycarbonate resin 121-R | Steel, machine tool |
| Glass filled PEEK | Various inconel metals (nickel-chromium super alloys) |
| Glass filled Teflon | White PEEK |
| Hard coat anodized aluminum | Yellow chromate aluminum |
| Inconel metals (various) | Zinc plated mild steel |
| Machine tool steel | And many more! |



The FiberMark 24

The original FiberMark features a large engraving area and flying-optic motion control system.

- 24" x 12" (610 x 305 mm) engraving area.
- Drop-down front door for inserting large parts or a tray of tools.
- Ability to create annealed, polished and etched marks.



The FiberMark Fusion 32

Larger work area and more features make this laser a great industrial choice for those needing more space and increased throughput.

- 32" x 20" (812 x 508 mm) work area.
- Advanced vector marking capabilities.
- Higher marking speeds across the entire table.
- Table accommodates objects up to 11.25" (285 mm) in height.

Solutions for Your Business Needs

When we first launched the FiberMark in 2008, we were proud to introduce the world's first flying-optic design incorporating a fiber laser source. Operating at a wavelength of 1062 nm, the FiberMark Laser etches directly into metal and marks a wide variety of plastics and ceramics.

If you're looking for a laser system that can engrave an entire batch of parts at one time, but also has the ability to customize specialized parts in seconds, then the FiberMark may be the choice for you. It solves most common marking problems many companies face.

1) No Dedicated Operator

By designing a system that allows you to engrave over a large work area, you can engrave more parts at one time. With the FiberMark, there is no need for a dedicated operator to load parts one at a time. Load a tray of parts, place it in the machine and start the job - it's that simple.

2) Easier Software Integration

Specialized, proprietary software for laser systems creates the need for expensive training and re-training as staff turns over. The FiberMark works through a Windows® print driver, allowing you to print to the laser directly from AutoCAD, BarTender, Illustrator, CorelDRAW, and more.

Features and Benefits

	FiberMark 24	FiberMark Fusion
Made-in-the-USA Quality: 100% designed, engineered and built in Golden, CO.	x	x
Laser Dashboard™: Print directly to the laser from non-proprietary software.	x	x
Red Dot Pointer: Provides a visible laser beam to help position your projects.	x	x
High-Speed Servo Motors: Featured on both the x- and y-axis, the most robust motors available.	x	x
Moveable Home Position: Easily engrave oddly-shaped parts by setting a new home position.	x	x
LED Lighting: Bright LED lighting inside the machine.	x	x
Vacuum Hold-Down Table: Holds thin sheet stock flat to the surface of the table.	x	x
Networking Choices: USB and Ethernet connections, or connect wirelessly with a router.	x	x
Lenses Rated to 500 Watts: Highest-quality lenses provide long life and higher resolutions.	x	x
Raster/Vector Color Mapping: Change your speed and power by using color settings.	x	x
Easy-Access Drop-Down Door: Front-access door for the laser system.	x	x
Compatibility with Rotary Attachment: Engrave cylindrical objects.	x	x
Linear Encoders: Synchronizes the firing of the laser at increments of .02 mm.	x	
Rotary Encoders: Extremely accurate at 16,000 counts per revolution.		x
Strong Steel Chassis: Greater rigidity for more precise laser marking.		x
Oversized Top Door: Oversized door for better viewing of the engraving area.		x
Self-Lubricating Bearings: Decrease maintenance with self-lubrication of the bearings.		x
Removable Exhaust Plenum: Removable exhaust allows for easier maintenance of the system.		x
Joystick Controls: Move the laser head and run the laser directly from the control panel.		x
Epilog Control Center: Job management software including job time estimator/recorder.		x

3) Ability to Create Custom Marks

We've designed the FiberMark Series to allow you to set up and start engraving a custom design in just minutes. Since the FiberMark laser operates like a paper printer, you can quickly set up custom engraving jobs for multiple pieces. Need to etch a different logo? It's as easy as importing the image and printing it to the laser.

4) Etching Large Parts and Tools

If you face a requirement to mark larger parts and tools, the FiberMark Laser can meet those needs as well. Place a large piece up to 32" x 20" x 11.25" (812 x 508 x 285 mm) on the machine's motorized table to etch your logo or barcode wherever it is needed.

5) Easier Positioning of Marks

For oddly-shaped items with unique designs, we've stocked the FiberMark Series with easy positioning features, including Center/Center engraving and a Moveable Home Position. You can easily select your own reference point at any position on the table.

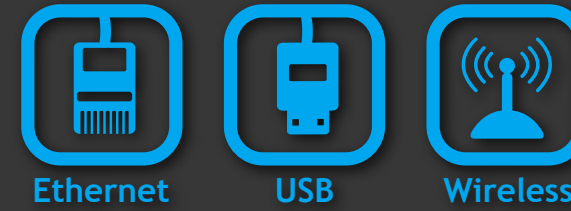
6) Highest Quality Design and Service

Since 1988, Epilog Laser has been manufacturing superior laser equipment in our Golden, CO headquarters. We're proud to have built our business on the reliability and quality of our laser systems, as well as the outstanding customer service we provide.



Engraving Over a Large Table Size

The unique flying-optic beam delivery system of the FiberMark Series provides a larger work area than traditional metal marking systems. It allows for high-speed parts marking over a large work area and makes parts indexing simple and predictable based on X/Y zero positioning.

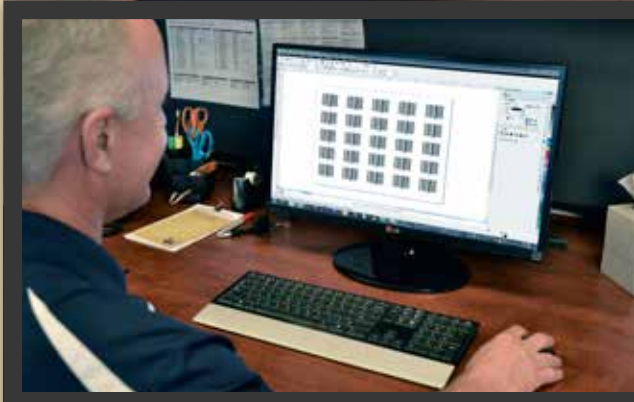


Network Across Your Office

You can connect your computer to the laser in a variety of ways, including an Ethernet, USB or wireless connection. Connecting multiple computers may also be accomplished via Ethernet or wireless router so you can run the system from any work station in your office or shop.

No Proprietary Software

The FiberMark's unique open-architecture software design allows you to print to the laser directly from most software packages you already use, including AutoCAD, BarTender, Illustrator, and more. This software flexibility eliminates the need to have specially-trained operators dedicated to a single proprietary software platform. Simply print your file from Epilog's print driver to start engraving.



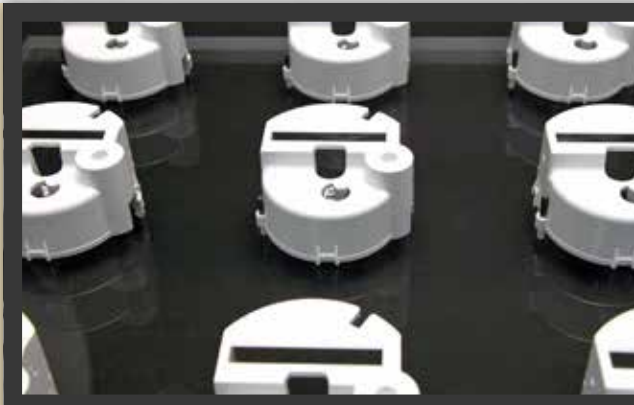
Create Multiple Marks

Do you need to achieve a mirrored look through etching? Or a polished or annealed effect? With the FiberMark you can create each of these marks simply by adjusting the speed, power, focus, and frequency settings within the print driver. We've developed settings that provide a wide variety of marks on different metals based on the look you need.



High-Volume, Multi-Piece Parts Marking

Parts placement in the FiberMark can be easily accomplished either by placing a part or tray of parts through the top window or through the hinged, front-access door. Both of these safety-interlocked doors provide fast and efficient parts placement and removal.



Job Management Software

Included with the FiberMark Fusion, the Epilog Control Center (ECC) offers a host of features that will help you minimize job setup time and maximize all of the other great features in the Fusion Laser Series. Not only can you access a job-time estimator and job-time recorder, but you can also move the lens carriage in real time and send jobs to the laser directly from the ECC.



Marking without Affecting Part Integrity

The non-contact laser marking of the FiberMark provides high-contrast marks without touching the surface of the component. Since only the laser beam is in contact with the part, there are no bits or tools that will wear down or touch the material.



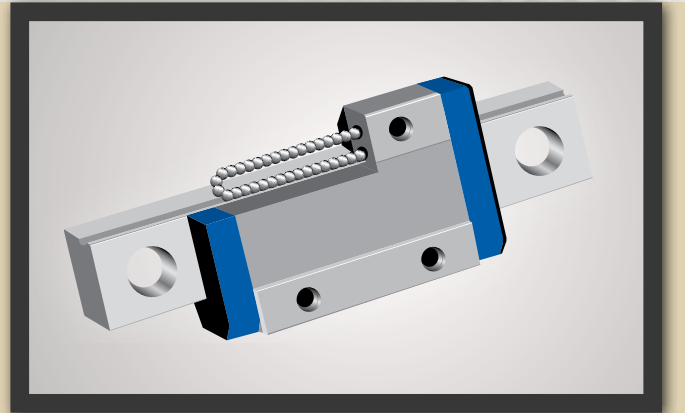
Quick Job Positioning

If you're marking an irregularly-shaped part, Epilog's positioning features make locating your barcodes and images on your piece quick and easy. Moveable Home Position and advanced positioning features allow you to set a new home position in seconds. You can also utilize Epilog's Center-Center engraving feature by setting the center point of your engraving area as your home position.



Long-Lasting, Stainless Steel Bearings

Epilog's bearings provide the accuracy, repeatability and precision that demanding laser applications require. Built with at least 64 stainless steel bearings in each slider unit, our long-lasting bearings can operate at the highest speeds, day in and day out without worry about failure, replacement, or the inevitable wobble that less robust bearing systems experience.



Servo Motors

The ability of the motor to move smoothly at high speeds is a key component to the motion system. Closed-loop, DC servo and brushless DC servo motors (FiberMark Fusion only) are known for their incredibly fast acceleration and deceleration speeds, as well as their ability to operate without the cogging seen in less accurate motors.



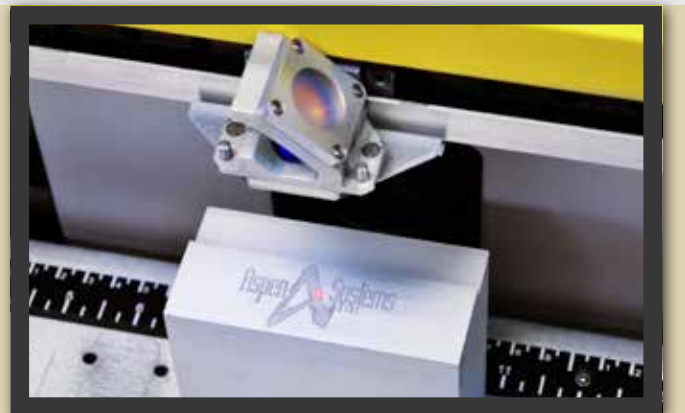
Desiccant Air Compressor

The FiberMark's Air Compressor is included with the FiberMark 24 system to work with the Air Assist feature. This allows for a direct and constant stream of airflow across your marking surface, removing heat and combustible gases from the work area. This high-quality air compressor feeds 30 psi of air through the Air Assist structure and in-line desiccant (air drying agent), keeping the x-axis and bearing rail free of debris.



Red Dot Pointer

The Red Dot Pointer provides a visible red beam that is extremely helpful in providing a visible means of determining the marking location on oddly-shaped items. Use the Red Dot Pointer to preview the marking or cutting position on a project. If marking an irregularly-shaped item, like a knife handle, you can draw a box around the text or image you are marking, print it to the laser, and run it with the red dot pointer on to see if your artwork is correctly placed.



Why Upgrade to the FiberMark Fusion?

Upgrade to the FiberMark Fusion to see the best Epilog has to offer. The FiberMark Fusion features a larger work surface - a 122% increase in engraving area - allowing you to engrave larger parts and more pieces at one time.

Features Unique to the FiberMark Fusion:

- Joystick control
- Superior chassis strength
- High-end industrial brushless DC servo motors
- Job management software - Epilog Control Center
- Advanced vector marking capabilities
- Self-lubricating bearings
- Accommodates objects up to 11.25" (285 mm) in height

FiberMark & FiberMark Fusion Accessories

Rotary Attachments

Because not every cylindrical object is the same, Epilog offers two different styles of Rotary Attachments for the FiberMark system. The Standard Style Rotary is the easiest to set up and operate. It's a great general-purpose attachment that works well with simple cylindrical shapes. For more demanding applications where it is desirable to mechanically clamp a cylinder or oddly-shaped, non-cylindrical object in place, we also offer a 3-Jaw Chuck Style Rotary Attachment. This attachment provides indexing capabilities, a high level of accuracy and more versatility for holding complex cylindrical and oddly-shaped objects.



Optional Lenses for More Etching Versatility

Epilog's FiberMark system comes with a standard 3" (FiberMark 24) or 5" (FiberMark Fusion) focus lens. These will suffice for most metal, plastic and ceramic marking applications, however, users will find some applications require a specialized lens. Epilog also offers 1.5" and 5" lenses for the FiberMark 24 system and 3" and 8" on the FiberMark Fusion to help tackle more complex applications on different kinds of parts.

Epilog Laser CO2 Laser Systems



A Different Wavelength for the Most Versatile Material Processing

If you're looking for a laser that can engrave and cut a wider variety of materials, our CO2 laser line may be the right choice for your application. The decision to select a fiber laser or a CO2 laser will be determined primarily by what materials you need to mark. While a fiber laser will mark bare metals, ceramics and engineered plastics, a CO2 laser system can engrave on a wider variety of materials, including wood, acrylic, rubber, plastic, and more.



A Wide Product Line of CO2 Laser Systems

From our desktop-sized Epilog Zing with a 16" x 12" (406 x 305 mm) engraving table, to our top-of-the-line Fusion 40 with a large 40" x 28" (1016 x 711 mm) work area, we have a laser system that can meet your needs. Each of our lasers features our industry-leading engraving quality, the fastest engraving speeds at the highest resolutions and the versatility to engrave and cut a wide variety of materials.

Check out our systems for applications ranging from signage to woodworking to electronics engraving, and more. CO2 lasers are an economical way to expand your business with a laser.



	Engrave	Cut
Wood	x	x
Acrylic	x	x
Glass	x	
Coated metals	x	
Ceramics	x	
Delrin	x	x
Cloth	x	x
Leather	x	x
Marble	x	
Matboard	x	x
Melamine	x	x
Paper	x	x
Mylar	x	x
Pressboard	x	x
Rubber	x	x
Wood veneer	x	x
Fiberglass	x	x
Painted metals	x	
Tile	x	
Plastic	x	x
Cork	x	x
Corian	x	x
Anodized aluminum	x	
Twill	x	x
Stainless steel	*	
Brass	*	
Titanium	*	
Bare metal	*	

* CO2 lasers will mark bare metals when coated with a metal marking solution. For more information, call +1 303-277-1188.



Most Detailed Engraving

Only Epilog's laser systems can engrave the highest resolutions at the fastest speeds. The depth, darkness, speed, and precision of engraving are unmatched.



High-Quality Parts

Epilog only utilizes the highest-quality parts on every system we manufacture. Industrial belts, bearings, and motors are the keys to long-lasting systems that withstand the most rigorous use.



Made-in-the-USA Quality

Like our FiberMark series, all of our CO2 laser systems are proudly manufactured at our headquarters in Golden, CO. We design, engineer and manufacture every laser system we sell.



Receive a CO2 Laser Brochure & Samples

If you would like to see a full catalog on our CO2 laser systems along with engraved samples, visit:

www.epiloglaser.com/co2-lasers

FiberMark Material Testing

Material Testing in our Applications Lab

Do you have a material you would like to test with our lasers? Our Applications Lab is available to help determine if an Epilog Laser is the right tool for your new or existing application. Our team of specialists will provide:

Applications Analysis

Is a CO2 or ytterbium fiber laser system the right tool for your application? What are the system requirements? How can an Epilog Laser meet or exceed your expectations?

Product and Material Testing

Our Applications Lab will process and return your material within a few days of testing them.

Complete Privacy

We recognize that many of your materials may be proprietary. We can promise you complete privacy about the materials we test for you and the processes involved.

Applications Report

Upon returning your processed samples, we also provide a detailed report that is tailored to your specific questions and application. Additionally, we'll make a recommendation on which system is right for you.

Call our Applications Lab today at +1 303-277-1188 or email applications@epiloglaser.com to set up your material test.



Set Up a Demonstration

If you're ready to take a hands-on look at the laser, we have distributors located worldwide who can schedule a demonstration. You'll be able to test your graphics and materials and see how the laser can best meet your needs. Call your distributor, or Epilog Laser directly at +1 303-277-1188 and we'll direct you to the distributor nearest you.

FiberMark Technical Specs



	Epilog FiberMark 24	Epilog FiberMark Fusion 32
Maximum Engraving Area	24" x 12" (610 x 305 mm)	32" x 20" (812 x 508 mm)
Max Material Thickness	5.0" (127 mm)	11.25" (285 mm)
Laser Source	Solid state pulsed ytterbium (Yb) fiber laser. Air cooled, includes collimator.	
Laser Tube Wattages	10, 20, 30, or 50 watts	
Wavelength	1062 nm	
Mode of Operation	Pulsed 20-100kHz	
Beam Quality	M ² < 1.1	
Focal Length	3" (76.2 mm)	5" (127 mm)
Standard Features	Relocatable home position, variable focus control, work table of 0.5" (12.7 mm) tool plate with integrated vacuum hold-down capability, internal LED lighting, front and top access doors.	Relocatable home position, variable focus control, work table of 0.5" (12.7 mm) tool plate with integrated vacuum hold-down capability, internal LED lighting, front and top access doors, removable exhaust plenum, joystick controls, job management software.
Intelligent Memory Buffer	Store unlimited files up to 64 MB. Rolling buffer allows files of any size to be engraved.	
Operating Modes	Optimized Raster, Vector and Combined mode.	
Motion Control System	Closed-loop DC servo motors	Closed-loop, brushless DC servo motors
X-Axis Bearings	Shielded roller bearing assembly on a ceramic-coated aluminum guide rail.	Shielded, self-lubricating roller bearing assembly on a ceramic-coated aluminum guide rail.
Belts	Advanced B-style Kevlar belts.	Advanced B-style Kevlar belts (x-axis) and steel cord belts (y-axis).
Resolution	User-controlled from 75 to 1200 dpi.	
Speed and Power Control (engraving depth)	Color mapping links Speed, Power, Frequency, Focus, and Raster/Vector mode settings to any RGB color.	
Print Interface	10Base-T Ethernet or USB connection. Compatible with Windows XP/Vista/7/8.	
Size (W x D x H)	34.5" x 24.5" x 16" (W x D x H) (876 x 622 x 406 mm)	52.5" x 33.5" x 40.75" (W x D x H) (1334 x 851 x 1035 mm)
Weight	120 lbs. (55 kg) without stand	500 lbs. (227 kg)
Electrical Requirements	Auto-switching power supply accommodates 110 to 240 volts, 50 or 60 Hz, single phase, 15 amp AC.	
Ventilation System	400 CFM (680 m ³ /hr) external exhaust to the outside or internal filtration unit is required. There is one output port, 4" (102 mm) in diameter.	650 CFM (1104 m ³ /hr) external exhaust to the outside or internal filtration unit is required. There are two output ports, 4" (102 mm) in diameter.
Laser System Classification	Class 2 Laser Product - 1 mW CW MAXIMUM 600-700 nm	

Technical specifications and product configurations subject to change without notice.

For system pricing information and to set up your personal demonstration, call your local distributor. To find your distributor, visit www.epiloglaser.com/distributors.htm



Epilog Laser

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Rev # 1013A



LASER RADIATION
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT
1 mW CW MAXIMUM 600-700 nm