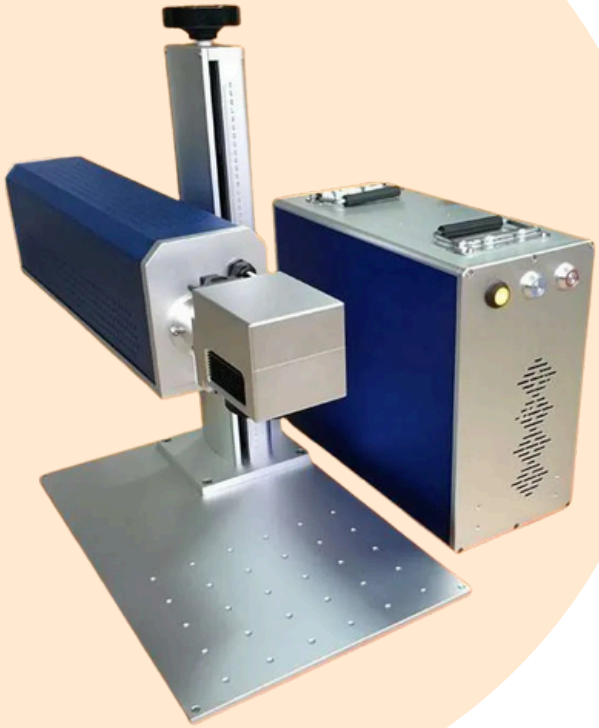
HeatSign
The Science of Marking



CO2 Laser

Marking Machine — HS-CL Series

HS-CL40L (40W) · HS-CL60 (60W)

Fast, permanent marks on wood, acrylic, leather, plastic & more — no ink.

Why CO2 — The Non-Metal Marking Specialist

A CO2 laser (10.6µm) is soaked up by non-metals. It burns clean, permanent marks into wood, acrylic, leather, glass, paper, and most plastics — no ink, no labels. It even marks coated and painted metal.

Permanent, No Ink

The laser changes the surface itself. Marks won't smudge, peel, or wash off.

Huge Material Range

Wood, acrylic, leather, paper, plastic, and coated metal — one machine.

Fast Galvo Head

Up to 7,000 mm/s. Most marks finish in seconds — about 10× a gantry engraver.

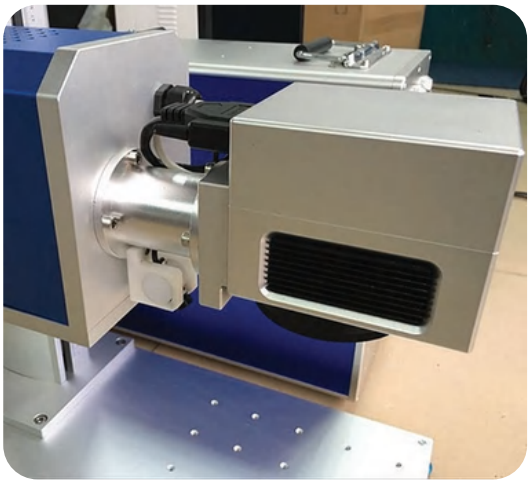
CO2 Laser vs. Ink, Labels & Hot-Stamping

What Matters	HeatSign CO2 Laser	Ink / Labels / Stamping
Permanence	Marked into the surface — stays for good.	Smudges, peels, or fades.
Running cost	Zero consumables after purchase.	Keep buying ink, foil & labels.
Speed	Seconds per part, hands-free.	Slower, more manual steps.
Detail	Fine logos, codes & photos, ±0.01mm.	Limited fine detail.

Simple rule: CO2 marks non-metals & coated metal · fiber marks bare metal. Not sure? We'll help you pick.

Features & Benefits

Built around a sealed RF metal tube — stable power, long life, and low upkeep for daily production.



Laser Marking Head

Control buttons

RF Metal Tube
20,000+ hours of stable life. No fragile glass tube.

Air-Cooled
No chiller, no water, no freeze risk. Water cooling optional.

Fast Galvo Marking
Up to 7,000 mm/s. Small jobs finish in seconds.

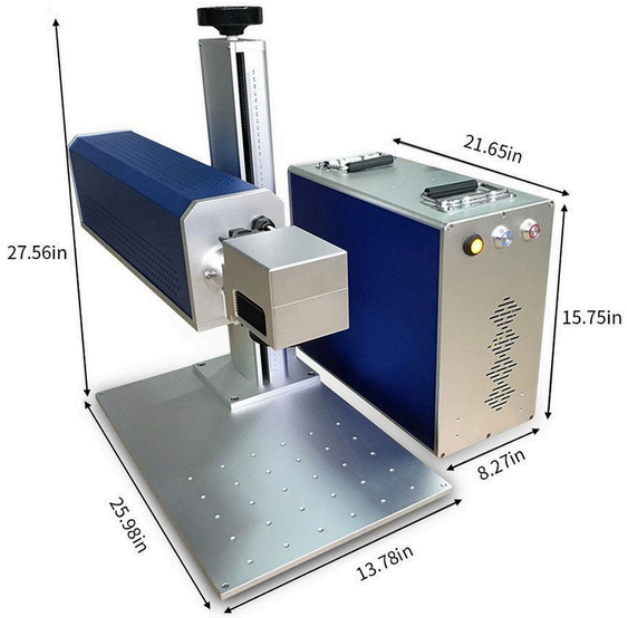
No Consumables
No inks, no labels. Low running cost, no mess.

Wide Material Range
Wood, acrylic, leather, glass, paper, rubber & most plastics.

Easy EZCAD Software
Imports AI, PLT & DXF; builds serials and codes.

Double Red-Light Focus
Two pointers show the right focus height fast.

Low Maintenance
Sealed tube, air cooling — built for all-day runs.



Dimensions Diagram

Detailed Diagram

Configure in 3 Steps

Choose Your Power

40W HS-CL40L Standard

Best for daily marking on wood, acrylic, leather, paper, and plastic. Clean logos, codes, and fine detail at the best value.

60W HS-CL60 MORE POWER Deeper & Faster

Best for deeper marks, dense plastics, thick acrylic, and fast tumbler wrap. Runs quicker on big batches.

Choose Your Configurations

Static Table

A lifting table for flat parts and sheets — simple and steady.

Rotary Axis

For round parts — bottles, cups, pens, and coated tumblers.

Choose Your Marking Area

110×110mm	140×140mm	210×210mm
Standard field	Medium parts	Larger parts

Also available: 175 / 300mm fields. A wider lens covers more area but softens fine detail — we help you match it.

What's in the Box

Power Line

USB Line

Ground Wire

Foot Swift

USB Drive

Position Bar

Safety Goggles

Allen wrench

Manual

Ruler

Every machine ships with: control cabinet · galvo head & lens · lifting work table · EZCAD USB · safety goggles · focus tool · wrench set · manual.

What You Can Mark

EVERYDAY INDUSTRIAL MARKING

CO2 LASER

Permanent logos, text, codes, and fine etching on almost any non-metal — plus coated and painted metal.

Wood & Bamboo | Acrylic | Leather | Plastics | Paper & Card | Rubber | Coated Metal

Wood & Bamboo

Acrylic & Signage

Leather Goods

Paper & Packaging

Plastics

Coated Tumblers

MARKS ANY CONTENT

Logos & Branding | Serial Numbers | QR & Bar Code | Date & Batch Codes | Texts | Photos & Art

Marking bare metal?

CO2 light reflects off bare steel and aluminum. For serials and codes on uncoated metal, use a **fiber laser marking machine** instead.

Glass or crystal your main job?

Light surface branding on glass works, but some glass can crack — test first. For glass and crystal, a **UV laser** is often the cleaner choice.

Machine Specifications

We've grouped matching values so it's easy to see exactly where the two models differ.

Machine Feature	HS-CL40	HS-CL60
Laser Type Long-life sealed metal tube.	Sealed RF CO2 Metal Tube	
Laser Power Higher power = deeper & faster.	40W	60W
Wavelength Tuned for non-metals.	10.6 µm	
Marking Speed How fast the galvo traces.	up to 7,000 mm/s	up to 8,000 mm/s
Marking Area Field from the lens.	110×110mm (opt. 140 / 175 / 210 / 300mm)	
Marking Depth Varies by material.	0.01 – 0.5mm	
Repeat Accuracy Hits the same spot each time.	±0.01mm	
Min Character Smallest sharp detail.	1 mm height text	
RF Tube Life Stable working hours.	More than 20,000 hours	
Cooling & Software Stays cool; what it runs on.	Air-cooled (water optional) · EZCAD (PLT/DXF)	
Power & Warranty Set to your region.	110 or 220V · 50–60Hz · 1-year + lifetime support	

Your Laser Marking Partner

Tell us your material — wood, acrylic, leather, plastic, paper, or coated parts — and we'll match the right power, field, and table. Fair price, 1-year warranty, lifetime support.

✔ Free expert advice ✔ Right machine for your job ✔ Clear quote, no pressure

Proven Results
Clean marks on non-metals.

Built to Last
RF metal tube, 20,000+ hrs.

Setup Support
EZCAD help & sample tests.

Direct & Fair
Buy direct. Fair price, reseller terms.

TRUSTED BY SHOPS IN 40+ COUNTRIES

HeatSign
The Science of Marking

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