HeatSign
The Science of Marking

Desktop Fiber Laser

Marking Machine Series

HS-FL20 (20W) · HS-FL30 (30W) · HS-FL50 (50W)

Precise marks on metal & plastic. No ink. No mess. No upkeep.

Why Fiber Laser Marking — and Why Ink, Spray & Stickers Fall Short

A fiber laser burns the mark into the metal itself. It never wipes off. No ink, no stencils, no chemicals. One small machine marks metal and some plastic all day long.

Marking QR codes and logos on metal

Permanent

Survives washing, oil, chemicals, and daily wear. The mark is part of the part.

Laser marking on plastic electronic enclosures

Zero Consumables

No ink, gas, water, or labels to buy. Air-cooled and plug-and-play.

Marking of stainless steel components

Fast & Precise

A serial number, logo, or QR code in seconds. Crisp text down to 0.5mm.

Fiber Laser vs. Ink, Spray & Stickers

WHAT IT AFFECTS	HeatSign Fiber Laser	Ink / Spray / Stickers
Permance	Marked into the surface — stays for life.	Wipes, fades, or peels off over time.
Running cost	Zero consumables after you buy it.	Keep buying ink, spray & labels forever.
Speed	Seconds per part, hands-free batches.	Slow, manual, one at a time
Materials	Almost all metals + some plastics.	Surface only, not durable.

One machine. Permanent marks that outlast the whole working life of the part.

Features & Benefits

Built for daily workshop use — simple to run, reliable for years, and cheap to own.

Laser Head

Control Panel

Compact Benchtop
Fits on your table. Easy, safe manual loading.

Zero Consumables
No ink, gas, or water. No running costs.

Easy EZCAD Software
Text, serials, logos, QR codes in minutes.

High-Speed Marking
A full code in seconds, up to 7000 mm/s.

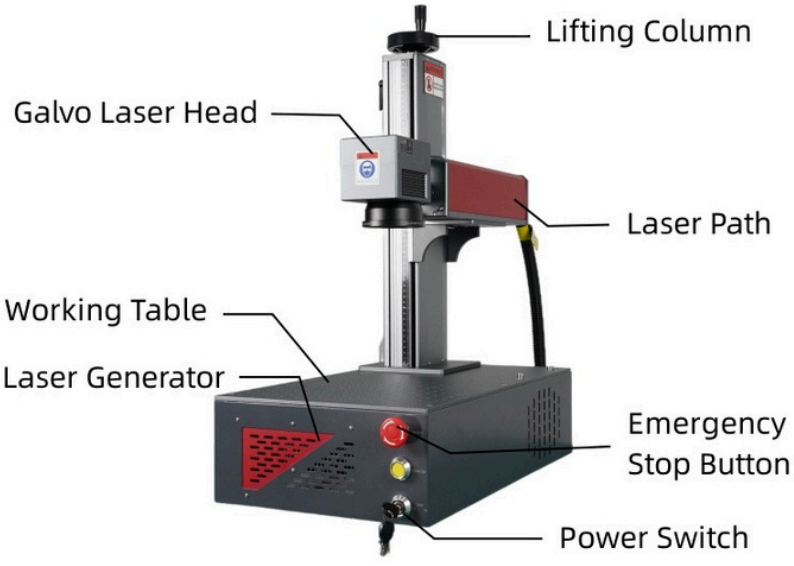
Crisp Fine Detail
SClear text and codes down to 0.5mm.

Air-Cooled
No water chiller. No leaks, no refills.

Maintenance-Free
Theoretically Up to 100,000 hours. No parts to swap.

Reflective-Metal Safe
Built-in isolator protects the laser on copper & brass.

Dimensional Diagram



Detailed diagram

Choose Your Machine & Accessories

Same reliable build across the line. Power decides speed, depth, and which metals you can mark.

20W

HS-FL20

Surface Marks & Some Plastics

- Light metal marks & codes
- Hard plastics (ABS, PVC)
- Tags & best-value entry

MOST POPULAR

30W

HS-FL30

Daily Metal Serials

- Steel part numbers & codes
- Reflective brass & copper
- Fast daily batches

50W

HS-FL50

Deep Marking & Speed

- Deep marks on hard metals
- Big fields, fastest speed
- Optional 60W upgrade

Optional Accessories

Larger Lens

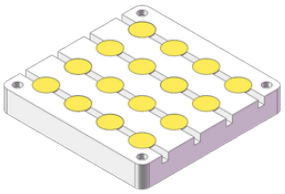
150 / 175 / 200 / 300mm field for bigger parts.

Rotary Axis

Mark round parts — tubes, rings, handles.

Auto-Focus

One-key motorized focus for fast changes.



Custom Fixture

Made to fit your exact parts for fast, repeatable batch loading.

LENS RULE — **a wider lens spreads the beam thinner. Keep 20W & 30W at 150×150mm or less for sharp marks. A 300×300mm field needs the 50W.**

What's in the Box

Foot Pedal

USB Cable

Power Cable

Safety Goggles

USB Drive

Hex Wrench Set

What You Can Mark

EVERYDAY INDUSTRIAL MARKING STANDARD FIBER LASER

One machine covers almost all common metals and some plastics — permanent, high-contrast marks that survive the factory floor.

Stainless Steel | Carbon Steel | Aluminum | Brass | Cooper | Titanium | Iron & Alloys | Chrome | ABS & PVC

- # Serial Numbers
- QR & Texts
- Barcodes
- Logos & Branding
- </> Part & Date Codes
- Deep Engraving

Hard Metals & Steel Plates

High-contrast text and logos on steel, stainless, aluminum, brass, copper, and titanium. Stays readable after chemicals, oil, and heavy washes.

Hard Plastics & Electronic Boxes

Clear marks on ABS, PVC, and engineering plastics. No contact, no bending, no heat damage. Codes don't fade or wipe off.

Tools, Valves & Bolts

Deep, permanent size data and tracking codes on wrenches, drills, bolts, valves, and fittings. Resists grease, scratching, and sandblasting.

Need a different material tested? Send us a photo and the material name — our team will check if it marks well.

Machine Specifications

Shared values are merged so you can see exactly where the three models differ.

Machine Feature	HS-FL20	HS-FL30	HS-50
Laser Engine Type The core that makes the laser beam.	Solid-State Fiber Laser (1064 ± 10nm)		
Laser Power Higher power = faster marks & deeper engraving.	20W	30W	50W
Max Marking Speed How fast the mirrors move the beam.	≤ 7,000 mm/s		≤ 8,000 mm/s
Max Engraving Depth How deep the laser cuts in one pass.	≤ 0.1mm	≤ 0.15mm	≤ 0.5mm
Reflective Metal (brass/copper) Marking shiny, mirror-finish metals.	Not ideal	Yes	Yes
Standard Marking Area Work area out of the box.	110 × 110mm		
Optional Lenses Bigger fields for bigger parts.	150mm x 150mm	up to 200mm	up to 300mm
Repeat Accuracy Hits the same spot every time.	±0.001mm		
Pulse Frequency How fast the laser flashes.	20 – 80 kHz		
Laser Life Working hours of the fiber core.	50,000 – 100,000 hours		
Cooling & Software Stays cool; what it runs on.	Forced air (no water) · EZCAD (Windows XP/7/10/11)		
Power & Warranty Set to your region before shipping.	110V or 220V +/- 10% / 50–60Hz · 1-year warranty + lifetime support		

Famous-brand laser core, tough aluminum shell, and clean wiring — built to run for years, not a cheap online kit.

Your Laser Marking Partner

Tell us your material and your goal. We help you pick the right machine — and back it for the long run. Fair price, 1-year warranty, lifetime support.

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

Proven Results
Trusted marks on metal & some plastic.

Built to Last
Famous-brand core, tough shell.

Setup Support
EZCAD ready in under 30 min.

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

TRUSTED BY SHOPS IN 40+ COUNTRIES

ABB GE BOSCH CUMMINS LYB

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SCAN ME