

OMTech SH-G1490

OMTech 130W CO2 Laser Engraver User Manual

Model: SH-G1490

Brand: OMTech

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, setup, and maintenance of your OMTech 130W CO2 Laser Engraver, Model SH-G1490. This industrial-grade laser cutting and engraving machine is designed for precision work on various non-metallic materials.

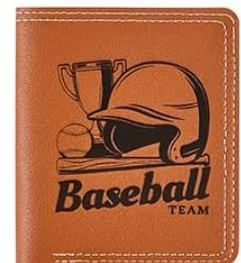


Image: The OMTech 130W CO2 Laser Engraver, featuring the main unit, an external water chiller, and examples of engraved materials such as wooden ornaments, coasters, and leather items.

TRUSTED BY SOME OF THE BEST

OMTech Laser is proud to work with some of the largest companies

UNITED STATES NAVY



Image: The OMTech 130W CO2 Laser Engraver positioned in a workshop environment, highlighting its robust design and integration with other equipment.

2. SETUP

Proper setup is crucial for the optimal performance and safety of your laser engraver. Follow these guidelines for initial installation and configuration.

2.1. Work Area and Machine Placement

The machine features a generous 35"x55" work area, supported by both honeycomb and aluminum blade beds. Ensure adequate space around the machine for operation and material handling. The three-way pass-through doors allow for processing larger and longer items, requiring clear access on all sides.



Image: A diagram illustrating the 35x55 inch work area, detailing the interchangeable honeycomb and aluminum blade beds for different material types and cutting needs.

2.2. Autofocus System

The pre-installed autofocus system simplifies the setup process by automatically finding the correct focal distance. This eliminates the need for manual adjustments, ensuring precise engraving and cutting results with minimal effort.

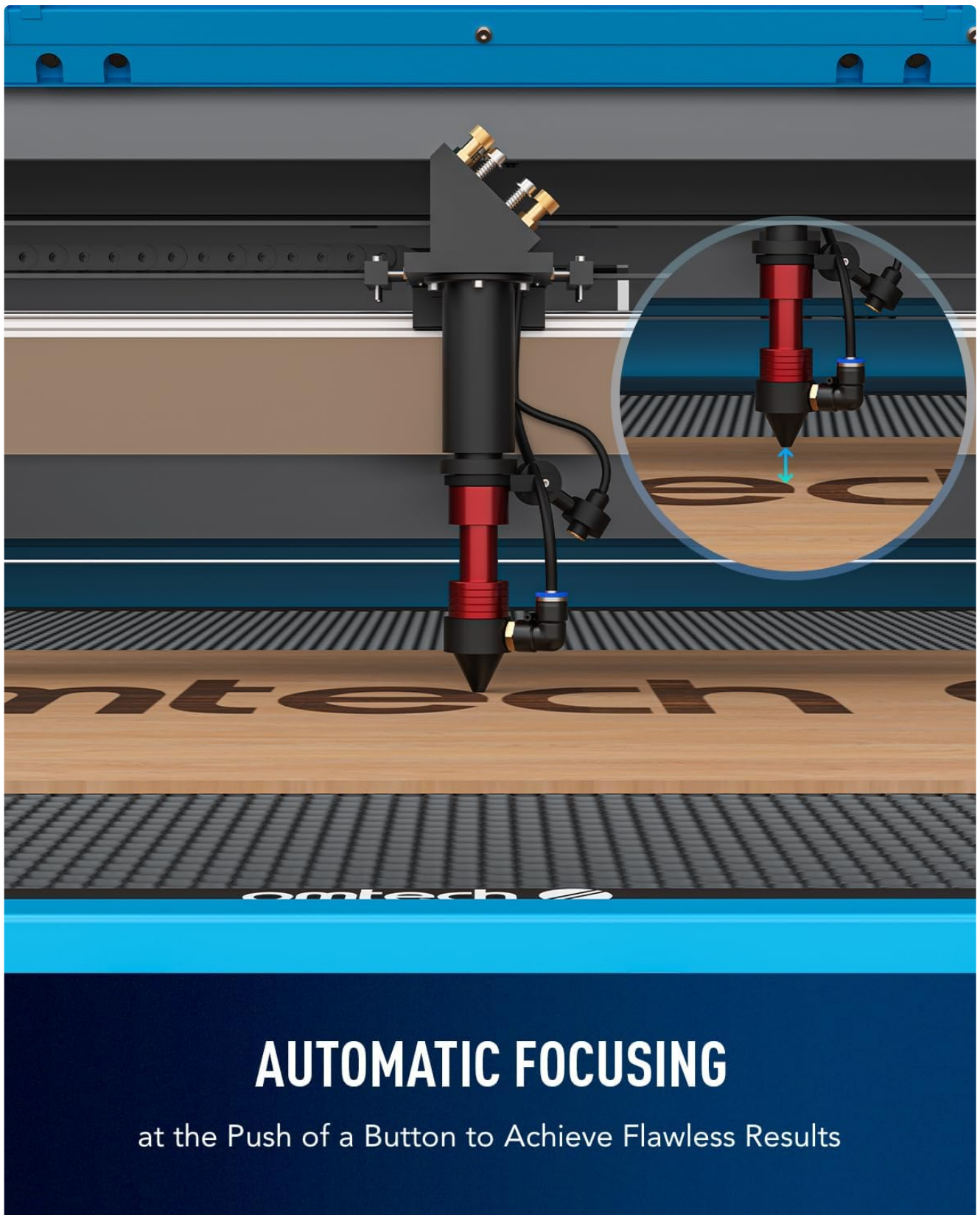


Image: A detailed view of the laser head demonstrating the automatic focusing mechanism, showing the sensor detecting the material surface to set the optimal focal point.

2.3. Water Chiller Connection

An industrial water chiller (CW-5200) is included to maintain optimal laser performance and extend the lifespan of the Yongli H6 tube. Connect the chiller according to the separate chiller manual to ensure proper cooling during operation.



WATER CHILLER INCLUDED

Keep Your Engraver Cool and Achieve
Consistent Optimal Laser Performance

Image: The CW-5200 industrial water chiller, designed to keep the laser engraver's tube cool for consistent and reliable performance.

2.4. Air Assist System

The built-in air assist system is essential for removing smoke and dust during laser operations. This protects the laser lenses and reflective mirrors from debris, ensuring clean cuts and engravings while enhancing safety.



Image: A visual representation of the automatic air assist function, showing a stream of air clearing smoke and debris from the engraving area to maintain clarity and protect components.

3. OPERATING INSTRUCTIONS

Your OMTech 130W CO2 Laser Engraver is capable of precise cutting and engraving on a variety of non-metallic materials. Understanding its capabilities will help you achieve optimal results.

3.1. Engraving and Cutting Capabilities

This machine can cut and engrave as deep as 0.4 inches on materials such as wood, glass, acrylic, and leather. It supports speeds up to 23.6 inches per second (600 mm/s), significantly boosting productivity for various projects.



DESIGN, ENGRAVE, & IMPRESS

with OMTech 130W CO₂ Laser Engraver

Image: The laser engraver actively working on a wooden board, demonstrating its ability to precisely engrave designs, such as the OMTech logo.

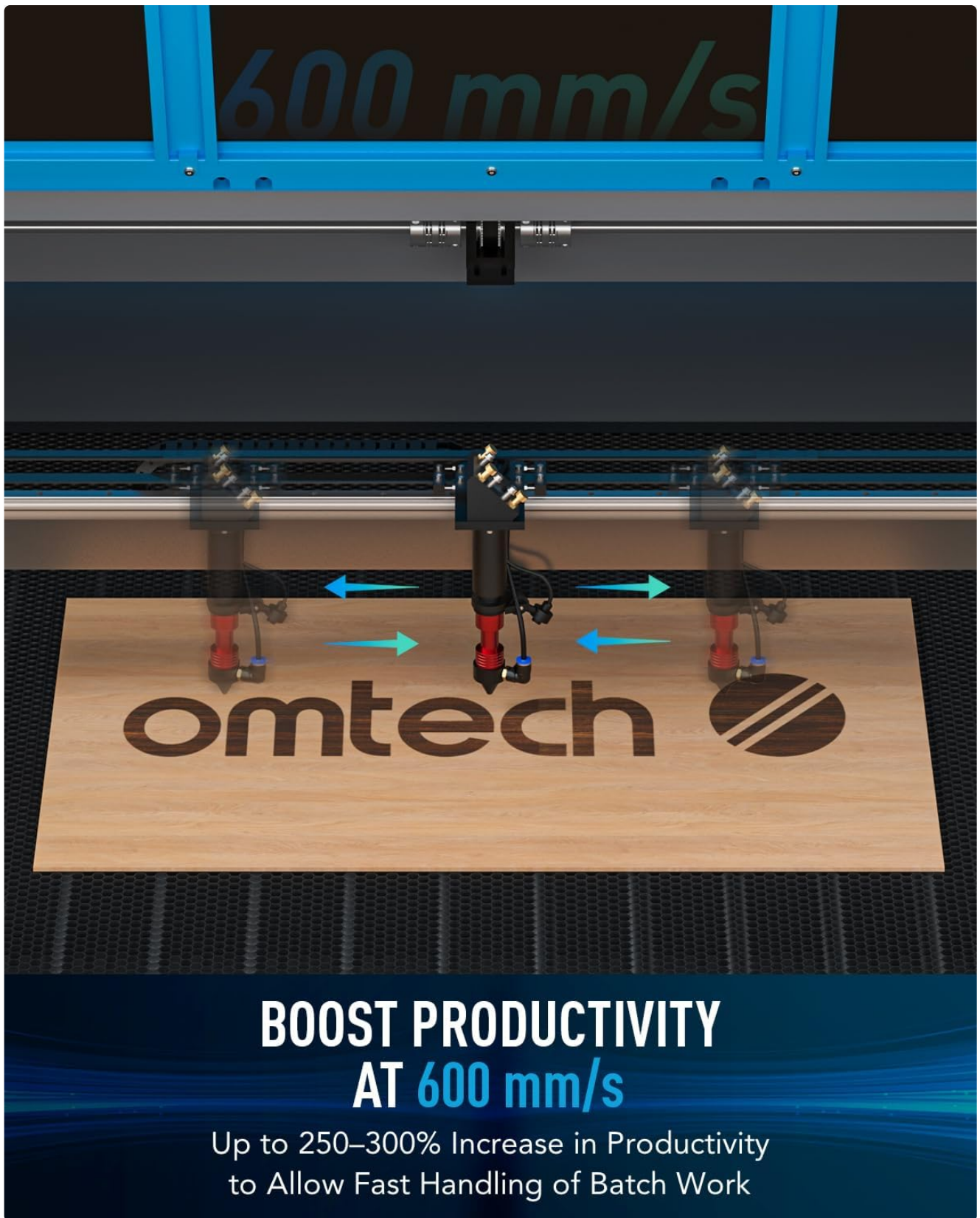


Image: An illustration highlighting the increased productivity of the laser engraver, capable of speeds up to 600 mm/s for efficient batch work.

3.2. Compatible Materials

The OMTech 130W CO2 Laser Engraver is suitable for engraving and cutting a wide range of non-metallic materials. Refer to the table below for common compatible materials:



Image: A comprehensive list of materials categorized by their suitability for either engraving or cutting with the OMTech laser system.

3.3. Connectivity Options

The laser engraver supports multiple data transmission methods for convenience and flexibility in your workflow:

- **USB Cable:** Direct connection to a computer.
- **Ethernet Cable:** Network connectivity for shared access.
- **USB Flash Drive:** For offline operation and file transfer.
- **Wi-Fi:** Wireless connectivity for enhanced flexibility.



Image: A visual representation of the various connectivity options available for the laser engraver, including Wi-Fi, USB, and Ethernet, allowing for flexible integration into different setups.

3.4. Official Product Video

Your browser does not support the video tag.

Video: An official video from OMTech Direct titled "Laser Guys from OMTech," showcasing the practical applications and benefits of OMTech laser engravers in a business setting. This video provides insights into the machine's capabilities and user experience.

4. MAINTENANCE

Regular maintenance ensures the longevity and consistent performance of your OMTech laser engraver.

4.1. Laser Tube Lifespan

The high-performance Yongli H6 tube is designed for up to 8,000 hours of usage. Its lifespan can be extended by consistently operating the machine at lower power settings when appropriate. Monitor the tube's performance and replace it as needed.

4.2. Lens and Mirror Cleaning

The built-in air assist helps keep lenses and mirrors clean, but periodic manual cleaning is recommended. Use appropriate cleaning solutions and lint-free cloths to prevent damage to optical components. Refer to the detailed cleaning instructions in the full product manual.

4.3. Water Chiller Maintenance

Ensure the water chiller is regularly checked for proper water levels and circulation. Clean the chiller's filter and condenser coils periodically to maintain efficient cooling. Use distilled water or a recommended coolant to prevent mineral buildup and corrosion.

5. TROUBLESHOOTING

This section provides general guidance for common issues. For detailed troubleshooting steps, please consult the comprehensive troubleshooting guide available on the OMTech support website.

5.1. Poor Engraving/Cutting Quality

- **Check Focus:** Ensure the autofocus system has correctly set the focal distance. Manual adjustment may be required for certain materials.
- **Clean Optics:** Dirty lenses or mirrors can significantly degrade laser performance. Clean them as described in the Maintenance section.
- **Power/Speed Settings:** Verify that the power and speed settings are appropriate for the material being processed. Incorrect settings can lead to incomplete cuts or faint engravings.
- **Material Consistency:** Inconsistent material thickness or composition can affect results.

5.2. Machine Not Responding

- **Power Supply:** Ensure the machine is properly connected to a power source and the power switch is on.
- **Emergency Stop:** Check if the emergency stop button is engaged. Disengage it by twisting or pulling.
- **Connectivity:** Verify USB, Ethernet, or Wi-Fi connections are secure and active.

5.3. Overheating Issues

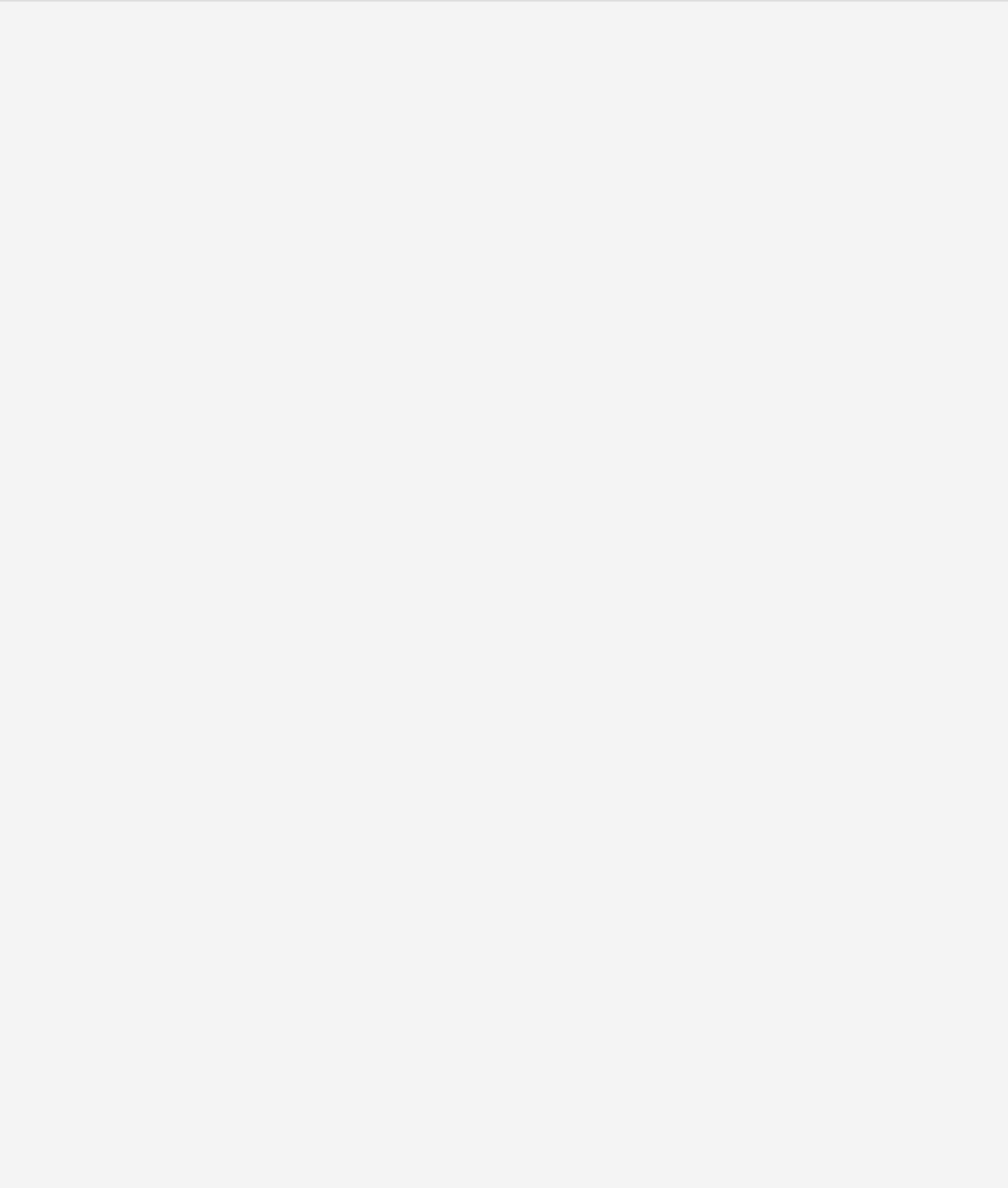
- **Water Chiller:** Confirm the water chiller is operating correctly, water levels are adequate, and there are no blockages in the water lines.
- **Ambient Temperature:** Ensure the operating environment is within the recommended temperature range to prevent overheating.

6. SPECIFICATIONS

Detailed technical specifications for the OMTech 130W CO2 Laser Engraver (Model SH-G1490).

Feature	Detail
Model Number	SH-G1490
Laser Class	Class 2
Output Power	0.827mW

Feature	Detail
Laser Tube Power	130W (Yongli H6 tube)
Max. Engraving Speed	600 mm/s (23.6 ips)
Work Area	35 x 55 inches
Product Dimensions	78.7 x 56.7 x 37.8 inches
Item Weight	679 pounds
Manufacturer	OMTech
Date First Available	August 24, 2023





Max. Engraving Speed
600 mm/s

Data Transmission
**USB Cable, Ethernet Cable,
USB Flash Drive, Offline**

Front/Back Pass Size
59.1×2 in.

Machine Dimensions
78.7×56.7×37.8 in.

Side Pass Size
38.2×0.8 in.

Machine Weight
679 lb.

Image: A visual summary of key specifications for the OMTech 130W CO2 Laser Engraver, including engraving speed, machine dimensions, and weight.

7. WARRANTY AND SUPPORT

OMTech is committed to providing quality products and reliable customer service.

7.1. Warranty Information

Your OMTech 130W CO2 Laser Engraver comes with a strong **2-year general warranty**. The laser tube and power


supply are covered by a **12-month warranty**. This warranty covers defects in materials and workmanship under normal use.

7.2. Customer Support


OMTech offers US-based customer service and technical support to assist you with any inquiries or issues. You can reach out to them via:

- **Phone:** +1 (949) 438-4949
- **Email for Customer Service:** SUPPORT@OMTECHLASER.COM
- **Email for Tech Support:** TECHSUPPORT@OMTLASER.COM


Support is available 7 days a week, 24 hours a day.




8+ Countries
Sales Coverage in



Over 100,000
trust OMTech's products and services




35,000+
Facebook Community Users







4,500+
Users Give 5-Star Reviews

Image: Information detailing OMTech's 7x24 hour after-sale support, including contact phone numbers and email addresses for customer service and technical assistance.

Related Documents - SH-G1490

	<p>Manual de Usuario: Grabador Láser CO2 Omtech SH-G1490 (130W)</p> <p>Guía completa de usuario para el grabador láser de CO2 Omtech SH-G1490 de 130W. Incluye instrucciones de seguridad, instalación, operación y mantenimiento para garantizar un uso seguro y eficiente.</p>
	<p>OMTech SH-H1309 Cabinet Laser Engraver User Manual</p> <p>This user manual provides comprehensive instructions for the installation, safe operation, maintenance, and troubleshooting of the OMTech SH-H1309 Cabinet Laser Engraver. It covers safety guidelines, component details, technical specifications, and operational procedures for commercial and industrial use.</p>

 <p>omtech SH-G570 100W CO₂ Cabinet Laser Engraver User Manual</p>	<p>OMTech SH-G570 100W CO2 Cabinet Laser Engraver User Manual</p> <p>Comprehensive user manual for the OMTech SH-G570 100W CO2 Cabinet Laser Engraver, covering safety, installation, operation, maintenance, and troubleshooting for personal and professional use.</p>
 <p>032B (40W) DESKTOP LASER ENGRAVER USER MANUAL</p>	<p>OMTech 032B (40W) Desktop Laser Engraver User Manual</p> <p>Comprehensive user manual for the OMTech 032B (40W) Desktop Laser Engraver, covering installation, safety, operation, maintenance, and troubleshooting. Learn to safely and effectively use your laser engraving machine.</p>
 <p>User Manual</p>	<p>OMTech 3020 Laser Engraver User Manual</p> <p>Comprehensive user manual for the OMTech 3020 laser engraver, covering installation, operation, maintenance, and troubleshooting for professional use. Includes detailed instructions and safety guidelines.</p>
 <p>omtech USB570a Cabinet Laser Engraver User Manual</p>	<p>Omtch USB570a Cabinet Laser Engraver User Manual - Installation, Operation & Safety Guide</p> <p>Comprehensive user manual for the Omtch USB570a Cabinet Laser Engraver, detailing installation, operation, safety guidelines, and maintenance for optimal performance and user safety.</p>