



GRENTSUN

— Think Along Your Lines

Laser Coding System

Grentsun®GSL3000

The GSL3000 series CO2 laser coding machines combine powerful performance and flexibility, delivering high-quality markings on medium to high-speed production lines. With fast marking speeds and multiple industrial interfaces, they enable seamless integration in factories and support Industry 4.0 connectivity.

Grentsun® GSL3000 delivers clear, high-quality coding essential for high-speed packaging operations. With virtually no limitations on fonts, codes, or images, it enables rapid production, making it an ideal solution for complex coding in industries such as food, beverage, cosmetics, pharmaceuticals, and extrusion processing.

CO2 Laser Marking Effects

Chemical reaction between laser and product induces color change;

Surface engraving (e.g., bubbling PET or etching glass);

Ablating/removing surface coating to reveal underlying color;

Carbonizing/controlled burning of wood or cardboard;

Melting plastics to create recessed/raised textures.



Enhanced System Usability & Stability

- Self-developed OS with customizable functions
- Intuitive operation for fast onboarding
- Robust performance for continuous production line operation

Green Laser Solution

- 25k hour MTBF laser lifetime
- Triple-wavelength options: 9.3µm/10.2µm/10.6µm
- No hazardous & consumable-free operation

Flexible & Efficient Operation

- Visible laser alignment (real-time positioning)
- Multi-level user access to prevent misoperation
- Smart line-speed adaptation

Full-Cycle Service Package

- Turnkey service: Installation, debugging & training
- Lifetime free software upgrades

Grentsun®GSL3000

CO2 Laser Coding System

Coding format

15 Languages: CN/EN/ES/RU (self-selected)

Variables: Date/Serial/Time/Text/Shift

Codes: 1D/2D barcodes

Graphics: Logos (DXF/PLT/JPG/PNG/BMP)

Shapes: Lines/Dots/Circles/Rectangles

Coding speed (varies with application)

Speed: Max. 12000mm/s

Coding area (more options available)

110mm*110mm; 140mm×140mm

175mm×175mm

HMI control System

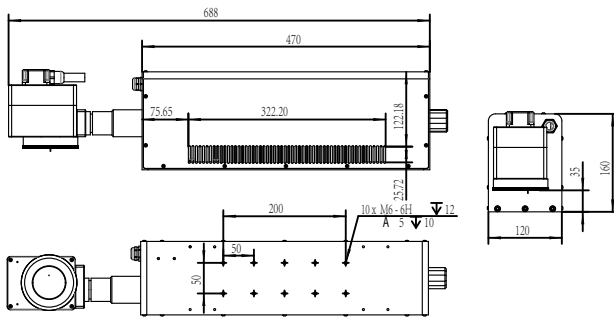
Dual operation modes: PC software / 10.1" color touchscreen

Data transfer: USB flash drive for job & settings import/

exportStandard I/O: Ethernet, USB, encoder, sensor

portsOptional safety: Jirixiang alarm + remote interlock (dual-channel)

Coding unit dimension



Memory Function

Preloaded common settings for quick recall (no repetitive editing)

Auto-date synchronization with system time

Operating Conditions

Temperature: 0-45°C (32-105°F)

Humidity: 10-90% non-condensing

Dust-proof construction

Cooling & Protection

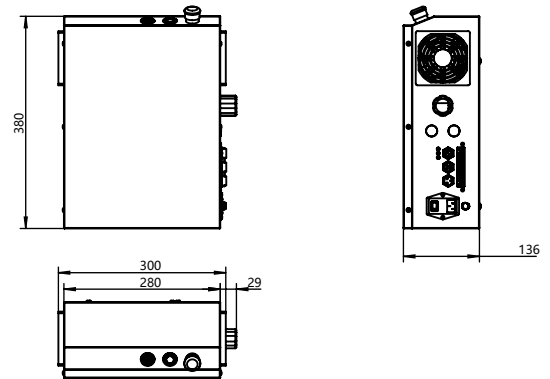
Air cooling system

Protection level: IP54 rating (Optional IP65)

Power Requirements

Voltage: 100-120V / 200-240V ACPhase: 1PH, 350VAC (auto-ranging)Frequency: 50/60Hz

Power Cabinet Dimensions



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