



GRIFFIN AUTOMATION, INC.

DESIGNERS AND BUILDERS OF AUTOMATION MACHINERY FOR INDUSTRY

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MULTI-AXIS LASER WORKSTATION

With over 25 years experience in designing and building industrial laser systems, Griffin Automation has been an early pioneer in this technology. Our laser systems are used in the automotive components, electronics, medical and communications fields, in both domestic and foreign applications. While early industrial laser systems were largely custom built for specific applications, today's market demands a more versatile basic standard package, with the ability to be easily retooled for a variety of products and processes. To answer this need, Griffin Automation has developed our basic laser processing workstation.

With an assortment of available options, our standard 2-axis laser workstation can readily be configured to satisfy your special laser processing needs such as welding, cutting, machining, heat treating, tube processing and powder coating applications.



STANDARD LASER WORKCELL
with Class 1 safety enclosure, which can be adapted to a variety of laser processing applications. Any manufacturer's laser (CO₂, ND YAG, direct diode, pumped diode) can be supplied, tailoring the system to your application.

The basic workstation incorporates a 2-axis (upgrade to 3 or 5 axis optional) CNC motion system with a 300 mm X 300 mm (500 X 600 optional) X-Y table. Standard with the system is a Class 1 laser safety enclosure with manual opening sliding door. All equipment is mounted on a rigid fabricated steel base to provide accuracy and long life.

At Griffin Automation, our expertise is with integrating the laser into a complete functional workstation that is ready to use and customized to fit your needs. This may include any combination of tooling, fixtures, part handling, or 5-axis rotary and tilt positioning options. Operation may range from a semi-automatic workstation, up to a fully automated system.

Our Applications Engineers have a wide variety of experience in laser processing and are available to analyze your laser processing requirements. In most cases we can provide sample part evaluation for your specific product.



In addition to laser processing, Griffin Automation also builds laser workstations for marking applications.



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MULTI-AXIS LASER WORKSTATION SPECIFICATIONS AND OPTIONAL EQUIPMENT

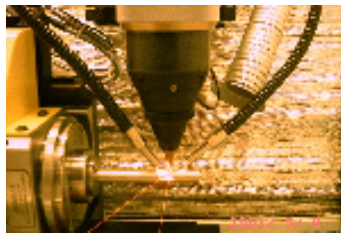
STANDARD 2-AXIS LASER WORKSTATION SPECIFICATIONS

- **Set-up for laser welding, cutting, hardening and machining processes.**
- **Heavy-duty fabricated steel base with 1-inch thick ground top.**
- Class 1 laser safety enclosure with manual operated access door and interlocked safety switches.
- Gas nozzles for welding.
- Documentation and manuals.
- Start-up at customer's site.
- **Adjustable leveling feet.**

STANDARD MOTION SYSTEM SPECIFICATIONS

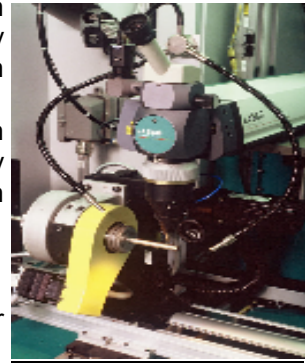
The basic mechanical drive system features the following:

- 2-axis CNC motion system with a 300 mm X 300 mm X-Y table manual Z-axis.
- Standard grade ground ball screws, 5mm lead.
- Linear square rail guide bearings with dust covers and air purge
- Linear motions are provided with IP30 rated stainless steel strip seals combined with aluminum covers. A low-pressure air purge is provided with the X and Y-axis.
- Over travel and home limit switches are standard. The CNC control also provides programmable software over travel limits.
- Brushless servomotors with MS connectors and resolvers for position and velocity feedback utilizing PWM Servo Drives.
- Orthogonality of assembly .002"
- Positioning Accuracy +/- 0.0008"/ft.
- Bi-directional Repeatability +/- 0.0002"
- Straightness and Flatness of Travel 0.001"/ft.
- Traverse Speed w/ Fiber-Optic Head; all axes 300 IPM
- Traverse Speed w/ Hard-Optic Head; "Z" axis 50 IPM



AVAILABLE OPTIONS

- Customer's choice of laser manufacturer and power level.
- 3-axis CNC motion system with a 500 mm X 600 mm X-Y table and a 500 mm Z-axis travel.
- 4-axis capability with addition of A-B- rotary table, servo spindle with manual tilt.
- 5-axis capability with addition of A-B-rotary table, servo spindle with Servo Tilt.
- Precision grade ground ball screws, 5 mm lead.
- 6" 10" or 12" Diameter Rotary Table
- Tube processing feeder option for up to 7.5" long single-feed increment. Feed accuracy is 0.005"
- High Resolution, direct mount Ring Encoder
- On-Site Factory Service and programming assistance
- 4 inch diameter three jaw chuck for mounting onto the spindle.
- 6 inch diameter faceplate for mounting onto the spindle.
- Precision "V" Block with Guide Rails, requires Faceplate Option.
- 12" x 12" x 4" or 14" x 14" x 4" Universal Cutting Box.
- Power pneumatic Operated Process Door for Class I Enclosure.
- Integrated Fume Exhaust Systems.
- Custom Paint.
- Storage shelf with doors in machine base.



Note: Additional options and features are available for the laser power unit depending on the laser manufacturer and model number.

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