

 **QUAKELOGIC**

# QL-DualCut Max 120

DUAL LASER ENGRAVING SYSTEM



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## DUAL LASER ENGRAVING SYSTEM

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- The QL-DualCut Max Dual 120 Laser Engraving System is an advanced industrial-grade dual-source laser platform engineered for high-precision marking, engraving, and cutting across a wide range of materials including polymers, composites, and metals.
- Integrating a high-power CO<sub>2</sub> laser with a fiber MOPA laser in a single unified system, the platform enables seamless processing of both organic and metallic materials without reconfiguration.
- Designed for aerospace-grade applications such as part marking, trimming, and drilling of 3D printed components, the system delivers high-speed performance, exceptional accuracy, and repeatability within a large-format working envelope.
- The system incorporates intelligent motion control, camera-assisted positioning, and production-oriented workflow optimization to ensure consistent, high-quality output in demanding industrial environments.

## Technical Specifications:

Laser Configuration:	<ul style="list-style-type: none"> <li>• Dual Source (CO<sub>2</sub> + Fiber MOPA)</li> </ul>
CO <sub>2</sub> Laser Power:	<ul style="list-style-type: none"> <li>• 120 W (10.6 μm wavelength)</li> </ul>
Fiber Laser Power:	<ul style="list-style-type: none"> <li>• 60 W MOPA (1064 nm wavelength)</li> </ul>
Work Area (X × Y):	<ul style="list-style-type: none"> <li>• 48 in × 36 in (1219 × 914 mm)</li> </ul>
Maximum Material Thickness (Z):	<ul style="list-style-type: none"> <li>• 12.25 in (311 mm)</li> </ul>
Machine Type:	<ul style="list-style-type: none"> <li>• Industrial Dual-Source Laser Engraver &amp; Cutter</li> </ul>
Processing Capabilities:	<ul style="list-style-type: none"> <li>• Engraving</li> <li>• Cutting</li> <li>• Marking</li> <li>• Drilling / Precision Ablation</li> </ul>
Maximum Engraving Speed:	<ul style="list-style-type: none"> <li>• Up to 165 IPS (4.2 m/s)</li> </ul>
Acceleration:	<ul style="list-style-type: none"> <li>• Up to 5G high-speed motion system</li> </ul>
Motion System:	<ul style="list-style-type: none"> <li>• High-precision servo-driven system with closed-loop control</li> </ul>
Positioning Accuracy:	<ul style="list-style-type: none"> <li>• ±0.001 in</li> </ul>
Repeatability:	<ul style="list-style-type: none"> <li>• ±0.0005 in</li> </ul>
Optical System:	<ul style="list-style-type: none"> <li>• CO<sub>2</sub> lens: 2" standard, 4" optional</li> <li>• Fiber/Dual lens: 3" precision lens</li> </ul>



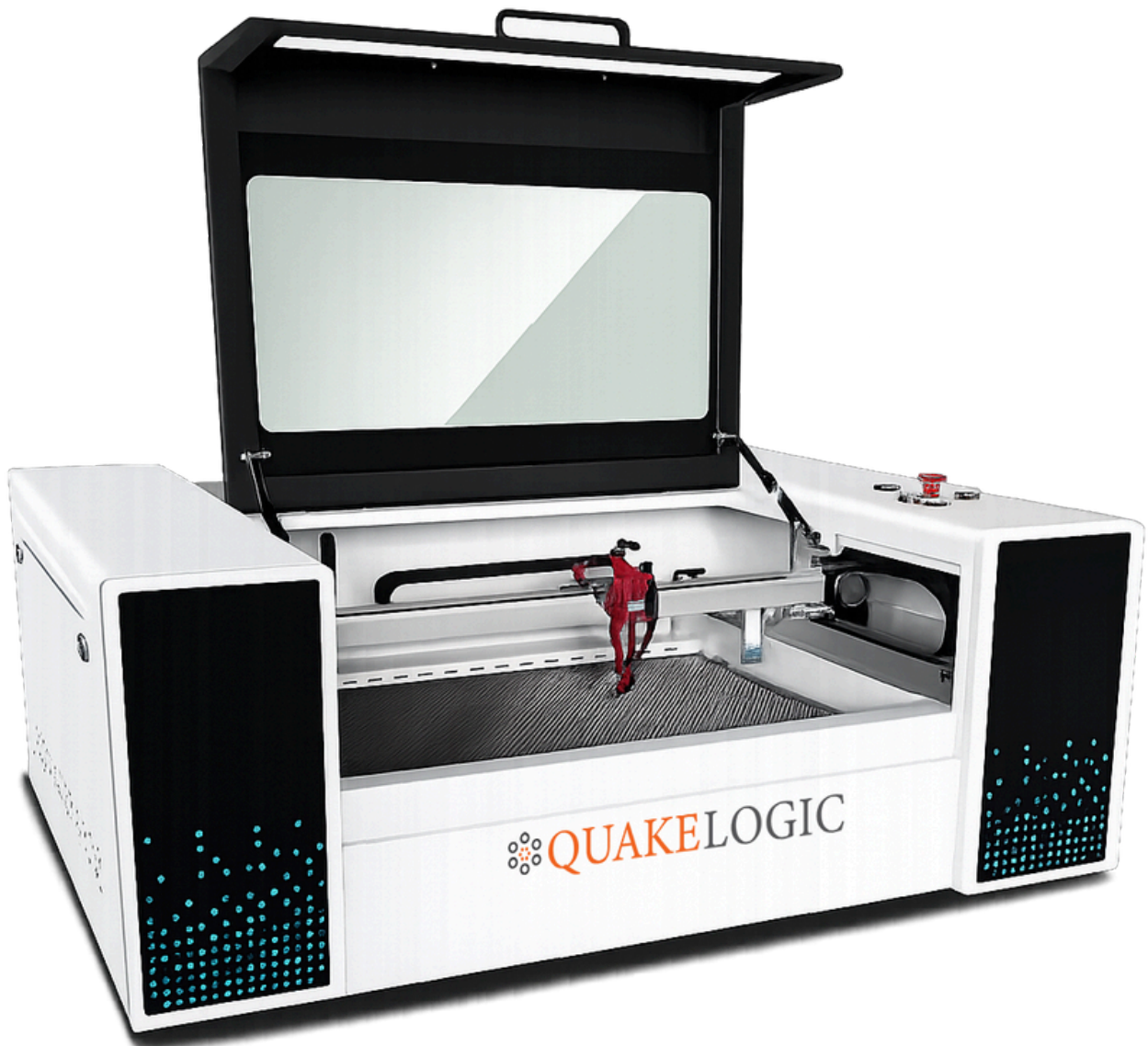
## Technical Specifications:

Beam Quality (Fiber):	<ul style="list-style-type: none"><li>• <math>M^2 &lt; 1.5</math></li></ul>
Camera System:	<ul style="list-style-type: none"><li>• Integrated overhead camera alignment system for real-time positioning and job registration</li></ul>
Software & Control:	<ul style="list-style-type: none"><li>• Advanced laser control software with raster/vector optimization</li><li>• CAD/CAM compatibility (DXF, AI, PLT, BMP, etc.)</li><li>• Job queue &amp; batch processing capability</li><li>• Network-enabled operation (Ethernet / USB)</li></ul>
Operating Modes:	<ul style="list-style-type: none"><li>• Raster Engraving</li><li>• Vector Cutting</li><li>• Combined Mode</li></ul>
Cooling System:	<ul style="list-style-type: none"><li>• Industrial air-cooled laser sources</li></ul>
Air Assist:	<ul style="list-style-type: none"><li>• Integrated high-pressure air assist system</li></ul>
Table Configuration:	<ul style="list-style-type: none"><li>• Multi-purpose engraving table (task plate)</li><li>• Optional vector cutting grid / slat table</li></ul>
Memory Capacity:	<ul style="list-style-type: none"><li>• <math>\geq 1</math> GB onboard job storage</li></ul>
File Handling:	<ul style="list-style-type: none"><li>• Unlimited job size via streaming processing</li></ul>



## ✓ Technical Specifications:

✓	Electrical Requirements:	<ul style="list-style-type: none"><li>• 220–240V AC, 50/60 Hz</li><li>• Single-phase industrial supply</li></ul>
	System Dimensions:	<ul style="list-style-type: none"><li>• Approx. 70 in × 50 in × 42 in class system</li></ul>
	System Weight:	<ul style="list-style-type: none"><li>• ~650 lbs</li></ul>



# Connect with QuakeLogic – QL-DualCut Max 120 Dual Laser Engraving & Cutting System

## Corporate Headquarters

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## Executive Support Line

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Direct access for executive consultations and priority support.

Available Monday - Friday, 9 AM - 5 PM PST

## Strategic Inquiries

**[sales@quakelogic.net](mailto:sales@quakelogic.net)**

For dual-source laser engraving, cutting, and precision material processing applications across metals, polymers, and composite materials.

## Engineered for Precision and Industrial Performance

### Certified Quality Assurance

Designed in compliance with industrial safety standards, featuring emergency stop systems, interlocks, and integrated protection mechanisms ensuring safe and reliable dual-laser operation.

### Pioneering Industry Leadership

120W CO<sub>2</sub> + 60W MOPA fiber laser with a large 1219 × 914 mm working area and engraving speeds up to 4.2 m/s, enabling high-precision cutting, marking, and engraving on both metal and non-metal materials.

### Dedicated Client Success

Providing full turnkey solutions including integrated air assist, advanced motion control, camera alignment system, and software integration to ensure efficient workflow and long-term operational performance.

## Explore Advanced Laser Processing Solutions



### Scan to Explore Dual-Source Laser Solutions

Discover how the QL-DualCut Max 120 Dual Laser System delivers precision cutting, engraving, and marking across polymers, composites, and metal surfaces with consistent, high-quality results.

With high-accuracy positioning ( $\pm 0.001$  in), repeatability ( $\pm 0.0005$  in), and a high-speed servo-driven motion system, the platform ensures stable, repeatable performance for advanced industrial applications.

**[www.quakelogic.net](http://www.quakelogic.net)**