Ruby Laser

RubyLaser cutting and welding laser system is designed for accurate and fast processing of a vast variety of metallic materials on a heavy-duty compact platform. It uses the latest fiber laser technologies for high quality results at much lower cost of ownership.

Compact footprint, flexibility, accuracy and ease of use make **RubyLaser** system a smart choice for many industries and from small to large scale operations.

RubyLaser uses maintenance-free; high efficiency fiber lasers with very low running cost, just a fraction of running cost of CO_2 or YAG lasers for comparable processes. In addition, fiber lasers have much longer life times compared to other types of lasers.

In addition, **RubyLaser** employs advanced beam delivery and conditioning systems that guarantee very fine edge quality for a wide variety of materials processed by the system.

RubyLaser features fully enclosed (Class 1) industrial laser cutting system designed with ultimate safety, accuracy, ease of operation, low maintenance and durability in mind.

RubyLaser working area can be customized to suit your process. The system can be fitted with a wide range of laser powers in order to offer the most economical solution.

RubyLaser can be configured for cutting or welding applications. It is a perfect tool that can process a wide variety of materials including different types of metals and alloys and many other materials. Please contact AAA for more information and arrange to cut or weld your samples.

Software

Most laser-cutting or welding system used in similar applications use G-Code programming, which is lengthy and time consuming. RubyLaser, by contrast, runs on user-friendly **FlexLaser** software platform that has been specifically developed for laser cutting and welding applications. G-Code can be offered as an option as well. The software has many unique features including:

- Easy programming;
- Fine cut quality due to advanced motion control and laser power modulation;
- Different motion and laser power attributes for each group of objects;
- Ability to change power and motion parameters on the fly;
- Direct importation of files generated by standard CAD and other graphic environments;
- Material library for ease of set up;
- Matrix capability;
- Standard integrated vision for registration, cutting path verification and accurate coordinate measurement;
- Automatic fiducial alignment for automatic registration; and
- Many diagnostic features.

Standard Vision Alignment

All **RubyLaser** machines come equipped with vision alignment as a standard feature. Using this feature, the operator does not need to use tooling holes or guide edges to align the product prior to cutting or welding. **RubyLaser** vision automatically finds the programmed fiducials (targets) on the work piece and automatically calculates X-Y and rotational offsets and cuts or weld the part with unparalleled precision. Most competitions offer vision as an expensive option.
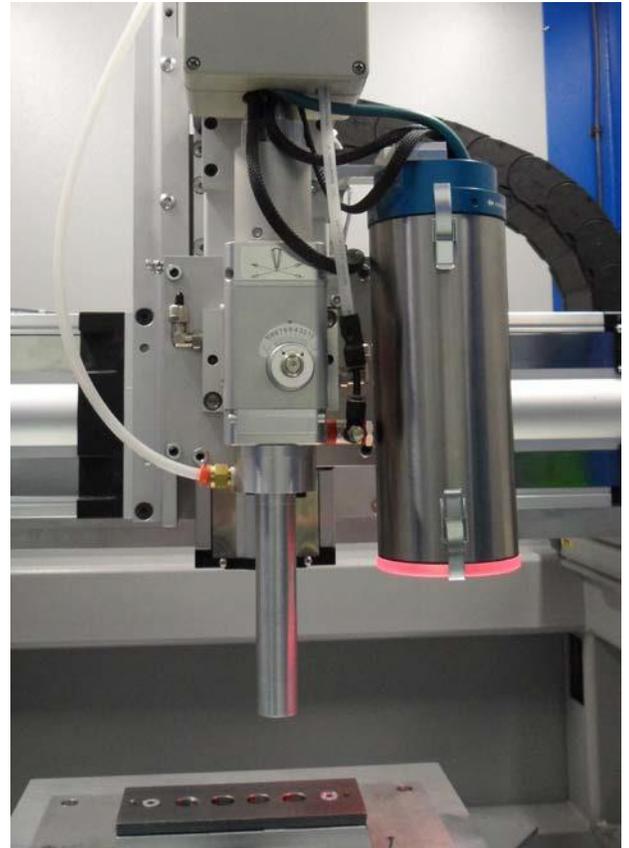
Z-axis-moving lens

This standard feature provides automatic, fast and accurate adaptation of the optics to guaranty sharp and clean cuts for parts having different build ups (thickness) or to avoid obstacles on the substrate being cut or welded.

Warranty and Support

RubyLaser, like all Automation Alternatives' equipment, carries a one-year limited warranty for parts and 90 days for labor. Extended warranty is also available. Technical support is available on-site, via telephone or email. In addition, fiber lasers carry the OEM warranty which in most cases will be a two-year warranty.

Automation Alternatives' technical support team can be resourced at a time that best fits the customers' schedules. North and South American customers can be serviced in both Eastern and the Pacific Time zones. Automation Alternatives carry a complete inventory of all parts for its equipment which could be shipped next day.

Specifications

General		
Cutting Area	To order	
Table type	To order	
Power and Cooling	Up to a few kilowatts	Air or water cooled, depending on power
Laser Type	No-maintenance fiber laser	Near IR, Green or UV
Power Control	Modulated in proportion to speed	No burning on corners
Focusing lens	To suit application	With assist / blanket gas system
Enclosure	Fully enclosed Class 1	
Safety	Dual redundancy	

Control and Positioning		
Axis Type	Hi-performance servo with high precision ball-screws and linear bearings	Optional Linear-motor axes
Number of axes	Three	Optional rotational axis
Repeatability	Better than 0.002" (0.05 mm)	
Interpolation	Linear and circular	
Measuring units	Standard / Metric	

Hardware and Software Systems		
PC	Industrial rack-mount	Complete with LCD monitor and pointing device
Operating System	Windows 7	
Hand-held	User friendly with full motion and laser control capabilities	
Specialty Software	FlexLaser C/W integrated vision	Optional G-code
Vision	Integral vision with programmable tri-color illuminator with automatic registration capability	