**System Overview.**

**Target Capability**: High-powered, large-format CO2 laser system (120W) designed for high speed engraving and deep cutting. The equipment must be an industrial-grade system to prevent production bottlenecks, eliminate maintenance delays, and provide reliable output for internal signage and command projects.

**Core Requirements & Accessories.**

**Host Design Station**: A dedicated, pre-configured workstation PC to run the laser design software and transmit jobs to the machine. No internet or Bluetooth connection. Software must be installed directly on the computer and work via usb or cable to the machine directly.

**Cutting Bed**: A Vector Grid Double Kit to lift materials off the solid bed, minimizing back flash burns during vector cutting operations. Standard bed plates should be included.

**Air Assist and Compressor:** An internal or auxiliary system that blows constant air at the focal point to keep sparks, debris, and smoke away from the optical lens.

**Optical Lenses: In addition to the standard included items:**

1.5" High-Detail Lens: Creates a smaller spot size. Best for high-DPI engraving, fine text, and micro-details. Qty 1

2.0" Standard Lens: The default optical lens for general cutting and engraving. The system must include three (3) spares/replacements of this lens.

**Training Package**: Professional operator onboarding to instruct the team on software operation, optics maintenance, and safe machine operation.

**Technical Specifications**

- **Work Area:** 48" x 36" (1219 x 914 mm) bed size.
- **Maximum Z-Depth:** 12.25" (311 mm) clearance to accommodate tall items.
- **Cabinet Dimensions:** 70.6" W x 51.3" D x 42.75" H (1794 x 1304 x 1086 mm).
- **Table Weight Limit:** Supports a 150 lbs. (68 kg) static load, or an 85 lbs. (38.6 kg) load when utilizing the active lifting motor.
- **Camera System:** Two overhead cameras providing a stitch-free, real-time live preview of the entire 4-foot-wide bed (e.g., Iris camera system).
- **Laser Tube:** CO2 Waveguide Laser Tubes with beam-enhancing optics (e.g., Radiance™).
- **Memory:** 1GB internal memory in the machine.

**Hardware & Safety Features**.

**Interface**: Touch screen located directly at the laser.

**Connectivity**: No internet or Bluetooth connectivity on site. Updates need to be done VIA USB or other in person methods.

**Safety & Environment**: Integrated safety features (e.g., SAFEGUARD™), Air Assist integration (Pro 48 / Pro 24 & 36), and Split Table functionality.

**Electrical Requirements.**

**Voltage Requirements**: Auto-switching 220-240 volts; 50 or 60Hz, single-phase machine.

**Power Draw**: 10 Amp draw-MAX for 120W.

**Plug Type**: Machine to power source must use the NEMA L6-15P plug.

**The machine needs to be made and supported in the USA.**

**2-year warranty on parts and labor if possible.**