laser marking systems
class 1 enclosures
RMI Laser
Focused Solutions

Dedicated laser marking expertise with unmatched selection and support.

Since 1998 RMI Laser has been focused solely on the design and manufacture of diode-pumped, solid-state (DPSS) Nd: YVO4, Nd: YAG, and Fiber Laser Marking Systems in the 1064nm and 532nm wavelengths. We do not focus on any other type of laser systems, only on lasers for marking and this direct focus has developed into a vast series of lasers and ranges for industrial and commercial marking applications.

Of course, no laser marking system is complete without the necessary accessories to adapt to the work environment in which it will be placed. We offer a variety of standard OEM, Class I, and Class IV configurations designed for the application of our customers.
Stand-Alone Safe

RMI Laser Class 1 Safety Enclosures are a self-contained laser marking solution. Their minimalist footprint allows them to fit into almost any production environment.

Whether you put them on one of our mobile carts or create your own work area for it, these enclosures are a great way to improve the ROI of your laser system.

Placing your laser in a safety enclosure is the safest mode of laser operation. It ensures operator, bystander, investment, and product protection.

Some of our customers even deploy their systems in customer-facing locations. It's a great way to advertise the precision and technological advancement of your company.

Why choose a Class I Enclosure?

Class 1 Enclosures are the most common accessory sold with laser marking systems. They offer users the ability to operate the laser in a high traffic area without any concern for any ocular hazard created by the laser's radiation. To reach a class 1 rating, the enclosure must be completely “light-tight” and come complete with safety interlocks so the laser cannot fire when the door is opened.

Depending on your application, RMI Laser offers a variety of standard enclosures that range from a Programmable Z-Axis to a simple sliding door for one in one out part loading. If our standard enclosures do not fit your needs, RMI Laser will work directly with you to customize an enclosure to your marking process.

Safe

Setup is simple and allows you to deploy your laser marker in any area of your production facility without specialized infrastructure.

Our safety enclosures only require a simple 110 Watt power connection. They are also very efficient with their space consumption, so finding just the right spot in your production process is typically very easy.

Plug and Play

Eliminate the need for costly and easy to bypass safety infrastructure. As well as protect your laser system investment for the future.

When you weigh the potential cost of facility upgrades, worker injury, and specialized training, a safety enclosure wins every time. Let us show you how one can make your marking system installation easier and more effective.

Cost Reducing

Eliminate the need for costly and easy to bypass safety infrastructure. As well as protect your laser system investment for the future.

When you weigh the potential cost of facility upgrades, worker injury, and specialized training, a safety enclosure wins every time. Let us show you how one can make your marking system installation easier and more effective.
Z-Axis Enclosure

Efficient
Easy to Operate

The Programmable Z-Axis enclosure provides users an easy focusing option as all they have to do is enter the actual part height into our software and the laser will automatically move to the correct focal distance based on that part height. If the part has two sections at various heights, or there are multiple parts at varying heights that need marking, each marking element can be programmed with different Z-Axis positions and the laser head will move the correct focal point for each and mark automatically.

Complete with a vertical door and T-Slot Baseplate for fixturing, this enclosure is ideal for those with a variety of part geometries and applications.

Rotary Table Enclosure

Fast
Continual Workflow

The Rotary Table Enclosure is the ideal solution for continual batch marking applications. The rotary table allows users to be loading and unloading parts as the laser is marking another batch making it a continual marking process.

After each batch is done marking, a quick spin of the table allows the user to unload and load the next batch of parts for marking. Complete with a built-in touch screen interface and adaptable rotary plate for fixturing, operators are easily able to switch to different marking batches with very minimal setup time. Two-handed anti-tie down switches ensure safety during operation.

Sliding Door Enclosure

Simple
Compact
Versatile

The sliding door enclosure is designed for one in and one out part marking operations or small batches. The door slides to the right out of the user’s way to provide access to the marking area or Z-Axis Lab Jack. An aiming diode is used to find the focus quickly and easily.

The Sliding Door Enclosure accommodates only the 100mm (2.5” square marking area) and 163mm (4.25” square marking area) lenses.
Custom Configurations and Integration

How can RMI Laser make your process better?

Our process specialists sit down and evaluate your needs with you in order to make sure your marking system is exactly what you have envisioned. After years of experience in a wide variety of industries we are also great at offering suggestions that can help you maximize your investment. We like to think of it as investing in your process as a whole and not simply adding a laser marker to what you already have.

Designed for applications requiring marking onto very hard metals, or for marking applications that require etching or engraving.

We here at RMI Laser understand that nobody knows your internal processes and needs better than you. This is why we offer completely customized laser integration that ranges from a simple modified workstation to a fully automated Class I production line. We start by determining which of our many laser series is needed for your application. Because we design the lasers themselves and are not simply a laser integrator we can provide better laser marking solutions. We then look at your production environment, existing processes, and goals to determine the system specifications.

RMI excels at working shoulder to shoulder with our customers to define their work flow needs. We have created a wealth of satisfied customers with our laser marking solutions over the years. All of this allows us to better optimize the solution for your needs while also ensuring that lead times and costs are not prohibitive.
Laser System Accessories

Indexing devices for circumferential marking applications such as rings, bearings, or valve fittings. Available in light-duty, heavy-duty, or pneumatic options.

Rotary Chuck

- Rotary Chuck HD
- Rotary Table
- Linear Actuators - X-Table
- Z-Axis Lab Jacks with 6” - 12”
- Breadboard
- F-Theta Lenses (254mm for 532nm and 1064nm, 330mm & 420mm for 1064nm only)

Z - Axis Stand

Z-Axis Linear Stands for a Class IV laser operation. Typically used for larger parts that will not fit into a Class I enclosure. Available with a manual hand crank or a programmable motor on the Z-Axis.

Making your laser marker an integral part of your workflow is a priority for us and we offer both standard accessories and custom equipment to adapt to your needs. Below are some of the standard components that we can fit to your current process. If you don’t see the perfect fit or would like a consultation we have engineers with experience designing solutions for small scale laser etching operations to fully automated high speed manufacturing facilities. No matter what your needs we can provide a solution to fit them perfectly.

All of our systems come equipped with 2 pairs of laser safety goggles, 100 or 163mm F-Theta Lens, and SW Pro Software.

- Class IV Mounting Stands
- Class IV Z-Axis Linear Stands
- Class 1 Safety Enclosures
- Barcode Scanners
- Rotary Chuck Lite

Ablation

The process of removing coatings like anodization, black oxide, plating, or insulation via irradiation from a laser beam.

Annealing

The process by which the surface of a material is heated to just below its melting point in order to create oxides on the surface.

Color Changing

This mark uses the energy of the laser beam to alter the molecular structure of the piece making a visible change in the color of the substrate without damaging the surface of the material.

Etching / Engraving

A process where material is actually removed or vaporized and recast to create depth in the material. The material is removed when the intense power density of the focused laser beam vaporizes the material.

Polishing

Sometimes called burnishing, is a process where the laser’s intensity is reduced to ensure the lightest marking intensity possible. This reduction in energy creates a polishing effect on the material being marked.
Laser Marking Systems
Class 1 Enclosures

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