

## Woxcker L2 MAX

# Woxcker L2 MAX 10W Laser Cutter and Engraver Machine User Manual

Model: L2 MAX

## 1. IMPORTANT SAFETY INFORMATION

This section outlines critical safety precautions for operating the Woxcker L2 MAX Laser Cutter and Engraver Machine. Adherence to these guidelines is essential for safe operation and to prevent injury or damage.

- **Comprehensive Safety Design:** The machine features a fully enclosed desktop design with a lid and laser cover for eye protection.
- **Automatic Shut-off:** The machine is equipped with an auto-stop function that activates when the lid is opened, or if the machine tilts beyond 15 degrees.
- **Flame Sensor:** An integrated flame sensor provides an additional layer of safety by detecting and responding to potential fire hazards.
- **Emergency Stop:** An emergency stop button is readily accessible to immediately halt all operations.
- **Safety Lock:** A child safety lock mechanism prevents unauthorized use.
- **Enclosed Workspace:** The 360° enclosed design minimizes laser exposure, contains fumes and dust, reduces operational noise, and restricts access during operation.



Large Engraving Area	Key Point
✓ Can place entire materials or multiple pieces at once	<b>Working Range</b>
✓ One-time setup ensures accurate seamless engraving	<b>Engraving Precision</b>
✓ Engraves multiple items in one run, saving time	<b>Production Efficiency</b>
✓ Ideal for large-scale designs, artworks, and signage	<b>Design Flexibility</b>
✓ Flexible nesting layout reduces waste and cost	<b>Material Utilization</b>
✓ Compatible with rotary rollers, lifting platforms, and extensions	<b>Expandability</b>



VS



Small Engraving Area	Key Point
✗ Limited space, can only engrave small objects	<b>Working Range</b>
✗ Requires multiple repositioning easy to misalign	<b>Engraving Precision</b>
✗ Frequent material changes slow down workflow	<b>Production Efficiency</b>
✗ Restricted by space, limits creativity	<b>Design Flexibility</b>
✗ Inefficient layout, more material waste	<b>Material Utilization</b>
✗ Hard to add accessories or attachments	<b>Expandability</b>



Figure 1: The Woxcker L2 MAX is designed with Class 1 laser safety standards (IEC 60825-1) for safe operation.

## Rotary Engraving Your Creations

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Figure 2: The enclosed design ensures safe operation around children and pets.



### Air assist:

Effectively blows away smoke generated during engraving, reduces high-temperature buildup from high-power engraving, prevents dust accumulation on the laser module, and extends machine lifespan.



With air assist



Without air assist

**Note:** While the 10W/20W laser engraver enables faster and smoother engraving, due to its higher power, it is recommended to use an air assist (Sold separately)

Figure 3: The 15° tilt stop mechanism automatically shuts down the machine if it tips over.

## Honeycomb worktable

Prevents damage to your work surface from high-power cutting.

**Note:**

While the 10W/20W laser engraver enables faster and smoother engraving, due to its higher power, it is recommended to use a honeycomb worktable (Sold separately)

Get One Now



Figure 4: The machine stops working when the cover is opened, thanks to an intelligent sensing system.

## Heightening Brackets

Height up to  
**4.84in/12.3cm**

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Figure 5: Press the emergency stop button to immediately halt all machine operations.



## Effortless Laser Upgrades, Endless Creativity

Upgrade your laser module in minutes and unlock sharper, faster, and more detailed engravings. Modular design keeps your machine future-ready, letting you create with precision and freedom.

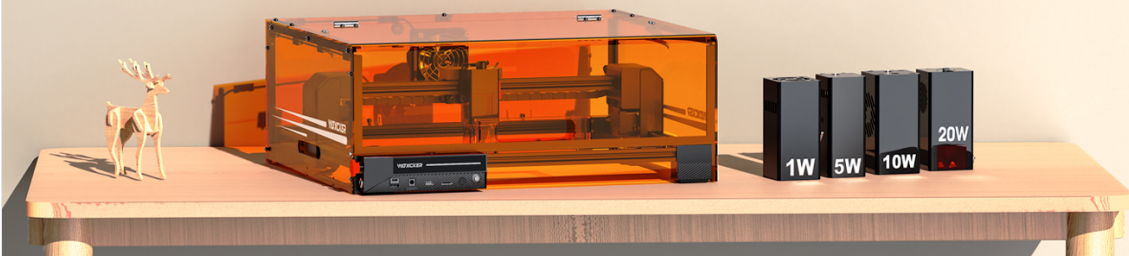


Figure 6: The key lock requires twisting to open, preventing misuse by children.

## 2. PRODUCT OVERVIEW AND FEATURES

The Woxcker L2 MAX is a versatile desktop laser cutter and engraver designed for high precision and efficiency. It offers a range of features for various crafting and professional applications.

- **Ultra-Precise Engraving:** Achieves 0.01mm high precision with an advanced compression laser, delivering sharp details on various materials.
- **High-Speed Operation:** Engraves at up to 20,000mm/min, significantly faster than many comparable machines.
- **Large Engraving Area:** Features a spacious 300 x 300 mm bed size, allowing for larger designs or multiple smaller items simultaneously.
- **Wide Material Compatibility:** Suitable for engraving and cutting wood, leather, acrylic, coated metal, plastic, glass, and even food.
- **Smart Compatibility:** Works with popular software like LightBurn, LaserGRBL, and CutLabX.
- **Multiple Connection Options:** Supports WiFi, USB, APP, and TF card for offline use.
- **Modular Design:** Beginner-friendly assembly with no belt adjustments required.
- **Efficient Smoke Exhaust System:** Equipped with a smoke exhaust fan to quickly remove smoke and reduce accumulation, improving the engraving experience.



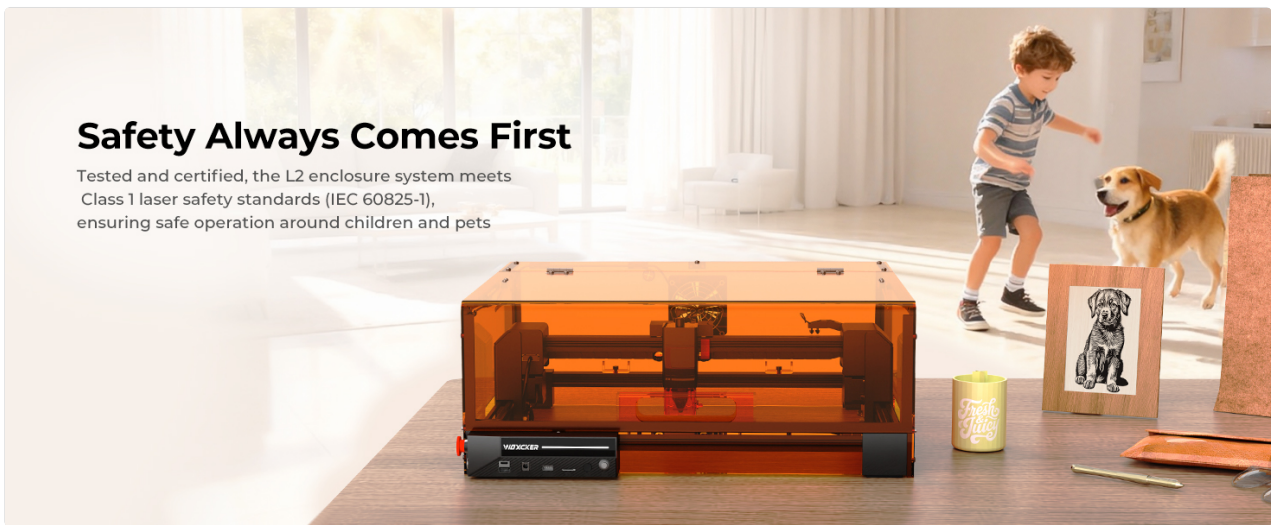
Figure 7: Key features of the Woxcker L2 MAX, including deep engraving, high-precision engraving, cutting, Class 1 safety, wide material compatibility, smoke exhaust fan, 300x300mm bed size, and compatible software/app.



Figure 8: Another view of the L2 MAX features, highlighting the large engraving area and expandable modules.



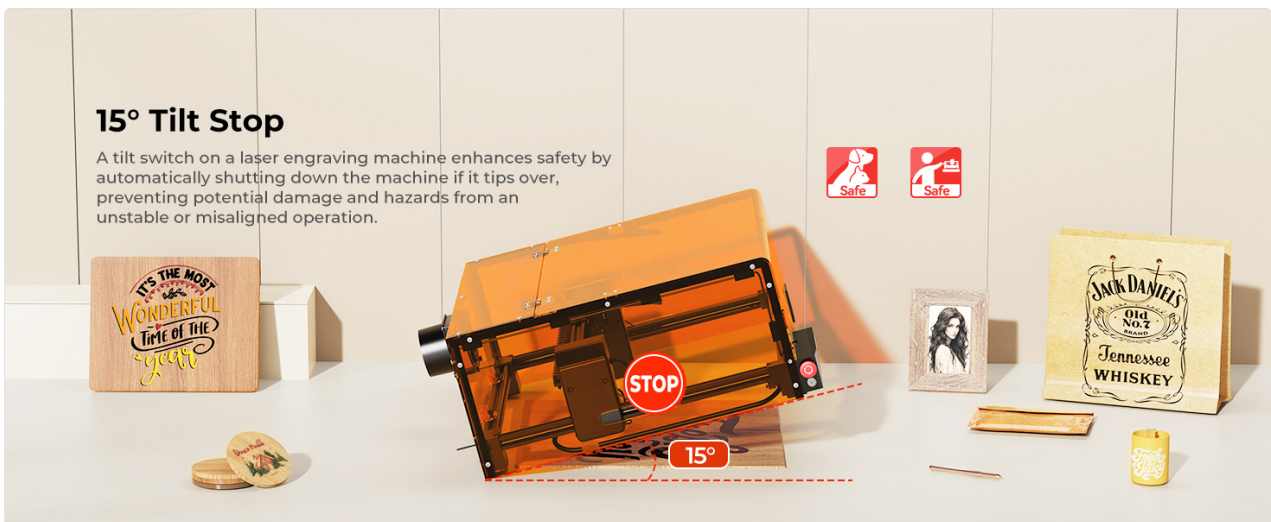
Figure 9: The 300x300mm engraving area provides more freedom and efficiency compared to smaller alternatives.



## Safety Always Comes First

Tested and certified, the L2 enclosure system meets Class 1 laser safety standards (IEC 60825-1), ensuring safe operation around children and pets

Figure 10: The efficient smoke exhaust system helps maintain a clean workspace and improves engraving quality.



## 15° Tilt Stop

A tilt switch on a laser engraving machine enhances safety by automatically shutting down the machine if it tips over, preventing potential damage and hazards from an unstable or misaligned operation.

Figure 11: Accurate laser engraving with a 0.08x0.08mm compressed laser spot for sharp details.

## Accurate Laser Engraving with Woxcker

With a 0.08 × 0.08 mm compressed laser spot, the L2 Max delivers sharp, detailed, and highly precise engraving results.

**0.08X0.08mm**

Compressed Laser Spot



Figure 12: The L2 MAX offers super-fast engraving at 20,000mm/min.

### 3. SETUP AND ASSEMBLY

The Woxcker L2 MAX features a modular design for easy assembly. Follow these steps to set up your machine.

#### 3.1 Unboxing

Carefully unpack all components from the box. Ensure all parts are present and undamaged before proceeding.



Figure 13: The Woxcker L2 MAX machine as it appears upon unboxing.

## 3.2 Initial Assembly

The machine comes largely pre-assembled. Follow the included quick start guide for final assembly steps, which typically involve attaching the enclosure panels and connecting the laser module.

## 4. OPERATING INSTRUCTIONS

This section provides general guidance on operating your Woxcker L2 MAX. Refer to the detailed software manuals for specific project creation and execution.

### 4.1 Software and Connectivity

The L2 MAX is compatible with various software and offers multiple connection methods.

- **Supported Software:** LightBurn, LaserGRBL, CutLabX.
- **Supported Operating Systems:** Windows 7+, macOS, Linux.

- **Connection Methods:** WiFi, USB, Mobile App, TF Card (for offline use).



Figure 14: The L2 MAX supports a wide range of software and operating systems for flexible operation.

## 4.2 Material Processing Capabilities

The L2 MAX can engrave and cut a variety of materials. The cutting depth varies based on laser power (5W, 10W, 20W) and material type.

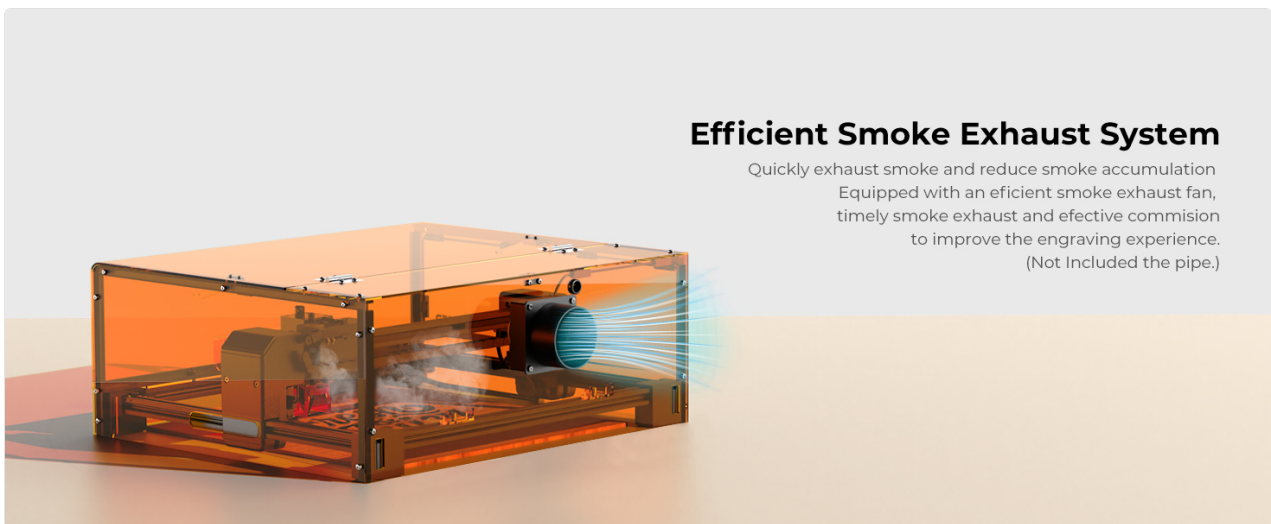


Figure 15: Material compatibility and cutting capabilities for different laser modules.

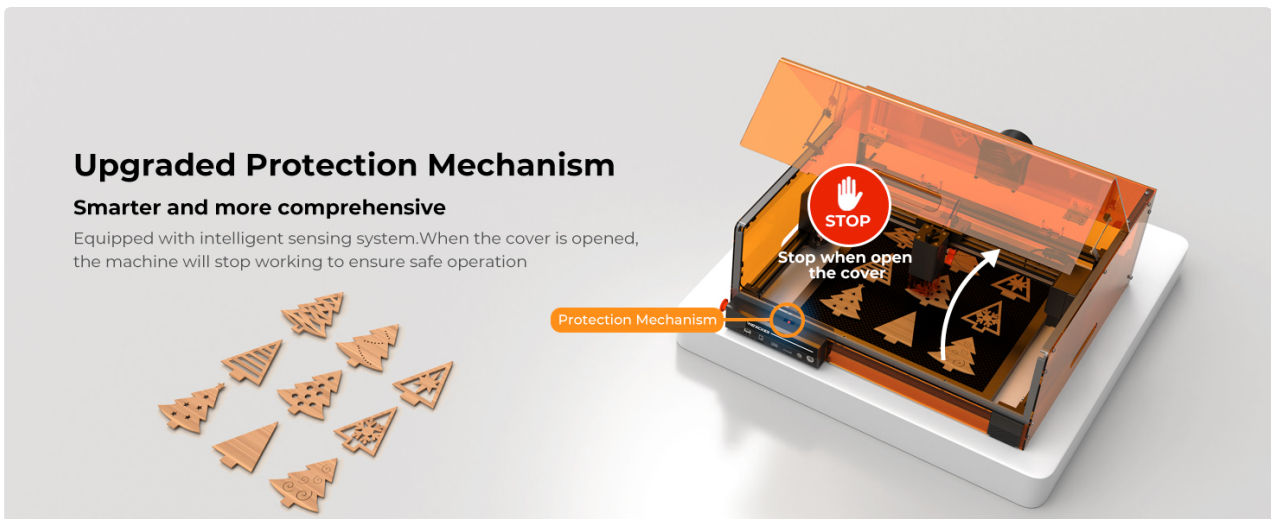


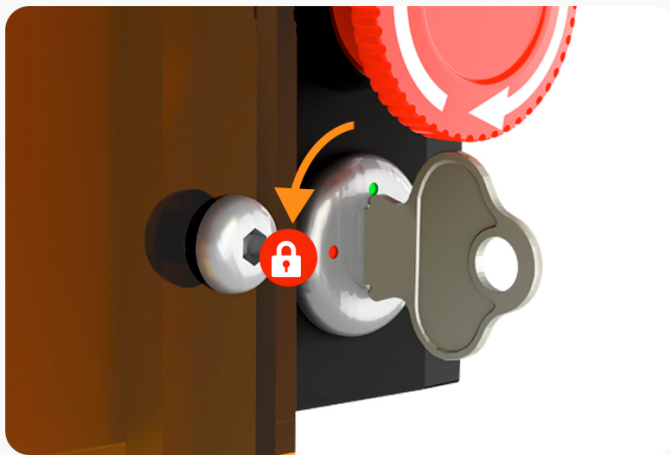
Figure 16: 5W laser cutting capabilities.

## Emergency Stop Button

Press the emergency stop button to stop all work of the machine.



Figure 17: 10W laser cutting capabilities.



## Child Safety Lock

Key lock requires twisting to open, preventing misuse by child

Figure 18: 20W laser cutting capabilities.

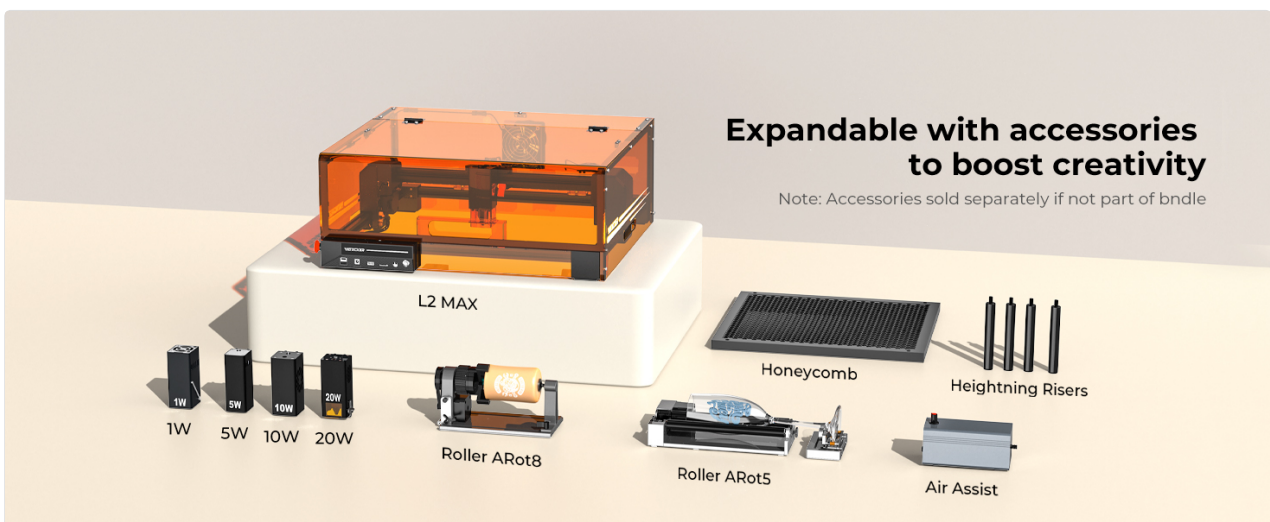


Figure 19: Examples of materials and projects possible with different laser modules.

## 4.3 Using Accessories

Enhance your engraving and cutting experience with optional accessories.

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Video 1: This official Woxcker video demonstrates the use of various accessories, including the air purifier, air assist, and rotary modules (ARot 8 and ARot 5), showcasing their installation and functionality for enhanced engraving and cutting.

### 4.3.1 Air Assist

Air assist effectively blows away smoke generated during engraving, reduces high-temperature buildup, prevents dust accumulation on the laser module, and extends machine lifespan. It also improves the clarity of cuts.

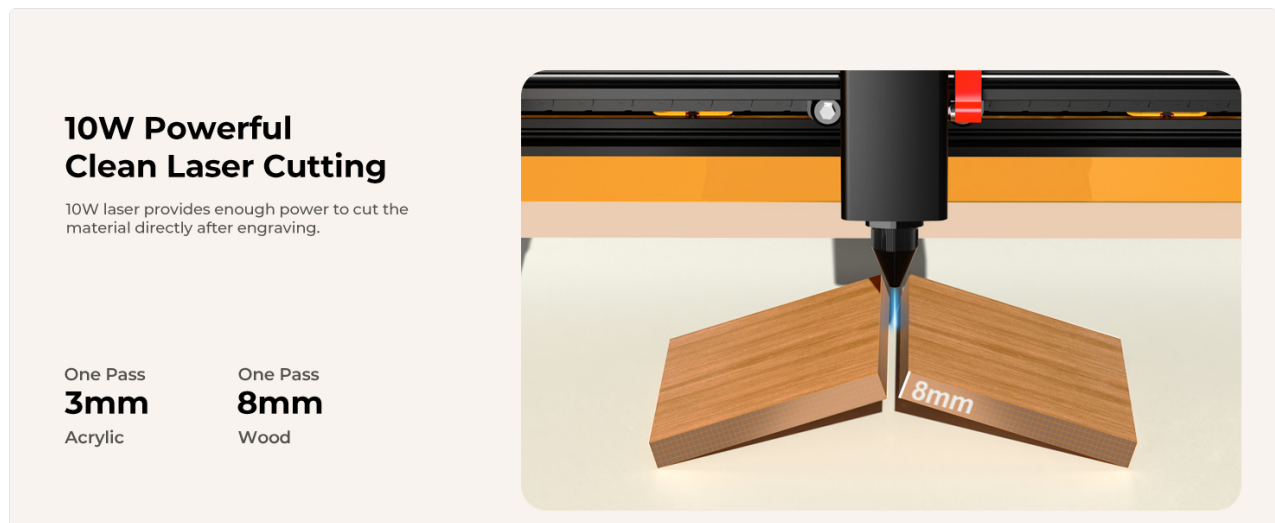


Figure 20: Air assist improves cutting quality and machine longevity. (Sold separately)

### 4.3.2 Rotary Modules (ARot 8 & ARot 5)

Rotary modules allow for engraving on cylindrical and curved objects such as cups, bottles, pens, and rings. The ARot 8 is a 3-in-1 all-purpose rotary module, while the ARot 5 is designed for easier engraving of various cylindrical items.



Figure 21: The L2 MAX is expandable with various accessories to boost creativity. (Accessories sold separately)

## 5. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your Woxcker L2 MAX.

- **Clean the Lens:** Periodically clean the laser lens with a soft, lint-free cloth and appropriate lens cleaner to maintain engraving precision.
- **Clear Debris:** Regularly remove dust and debris from the engraving area and exhaust fan to prevent buildup and ensure efficient smoke removal.

- **Check Connections:** Ensure all cables and connections are secure before each use.
- **Lubricate Moving Parts:** Refer to the detailed manual for instructions on lubricating the guide rails and other moving components, if necessary.

## 5.1 Honeycomb Worktable

Using a honeycomb worktable prevents damage to your work surface from high-power cutting and improves airflow for better results.



Figure 22: A honeycomb worktable protects your surface and enhances cutting performance. (Sold separately)

## 6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter. For more complex problems, please contact customer support.

- **Machine Not Powering On:**
  - Ensure the power adapter is securely connected to both the machine and a working power outlet.
  - Check if the emergency stop button is disengaged (rotated counter-clockwise).
  - Verify the safety lock key is in the correct position.
- **Laser Not Firing/Engraving:**
  - Confirm the lid is fully closed.
  - Check software settings to ensure the laser power and speed are correctly configured for your material.
  - Clean the laser lens for any obstructions or dirt.
  - Ensure the laser module is properly seated and connected.
- **Poor Engraving Quality:**
  - Adjust laser focus according to the material thickness.
  - Verify material settings (power, speed, passes) in your software.
  - Ensure the material is flat and securely placed on the worktable.
  - Consider using air assist for cleaner cuts and engravings.
- **Connectivity Issues (WiFi/USB):**
  - For WiFi, ensure the machine is within range of your router and connected to the correct network.
  - For USB, try a different USB port or cable.
  - Restart both the machine and your computer/device.

## 7. SPECIFICATIONS

Feature	Detail
Manufacturer	Woxcker
Model Number	L2 MAX
Laser Output Power	10W (Class 1 Output: 10000mW)
Engraving Area	300 x 300 mm (11.8 x 11.8 inches)
Engraving Precision	0.01mm (Fixed Spot)
Engraving Speed	Up to 20,000mm/min
Product Dimensions	21.57 x 18.78 x 8.43 inches
Item Weight	19.16 pounds
Material	Metal
Color	Black
Included Components	Accessories, Engraving Material, Laser Engraver, Multi-Language Menu, Power Adapter
Software Compatibility	LightBurn, LaserGRBL, CutLabX
Connectivity	WiFi, USB, APP, TF card offline use

## 8. WARRANTY AND SUPPORT

The Woxcker L2 MAX comes with a manufacturer's warranty. For specific warranty details and duration, please refer to the documentation included with your product or contact Woxcker Official customer support.

For technical assistance, troubleshooting, or inquiries regarding your product, please contact Woxcker Official customer service. Contact information can typically be found on the manufacturer's website or in the product packaging.

Optional protection plans may be available for purchase separately to extend coverage beyond the standard warranty. Please check with your retailer for details on available protection plans.