HGLASER

ONLINE LASER MARKING APPLICATION SOLUTION

Company
Vision

HGLASER is a high-tech enterprise with business scope of laser processing technology and manufacture . As the pioneer of laser industry in China, HGLASER takes customers' requirement and service as our fundamental interests.

HGLASER Flying Series products can noncontact mark clear characters or graphs on fast moving material . The main advantages of our products are consumable free and working well even in the adverse working condition or complex production line.

Contents

HGTECH

Diversified Products

Flying UV Laser Marking Series
Flying Fiber Laser Marking Series
Flying CO₂ Laser Marking Series

Laser Wave Length :355 nm
HUARAY Laser Source
Limit Thermal Region
Small Focusing Spot Size
Especially for Special Material Marking

Flying UV Laser Marking Series

Flying Fiber Laser Marking Series

Good Beam Mode
Reliable and Stable System
Laser Source Life Over 100,000 Hours
Especially for Long-distance Transmission
in Complex Production Line

Imported CO₂ Laser Source
Good Beam Mode
Maintenance-free and Installation-flexible
Especially for Working in Various Conditions

Flying CO₂ Laser Marking Series

Laser Mark VS Ink Jet

There are two ways for anti-counterfeit, that is laser mark and jet ink . Coding has been used in commodity business, food and pharmaceuticals industry.

Laser Mark VS Ink Jet

		Laser Marker	Ink Jet
Performance	Anti-counterfeit	Character can be dot matrics or line Marking on product surface Non-removable and changeable	Removable and changeable
	Working Condition	High efficiency Online Non-stop laser marking Working on static state and dynamic state	Only working on dynamic state
	Flexibility	Marking serial number, lot number, bar code, QR code, logo, graphic	Marking bar code, lot number and simple graphic
	Reliability	24-hour continuous working Maintenance free and little environment affection	High failure rate Great environment affection
Operation & Installation	Use	Windows and interface with high resolution	Low resolution
	Installation	Compact size and marking head can be installed on production line in various plant	Some machines should be connected with air compressor
Cost	Initial Cost	High	Low
	Operating Cost	Low	High
Data Processing	—	Strong ability of data transmission and processing	Limited ability of data transmission and processing
Environmental Protection and Safety	—	Environmental-friendly (GB7247-87; GB10320-88)	Environmental-pollution

HGLASER
PRODUCTS

Application Field

Beverage Industry

Bottle Beverage

1) Production Date Marking
2) QR Code Marking
3) Traceability Code Marking

- There are two ways for anti-counterfeit, that is laser mark and jet ink . Coding has been used in commodity business, food and pharmaceuticals industry.
- Flying 5U Laser Marking Machine is applied for QR code marking on bottle cap made of HDPE, PE and PP material.

Canned Beverage

1) QR Code or Winning Number Marking Inside the Tab
2) QR Code Marking on Can Surface
3) Production Date Marking on Can Surface

- Flying 20F Fiber Laser Marking Machine is applied for QR code or production date marking on aluminum can
- Flying 50C CO_2 Laser Marking Machine is applied for QR code or production date marking on tin plate

Dairy Package

1) Production Date Marking
2) QR Code Marking
3) Traceability Code Marking

- Flying UV Laser Marking Machine is applied for production date or QR code marking on HDPE material.
- Flying CO_2 Laser Marking Machine is applied for production date marking on TETRAPAK.

Liquor Package

1) Production Date Marking
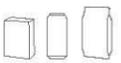2) QR Code Marking
3) Traceability Code Marking

- Flying CO_2 Laser Marking Series are applied for production date marking on glass and ceramics bottle ,and is also the best choice for traceability code and product information marking on corrugated box.

Typical Clients

HGLASER
PRODUCTS

Application Field

• Flying CO₂ Series are applied for production date marking on PE or PET film and best choice for QR code and production date marking on paper box.
• Flying UV Series are applied for QR code and production date marking on PE or PET film.

Food Industry

Canned Food
Production Date and QR Code Marking

Bagged Food
Production Date and QR Code Marking

Packed Food
Production Date and QR Code Marking

Typical Clients

• Flying UV Series are applied for production date marking on
• PE or ABS material
  Flying Fiber Series are applied for QR code and production date marking on package
  Flying CO₂ Series are applied for QR code and production date marking on PE or HDPE material

Daily Chemical Industry

Bottle Package
Production Date and QR Code Marking

Bag
Production Date and QR Code Marking

Carton
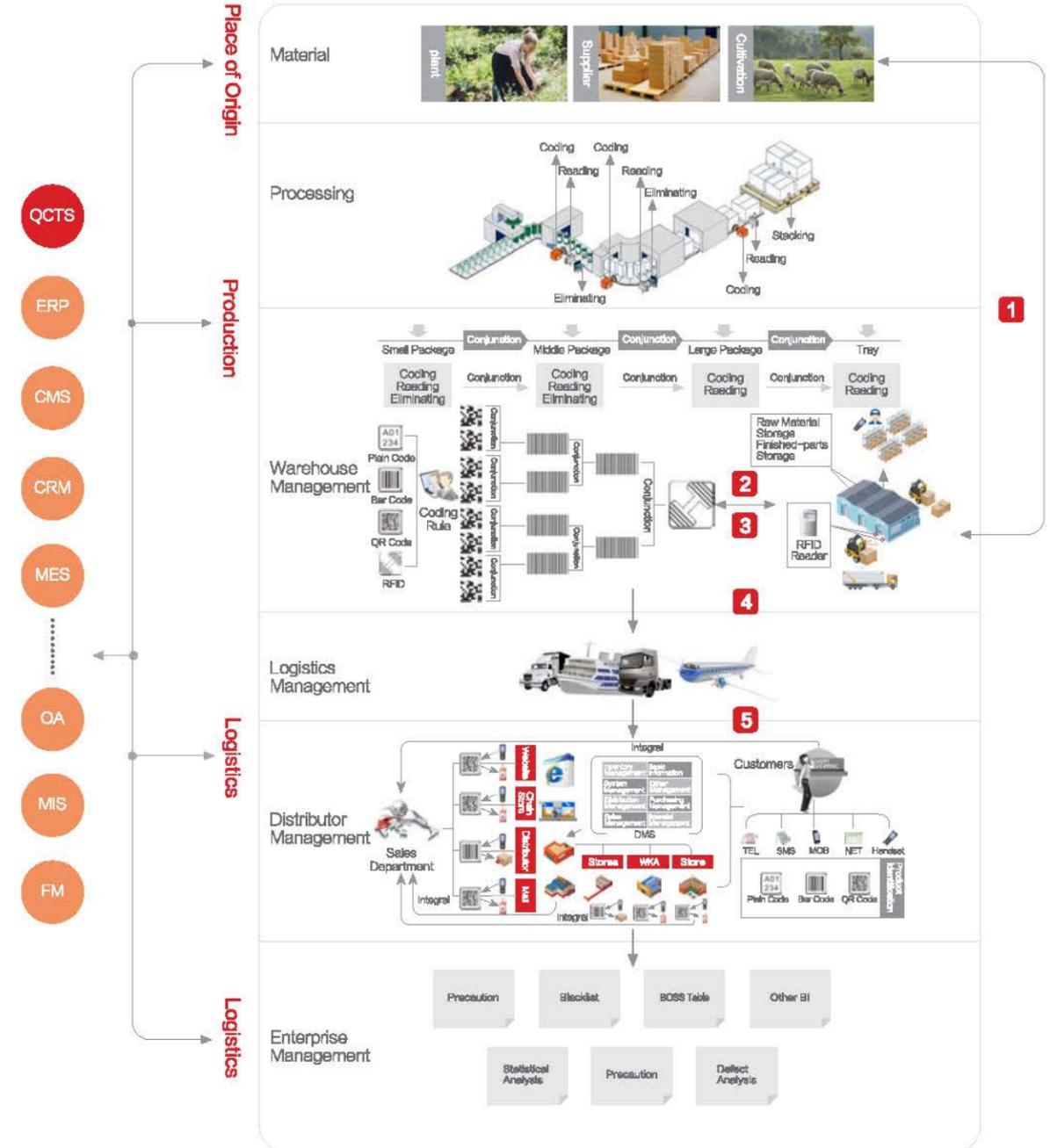Production Date and QR Code Marking

Typical Clients

Application Field

Others

Flying CO_2 and Fiber Laser Marking are applied for Battery , Electronics, Cables , Tubes , Section Bar and Pharmaceuticals industry

Typical Clients

SIEMENS   OMRON   沧州明珠 Cangzhou Mingzhu   TCL   美的 Midea   BULL公牛   实德集团 SHIDE GROUP   中国电信

QCTS
Quality Control
Tracing system

QCTS—Quality Control Tracing System is a user-configurable, validated, off-the-shelf tool, used to quickly identify issues that impact quality and cost, and to ensure that appropriate follow-up and actions are taken. It's widely used in consumer products manufacturers, such as liquor, food, beverage, tobacco, medicine, daily chemical, household appliances, clothing, mechanical manufacturing and etc.

QCTS

ERP

CMS

CRM

MES

OA

MIS

FM

Place of Origin

Production

Logistics

Logistics

Material

Processing

Warehouse Management

Logistics Management

Distributor Management

Enterprise Management

HGLASER PRODUCTS

# Flying CO₂ Laser Marking Series

Details

- Professional industrial laser source to ensure high speed and consistency of marking
24-hour's stable working to meet the need of volume production
- Human conversation interface

Application

It's suitable for various non-metallic material and some metallic material , such as PVC, paper, rubber, wood, glass, ceramics, PET, plastic, HDPE, leather and etc. It's mostly applied for package box, package bag, thin film, food can, glass bottle, beverage bottle, HDPE bottle , tube, cable and electronic components.

Optical Cabinet   Operating Cabinet
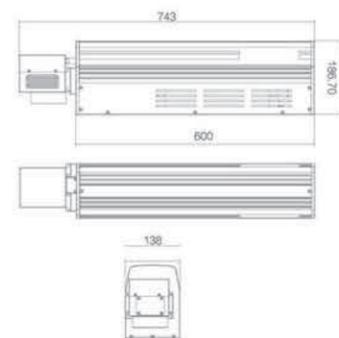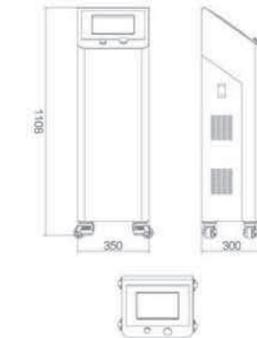
Technical Parameters

Model		Flying10C / 30C / 55C / 70C / 100C			
Marking Parameter	Focusing Lens	F=160	F=100(Optional)	F=210(Optional)	F=254(Optional)
	Marking Area	110*110	69*69	145*145	175*175
	Working Distance	152.7±6mm	100.9±4mm	204.3±8mm	256±10mm
	Marking Speed	400 cha/sec(350/500 Optional),Times New Roman, 2mm(Height)			
	Repositioning Resolution	<24μ rad(F160,3.7μm)			
	Min.Marking Character	0.4mm			
	Min.Line Width	0.1mm(Depending on Material)			
Marking Laser	Wavelength	CO₂/10.6 μm,CO₂/10.2 m,CO₂/9.3 μm			
	Output Power	10/30/55/70/100			
	Power Stability	±5%rms			
Indicator Laser	Pulse Repetition Frequency	0 ≤ F ≤ 25kHz			
	Wavelength	Red Light ,650nm			
	Output Power	<5mW			
Others	Operating Environment	0-35℃, Humidity≤ 90%			
	Cooling Method	Air Cooling			

HGLASER PRODUCTS

# Flying Fiber Laser Marking Series

Details

- Compact size and easy-installed bracket to satisfy production line in complex working conditions
- Professional industrial laser source to ensure high speed and consistency of marking
- 24-hour's stable working to meet the need of volume production
- High photoelectric conversion efficiency , consumable free and long life time
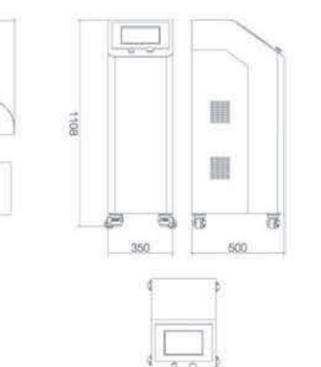- Human conversation interface

Application

It's suitable for various metallic material and some non-metallic material. It's applied for metallic material after surface processing, PVC, aluminum film, rubber, plastic and HDPE.

Optical Cabinet   Operating Cabinet
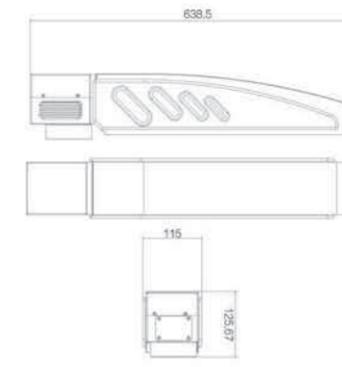
Technical Parameters

| Model		Flying 10F/20F/30F/50F			
Marking Parameter	Focusing Lens	F=160	F=100(Optional)	F=210(Optional)	F=254(Optional)
	Marking Area	110*110	69*69	145*145	175*175
	Working Distance	180±3.6mm	107±2mm	226±4.5mm	278±5.6mm
	Marking Speed	500 cha/sec(400/640 Optional),Times New Roman, 1mm(Height)			
	Repositioning Resolution	<2μ rad(F160,0.36μm)			
	Min.Marking Character	0.2mm			
	Min.Line Width	60μm(Depending on Material)			
Marking Laser	Wavelength	Fiber / 1064nm			
	Output Power	10/20/30/50			
	Power Stability	<3%rms			
Indicator Laser	Pulse Repetition Frequency	20KHz ≤ F ≤ 80kHz			
	Wavelength	LD Red Light ,650nm			
	Output Power	<5mW			
Others	Operating Environment	0-35℃, Humidity≤ 90%			
	Cooling Method	Air Cooling			

Flying UV Laser Marking Series

Details

- Compact size and easy-installed bracket to satisfy production line in complex working conditions
- Professional industrial laser source to ensure high speed and consistency of marking
- 24-hour's stable working to meet the need of volume production
- High photoelectric conversion efficiency , consumable free and long life time
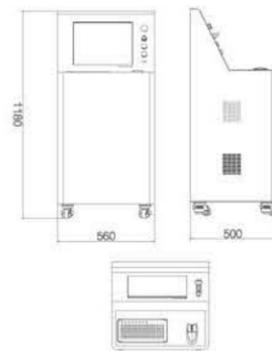- Human conversation interface

Application

It's widely applied for eletronic components, intergrated circuit, metallic tool, auto parts.

Optical Cabinet

892
709
150
250

Operating Cabinet

1180
560
500
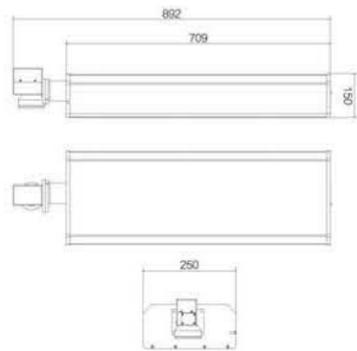
Technical Parameters

Model	Flying3U	Flying5U	Flying12U	Remarks
Wavelength		355nm		
Laser Source		HUARAY		
Output Power	≥3	≥5	≥12	
Marking Speed		≥7m/s		
Marking Area		110*110mm		145*145mm(Optional)
Focal Length		180mm		
Character		Dot Matricx / Line		
Mode		Static/Dynamic		Depend on Marking Content
Online Marking Speed		≤ 120m/min		
Material		Label/Paper/PET/HDPE/PE		
Working Temperature		5-35℃		
Working Humidity		Humidity≤ 95%		
Structural Material		Aluminium Alloy/Stainless Steel		
Edit Mode		Computer Software		
Communication Interface		USB;RS232;Internet Access		
Power Supply		AV220V/50HZ		
Power Consumption	1500W	1600W	2000W	

After-sales Service

HGTECH
Industrial Park
Laser Source
Precision Micro-
Laser-scale
Equipment
Processing Centre

Cangzhou Laser Processing Industrial Park

Shenzhen Huagong Laser Equipment Co.Ltd

FARLEY LASERLAB
Industrial Park
High-power Laser
Cutting & Welding
Industrial Park
CNC Plasma Industrial Park

Australia R&D Centre

8h Feedback online + **24h** Solution
Local Installation and Training Service

As the pioneer of Chinese laser industry, HGLASER has sold thousands of machines all around the world. HGLASER has overseas branches and offices in Australia, USA, India, Vietnam , Malaysia and Taiwan. With local installation and service members, HGLASER has always provided customer-oriented solutions .