

1|ONELASER

COBRA™ SERIES

PEAK GLASS LASER WITHIN REACH



Workshop Essential Laser Engraver

Cobra is designed with one clear goal—to be the best starting point for your laser business.

Unlike the Hydra Series—our pinnacle RF laser built as the ultimate performance endgame—Cobra focuses on accessibility without compromising capability.

As a complete glass CO₂ laser platform, it delivers high-performance glass tube capability within reach—so you can start strong without overinvesting.

Engineered for reliability and ease of use, Cobra helps you avoid unnecessary downtime and frustration, while giving you access to practical, high-value features typically found only in higher-end machines—all backed by our dedicated U.S. engineering team.

With Cobra, you're set up to move faster from day one—so you can focus on creating, selling, and growing your business.

Speed

For Those Who Refuse to Slow Down.

Delivering 1,200 mm/s engraving speed and 2G acceleration

Power

Power Through 300+ Materials.

90W/100W/130W DC Glass Tubes
Dual-Laser Ready (CO₂ + 3W/5W IR)

Bigger

More Space. More Opportunities.

Cobra 8 : 31.50" × 19.69"
Cobra 10 : 39.37" × 23.62"
Cobra 14 : 55.12" × 35.43"

Features & Function

Features Usually Found Only In High-End Systems.

Dual-Laser Power
MagSwitch™
Higher Precision Camera

Cobra Can Do Far More Than You Dare To Dream...

Powered by its dual-laser capability, Cobra effortlessly processes over 300 types of materials, unlocking limitless versatility for your business.



Materials	Cut	Engrave
Wood	🔴	🔵
Glass	🔴	🔵
Paper white	🔴	🔵
Paper colored	🔴	🔵
Cardboard	🔴	🔵
Leather	🔴	🔵
Textiles	🔴	🔵
Mirror		🔵
Stone		🔵
Ceramics		🔵
Cork	🔴	🔵
Food	🔴	🔵
Plastics	🔴	🔵
Metals		
Aluminum		🔵
Aluminum anodized		🔵
Precious metals		🔵
Titanium		🔵
Stainless steel		🔵
Coated metal (varnished)		🔵
Brass		🔵
Coppe		🔵

10 Key Innovations

01 1,200 mm/s & 2G Acceleration

The Cobra Series stands as the most efficient glass-tube laser machine in the industry, delivering 1,200mm/s engraving speed and 2G acceleration. Even at maximum velocity, it achieves razor-sharp detail with up to 1,000 DPI engraving precision. Cleaner edges, clearer detail -- engineered for high-efficiency, high-quality production.

02 DSP Control System

Cobra's high-power motor system hits 2G acceleration and 1,200 mm/s — outpacing every glass-tube machine on the market. Less overshoot, faster recovery, smoother paths. And with DSP path optimization, Cobra runs 2 to 3 times more efficiently than G-code machines. A 30-minute job? Done in 10 to 15.

03 90W/100W/130W DC Glass Tubes

Choose the perfect power for your production. Available in 90W (upgradable to 100W), 100W, and 130W CO₂ glass tube options to cut thicker and engrave faster.

04 Dual-Laser Ready (CO₂ + 3W/5W IR)

No retrofitting needed. The laser head features a pre-configured interface for an optional 3W/5W IR module, unlocking true dual-laser capability.

05 Master 300+ Materials

Go far beyond traditional CO₂ limits. Use the CO₂ laser for cutting and engraving non-metals, and switch to the IR module for precise metal engraving.

06 Through-Feed Door Design

Practical through-feed door design (front and rear feeding, up to 45mm thickness) enables easy handling of extra-long materials and breaks through conventional processing size limitations.

07 Smart Dual Air-Assist

The Smart Dual Air-Assist System auto-switches between Low-Air for clean, detailed engraving corners and High-Air for faster cutting speed and safety. Fully automatic and software-integrated — delivering cleaner edges and better results every time.

08 Autofocus & Red-Dot Positioning

Autofocus is a core feature of every CO₂ laser — but it needs to be consistent, reliable, and built to last. With COBRA, it is. Simply place your material, press autofocus, and the machine sets the perfect focal distance every time. No guesswork, no adjustments.

09 MagSwitch™

Our patented magnetic design makes lens changes and cleaning incredibly fast and completely tool-free. Switching focal lengths has never been easier.

10 GT5c Full Touch Screen Panel

Embedded touch panel flush with casing, offering a sleek, dust-resistant, and impact-resistant design. Sensitive and precise touch response ensures easy operation and reliable protection, suitable for diverse complex environments.

The image displays a grid of 15 feature cards for the Cobra laser machine. The cards are arranged in a 3x5 grid. The top row includes: 'Ball-Screw Z-axis', 'Think Bigger. Earn Bigger. Massive Work Area' (with dimensions for Cobra 14, 10, and 8), 'Dual-Laser Power' (CO₂ Laser for Cutting and Engraving Non-Metal Materials, and 3W/5W IR Laser for Detailed Metal Engraving), '2G Acceleration Raster Engraving Speed 1,200 mm/s', and 'Aerospace-Grade Aluminum (NVH-Tested)'. The middle row includes: 'GT5c Touch Screen', 'Higher Precision Camera' (with text: 'Visually place your design directly on the material before the laser ever fires (with drag-and-drop support)'), 'Peak Glass Laser Within Reach Workshop Essential Laser Engraver' (showing three models: 90W, 100W, and 130W DC Glass Tube), 'DSP-Based Control System' (Delivers 2-3x higher real processing efficiency), and 'MagSwitch™' (makes lens changes and cleaning fast and completely tool-free). The bottom row includes: 'Synchronized Belt System', 'Smart Dual Air-Assist' (Delivering cleaner edges & better results every time.), 'Autofocus', 'Red-Dot Positioning', 'Process Over 300+ Types Of Materials' (CO₂ laser: Cutting and engraving non-metal materials. The optional 3W/5W IR module: Precise engraving on selected metal surfaces.), and 'FDA Class 1' (Built-in Safety & Smart Engineering).

The Cores of High-Performance

Unrivaled Speed & Mechanical Perfection

2G Acceleration & Raster Engraving Speed

1,200 mm/s



Real Production Speed

It's not just about specs. It's about how much time you save on every single job.

The ROI in Real Numbers

Running a 100-piece order on a standard machine takes an estimated 9 hours and 52 minutes. Cobra completes the exact same run in just **3 hours and 11 minutes**. That is nearly **7 hours of production time saved**—every single day.

The Secret to the Speed

Powered by a powerful hybrid stepper motor paired with **2G acceleration**, the laser head recovers its maximum speed instantly after every directional change. This drastically minimizes overshooting and idle travel, keeping your production at peak efficiency.

High-Rigidity Mechanical Foundation

Speed means nothing if the quality can't keep up. COBRA is engineered to stay stable and accurate.

Fully Enclosed, Anti-Vibration Structure

The Z-axis is dual-driven by a high-precision **ball screw and synchronous belt system**. This heavily reinforced transmission design ensures exceptional stability and a repeat positioning accuracy of $\leq \pm 0.01$ mm.

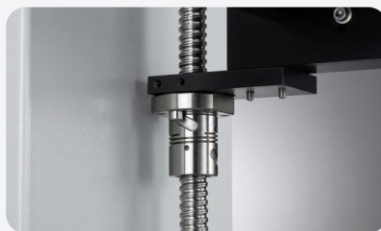
Flawless 1,000 DPI Engraving

A fully fixed honeycomb table effectively eliminates micro-shifts during high-speed operation, translating mechanical rigidity into the ultimate engraving quality at a breathtaking **1,000 DPI**.



Aerospace-Grade Aluminum

The gantry is constructed from high-density, integrally extruded aerospace-grade aluminum, and validated through NVH (Noise, Vibration, Harshness) testing to maintain stability even at high speeds.



Ball-Screw Z-Axis

The high-precision Ball-Screw Z-axis delivers a remarkable repeat positioning accuracy of ± 0.01 mm, ensuring your focal height remains perfectly consistent for flawless engraving on every layer.



Synchronized Belt System

Engineered with an Integrated Synchronous Belt System, Cobra eliminates backlash and torque loss, providing ultra-smooth motion and rock-solid stability even during high-speed vertical adjustments.

Smart Workflow — Eliminate Tedious Setups

Visual Alignment, Zero Guesswork (Camera & Drag-and-Drop)

Equipped with an ultra-high-resolution 16MP wide-angle camera and a movable Z-axis platform, COBRA allows you to visually place and align your artwork directly on the material surface. Simply drag and drop your design in the software to completely eliminate manual framing errors and alignment uncertainty. You see exactly how your design will land before you ever hit start.



True Autofocus & Red-Dot Preview (Autofocus & Red-Dot)

Simply place your material and press autofocus—the machine automatically sets the optimal focal distance every single time with zero manual adjustment. Before the laser even fires, the red-dot module acts as your clear visual guide, showing exactly where the beam will land. Say goodbye to guesswork, setup errors, and wasted materials.



Set It and Forget It (Smart Dual Air-Assist)

Seamlessly integrating hardware and controller logic, the Smart Dual Air-Assist automatically optimizes airflow for different applications. It automatically delivers high pressure for penetrating cuts and switches to low pressure to protect delicate engraving details. Just set it once, and the machine automatically switches for you—delivering a perfectly clean finish that is 100% hands-off.

Smart Dual Air-Assist

Delivering cleaner edges & better results every time.



Cobra Model Comparison & Specs

	 Cobra 8	 Cobra 10	 Cobra 14
Machine Size			
Workspace Area	31.50" x 19.69" (800x500mm)	39.37" x 23.62" (1,000x600mm)	55.12" x 35.43" (1,400x900mm)
Z-Axis Max Bed Travel	5.91" (150mm)	11.02" (280mm)	11.02" (280mm)
Machine Size	58" x 41" x 26" (1470x1040x670mm)	66" x 43" x 37" (1680x1090x940mm)	76" x 54" x 37" (1930x1380x940mm)
Machine Weight	396.83 lb (180 kg)	595.25 lb (270 kg)	771.62 lb (350 kg)
Laser Source			
Glass CO ₂ Laser Tube	90 W	100 W	130 W
CO ₂ Laser Cooling Method	Water Cooling	Water Cooling	Water Cooling
IR Laser	Optional 3W/5W IR Module	Optional 3W/5W IR Module	Optional 3W/5W IR Module
Performance			
Motor	Hybrid Stepper Motor	Hybrid Stepper Motor	Hybrid Stepper Motor
Raster Engraving Speed (RES)	1,200 mm/s	1,200 mm/s	1,200 mm/s
Vector Maximum Speed (VMS)	1,500 mm/s	1,500 mm/s	1,500 mm/s
Real Time Acceleration (RTA)	2 G	2 G	2 G
Minimum Engraving Size / Minimum Font Size	0.0394" x 0.0394" (1.0mm x 1.0mm)	0.0394" x 0.0394" (1.0mm x 1.0mm)	0.0394" x 0.0394" (1.0mm x 1.0mm)
Positioning Accuracy	±0.0008" (±0.02mm)	±0.0008" (±0.02mm)	±0.0008" (±0.02mm)
Max Scanning Precision	1,000 DPI	1,000 DPI	1,000 DPI
Camera	16 MP	16 MP	16 MP
Max Lifting Capacity	44.09 lb (20 kg)	66.14 lb (30 kg)	110.23 lb (50 kg)
Configuration			
Water Chiller	Optional	Optional	Optional
Fume Exhaust Fan	Optional	Optional	Optional
Air Assist	Smart Dual Air-Assist (Built-in)	Smart Dual Air-Assist (Built-in)	Smart Dual Air-Assist (Built-in)
Auto Focus	✓	✓	✓
WiFi Data Transfer	✓	✓	✓
Red Dot Positioner / Red Dot Positioning	✓	✓	✓
Material Pass Through Door	✓ (1.772")	✓ (1.772")	✓ (1.772")
Max Part Size (WxDxH)	31.50" x 19.69" (800x500mm)	39.37" x 23.62" (1,000x600mm)	55.12" x 35.43" (1,400x900mm)
Control & Software			
Control Panel	GT5c	GT5c	GT5c
Memory Capacity	1 G	1 G	1 G
Lightburn Software	✓	✓	✓
Compatible Software	CorelDraw, Photoshop, AutoCAD, InkScape, or any software that can export into the supported file formats		
File Formats Supported	AI, PDF, SC, DXF, HPGL, PLT, RD, SCPRO2, SVG, LBRN, BMP, JPG, JPEG, PNG, GIF, TIF, TIFF, TGA		
Operating System	Windows & Mac OSX	Windows & Mac OSX	Windows & Mac OSX
Power Requirements			
Voltage/Frequency	110/60 HZ	110/60 HZ	110/60 HZ
Amperage	11 A	11.5 A	13.5 A
Rated Power Draw	1,200 W	1,250 W	1,450 W

Accessories



Exhaust Fan



Exhaust Pipes



Air Assist Pump



Tool Box



Pipe Clamps



Water Hose for Water



Focus Lens Repair Tools



Ceramic Resistor



Keys



Silicone Sealant



D USB Cable



Double-sided Tape



A Set of Hex Wrenches



Flat Head Screwdriver
Phillips Screwdriver



USB



Water Chiller
Alarm Cable



Ethernet Cable



Power Cord



USB Cable



Air Tube
Ground Lead

**Peak Glass Laser
Within Reach**

Workshop Essential Laser Engraver



US Machine Company

Our Local Commitment



Certified Safety (FDA Class 1)

Utilizing a CO₂ laser integrated with a fully enclosed housing and a safety lid detection system, it fundamentally eliminates the risk of retinal damage—outperforming dangerous open-frame UV or Diode lasers. It ensures operator protection and gives you the most comprehensive protection.

Built to Last (Industrial-Grade Durability)

Engineered with scientifically rigorous electrical and mechanical designs, the machine undergoes long-term fatigue and abuse testing to ensure it is an industrial powerhouse and not a toy. Its robust industrial design ensures durability, maintaining reliability under high-volume, long-term use.



Local Support, Global Reach

Backed by a strong local U.S. technical support team, our service team provides quick assistance and rapid-response after-sales service. This ensures smooth operations and maximum uptime for your production line.



- 📞 949-355-4000
- 🌐 www.engraverschoice.com
- ✉️ Sales@engraverschoice.com
- 📍 Mission Viejo, CA. 92691



Facebook



Instagram



YouTube



Tiktok



X