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## **HUBEI BUVA LASER**

Hubei Buva Technology Co., Ltd.

Laser Welding | Laser-Arc Hybrid Welding | All-in-One Laser Soldering System | Laser Cutting | Laser Cladding & Hardening | Laser Cleaning | Laser Marking

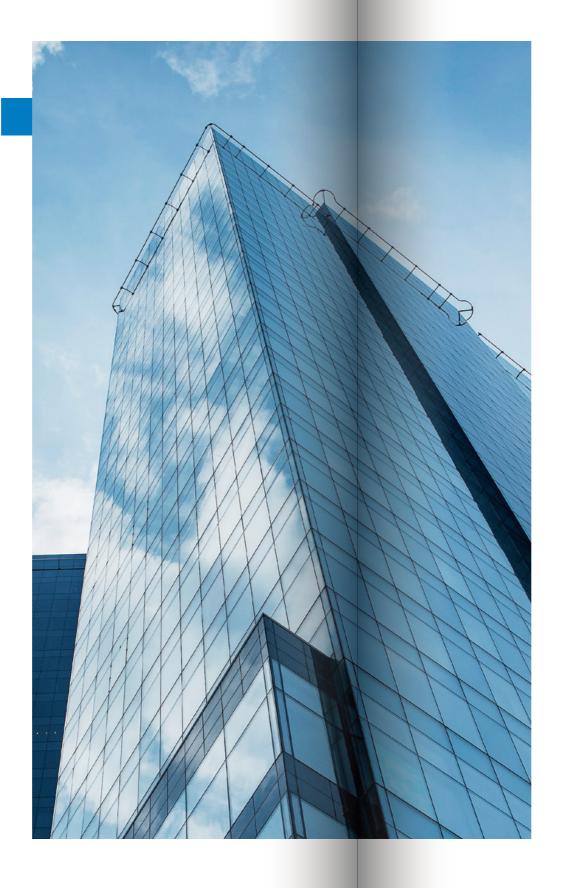
## **Company Profile**

Hubei Buva Technology Co., Ltd., based in Wuhan Optics Valley, China, is a high-tech enterprise specializing in R&D, production, and sales of laser engineering equipment.

We provide customized and cost-effective laser solutions, with products covering laser cladding, laser-arc hybrid welding, handheld laser welding, integrated laser soldering, cutting, cleaning, and marking systems.

Supported by advanced expertise and a strategic partnership with Wuhan University of Technology, we focus on developing practical applications in laser welding and additive manufacturing.

To ensure rapid response, we have established technical service centers in North America and Eastern Europe, with plans to further expand our global support network.



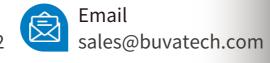
## Catalog

Our Product Portfolio

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## **Product description**

**Welding Robot** 

Integrating a CNC system, precision robotic arm, real-time sensing, and a welding unit into a synchronized operation, this advanced robot delivers fully automated welding with unmanned operation and micron-level control over trajectory and parameters. By replacing human expertise with mechanical precision, it enables robotic TIG welding, laser-arc hybrid welding, laser autogenous welding, and laser wire-feed welding—ensuring consistently stable high-quality weld seams.

## **Complex Parts**

Flawless Welds

## **Total Automation**

Brand: BUVAuncom	Model: BV-R12-1400/1800/2000
Mechanism	Articulated Robot
Number of Control Axes	6
Laser Power	3000W/6000W/12000W (Optional)
Repeat Positioning Accuracy	±0.03 mm ~ ±0.05 mm
Working Voltage	AC 380V/50Hz
Drive Method	AC Servo Drive
Installation Method	Floor / Ceiling / Wall

## **Product Application**

## **Application Scenarios**

Vehicle skin laser tailor welding, battery structures, high-speed train door laser seal welding, airtight cylinder structures, high-temperature high-pressure intake/exhaust systems, large stainless steel water-cooling structures, corrosion-resistant high-strength sealing structures, ballistic armor components, graphite compression structures for fourth-generation reactors.

## **Applicable Industries**

Automotive manufacturing, aerospace, electronics, sheet metal and steel structure industries.



**Battery Structure Welding** 



Intake and Exhaust System Welding



High-Speed Train Door Welding



Gas-Tight Cylindrical Structure



Ballistic Armor Structural Component Welding

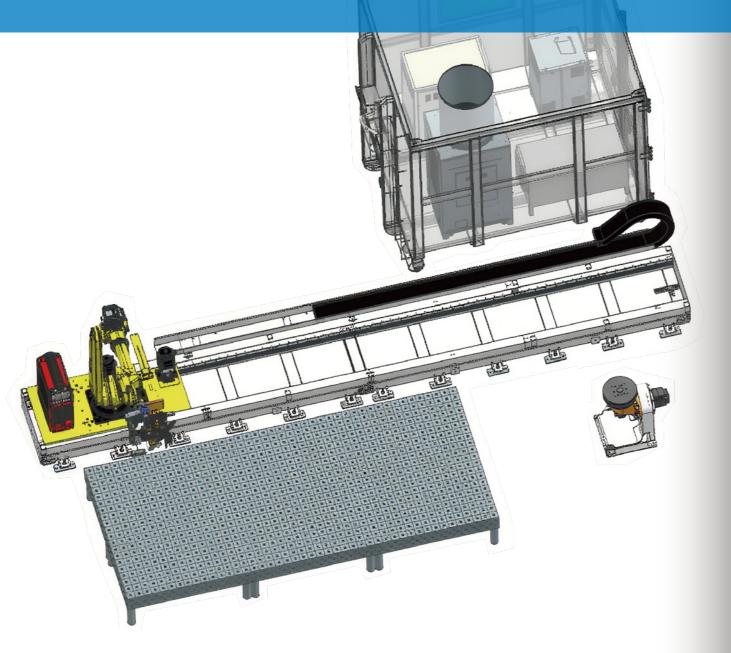


Corrosion-Resistant High-Strength Sealing Structure Welding

## **Laser-Arc Hybrid Welding**

## **Product description**

Laser-arc hybrid welding is a process that combines a focused laser beam with an electric arc into a unified heat source, which acts on the material surface to achieve welding through controlled movement. By integrating two fundamentally different heat sources in terms of physical characteristics and energy transfer mechanisms, this technology creates a synergistic effect that overcomes the limitations of single-source welding. It offers high efficiency, superior quality, and energy savings, making it particularly advantageous for medium-to-thick plate welding applications.



### **Product Application**

## Shipbuilding

Widely adopted for large-scale structural components such as decks and bulkheads. Kilowatt-level hybrid welding replaces traditional arc welding, increasing efficiency by over 50%.

## Construction Machinery

Growing demand for welding structural parts like box girders and U-ribs drives lightweight manufacturing upgrades in the industry.

### New Energy Vehicles

Aluminum alloy body welding has become a mainstream approach, with hybrid welding effectively solving thermal deformation issues caused by conventional processes.

## Emerging Applications

Hybrid welding technology is rapidly expanding into sectors including rail transit bogies, oil and gas pipelines, and energy storage equipment.











Solder Dispensing & Welding

**Integrated System** 



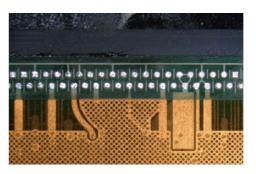
## **Product description**

BV-SW100 Integrated Laser Solder Welding System
Developed by Chuangbufan Tech, the BV-SW100 integrates automatic solder dispensing and laser welding into a single station. Through precision wire feeding, accurate laser heating, and real-time positioning correction, it achieves a fully automated closed-loop process from material supply to soldering — eliminating reliance on manual operation.

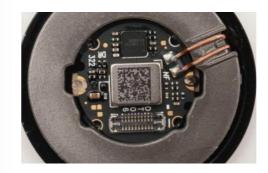
Model	BV-SW100
Laser Source	Semiconductor Laser
Laser Power	100W /200W (Optional)
Cooling Method	Full air-cooling/water-cooling
Positioning Method	Coaxial CCD automatic positioning
Control Method	PC control, temperature feedback, constant temperature welding, dual station
Air Source	0.4~0.6MPa (dry and clean air)
Operating Environment	Temperature 25±5°C, Humidity <60% (non-condensing)
Working Voltage	AC 220V/50Hz
Dimensions	1100×1100×1800mm

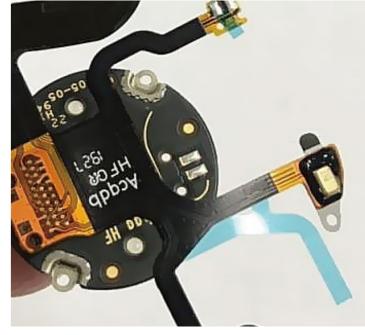
#### **Product Features**

- Dual-track Feeding System ensures continuous and stable material supply, eliminating downtime caused by material interruption.
- 2 High-precision CCD Positioning corrects solder joint locations in real time, effectively compensating for workpiece clamping deviations.
- Imported Precision Dispensing Controller guarantees accurate solder volume control (error ≤0.01mm), preventing defects caused by excess or insufficient solder.
- Closed-loop Temperature Control with real-time monitoring and customizable multi-stage profiles prevents overheating damage to sensitive electronic components.
- Dual-station Independent Operation enables simultaneous loading/unloading and welding, significantly improving overall efficiency while ensuring process stability and consistency.











# Multi-Axis Precision Laser Welding Station

## **Product description**

The Multi-Axis Laser Welding
Platform enables micron-precision welding of complex
components through synchronized multi-axis motion,
adaptive sensing, and
CAD-guided control. It solves
traditional limitations by
reaching inaccessible geometries and maintaining consistent accuracy with real-time
corrections.



Brand: BUVAuncom	Model: BV-MAW1500/2000/3000/6000
Working Voltage	AC 220V 50Hz/60Hz
Laser Power	1500W/2000W/3000W/6000W (Optional)
Positioning Method	Infrared Positioning, CCD Inspection
Supported Vector File Formats	Dwg、Dfx、Bmp、Jpg、Png、Tif、Pcx、Tag 、Gif、Plt
Stroke X/Y/Z-axis (C/A-axis Option	al) (mm) 500×300×400 (Customizable)

## **Product Application**

- High-Tech Industries
  Critical welding for aerospace and automotive manufacturing.
- Daily Use Products
  Suitable for home appliances, electronics, hardware, and other industries.
- Precision Product Welding
  Applicable to medical devices, watches, jewelry, new energy batteries, etc.









# Handheld Water-Cooled Laser Welding Machine



## **Product description**

Powered by a medium-low power fiber laser, this handheld welding system delivers exceptional flexibility through an ergonomic gun design. Its integrated air-cooling ensures stable operation while maintaining precise energy control for base material/filler wire melting. Combining portable operation with efficient thermal management, it's engineered for small-medium components, complex welding paths, and on-site repairs.

Brand: BUVAuncom	Model: BV-WW1200/1500/2000/3000
Working Voltage	AC 220V 50Hz/60Hz
Laser Power	1200W/1500W/2000W/3000W (Optional)
Fiber Optic Length	10m (Customizable)
Operating Temperature & Humidity	10~40°C; 30-70% RH (Non-condensing)

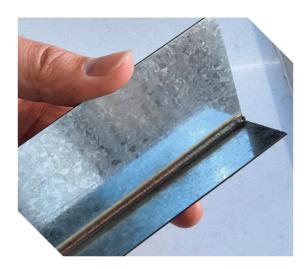
### **Product Application**

Applicable Industries

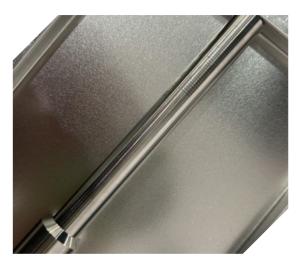
It supports stainless steel and carbon steel welding, suitable for various industries including manufacturing, construction, advertising, and more.

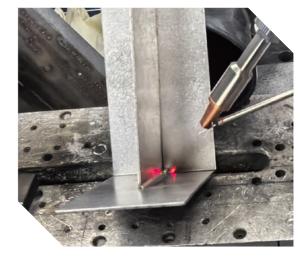
- Multiple Welding Modes Spot welding, seam welding, overlap welding, seal welding, fillet welding, inner/outer corner welding.
- **3** Application Scenarios

Sheet metal, molds, chassis, water tanks, kitchenware & sanitary products, hardware & lighting, billboards, doors & windows, household appliances, automotive parts.









## Handheld Air-Cooled Fiber Laser Welding Machine



## **Product description**

Featuring a medium-power fiber laser source and handheld operation, this air-cooled welding solution delivers precise energy control for base material and filler wire applications. Combining portability with efficient thermal management, it excels in small-to-medium workpiece processing, complex path welding, and on-site repair tasks across manufacturing and maintenance applications.

Brand: BUVAuncom	Model: BV-AW750/1200/1500/2000
Laser Power	750W/1200W/1500W/2000W (Optional)
Fiber Optic Length	10m (Customizable)
Operating Temperature	10~45°C
Working Voltage	AC 220V 50Hz/60Hz
Total Power	4.5kW

### **Product Application**

#### Suitable Materials

It supports stainless steel and carbon steel welding, suitable for various industries including manufacturing, construction, advertising and more.

## Welding Modes

Spot welding, seam welding, overlap welding, seal welding, fillet welding, inner/outer corner welding.

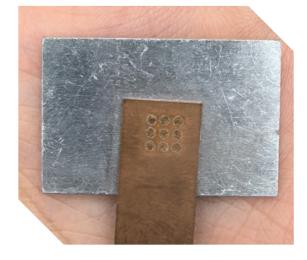
### Applications

Sheet metal, molds, chassis, water tanks, kitchen & sanitary products, hardware & lighting, billboards, doors & windows, home appliances, automotive parts.









# Fully Automated Fiber Laser Cutter with Integrated Exchange Table



## **Product description**

Featuring a twin-table system with automatic positioning and synchronized control, this machine enables simultaneous cutting and loading. Table exchange occurs in under 13 seconds, eliminating downtime and maximizing productivity through continuous operation.

Brand: BUVAuncom	Model: BV-3015CS
Laser Power	3kW-15kW
Positioning Accuracy	±0.03mm/m
Repeat Positioning Accuracy	±0.02mm
Working Voltage	AC 380V/50Hz
Operating Temperature	0°C-40°C
Work Table Size	3000x1500mm / 4000x1500mm / 6000x1500mm (Customizable)

## **Product Application**

**1** Industrial Manufacturing

Metal Processing: Cutting of carbon steel, stainless steel, and other metals for producing sheet metal parts and hardware components.

Automotive Manufacturing: Precision cutting of auto parts including body panels, chassis, and engine components.

2 High-End Equipment

Aerospace: Manufacturing and cutting of aircraft parts and components.













# High-Speed Tube & Sheet Integrated Fiber Laser Cutting Machine

## **Product description**

Powered by a high-power fiber laser source, this system utilizes dual processing units with precision CNC control to enable efficient switching and high-speed processing between sheet metal cutting and tube cutting. It retains the core advantages of fiber laser technology—high energy density, exceptional precision, and rapid speeds—while its integrated design solves the traditional pain points of operating separate machines for sheets and tubes. Ultimately, it delivers dual functionality in one system for continuous, high-speed production.

### **Product Application**

## General Machinery

Precision cutting of equipment frames/end covers (plates) and drive shafts/support columns (tubes). Dual-station design enhances productivity.

## **2** Steel Structure & Building Materials

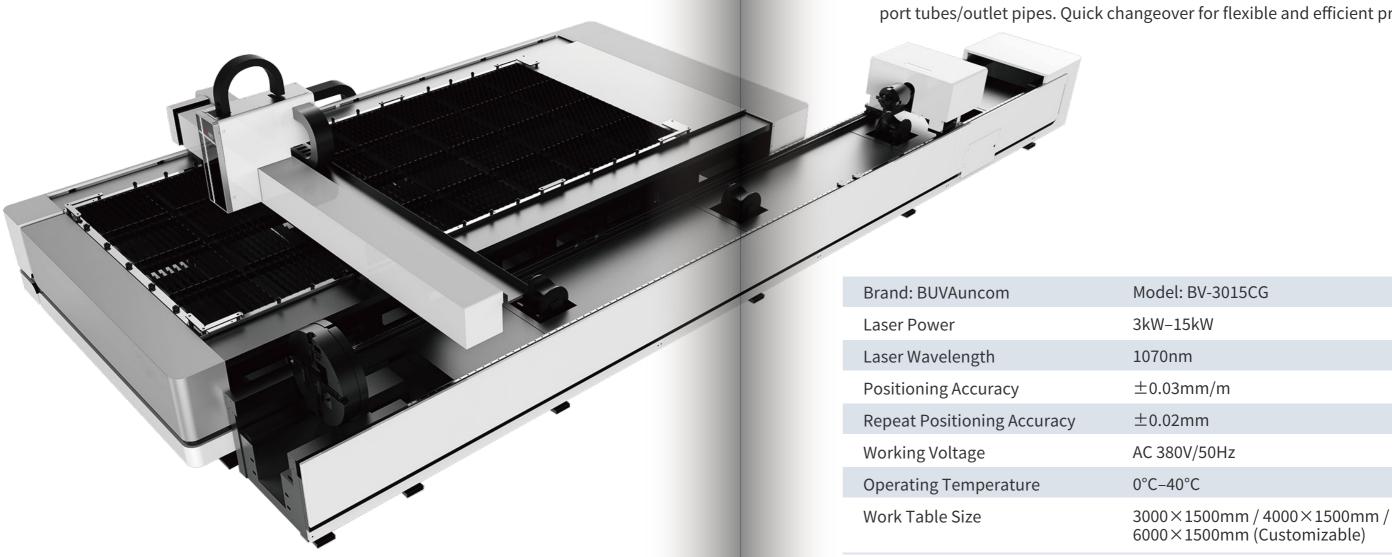
Efficient cutting of thick connecting plates/embedded parts and large-diameter support tubes/guardrail posts. High-speed processing with smooth, burr-free edges.

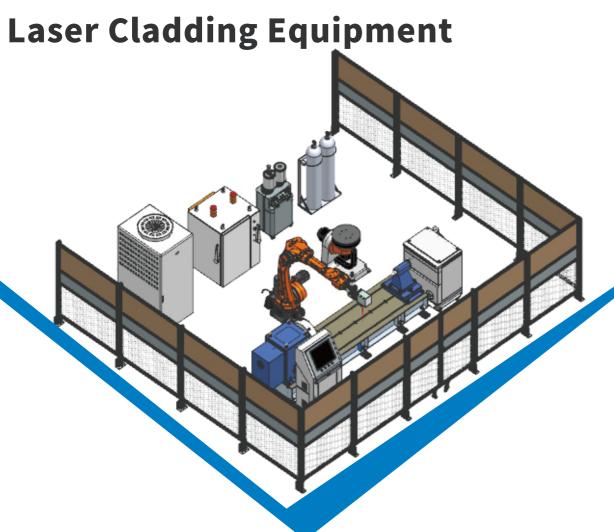
#### Automotive & Medical

High-precision cutting for chassis brackets/battery cases (plates) and clean exhaust pipes/surgical handle tubes (pipes). Accuracy up to  $\pm 0.03$ mm with nitrogen protection to prevent oxidation.

#### **6** Automotive & Medical

High-speed batch cutting of thin outer casings/trays and small-diameter support tubes/outlet pipes. Quick changeover for flexible and efficient production.





## **Product description**

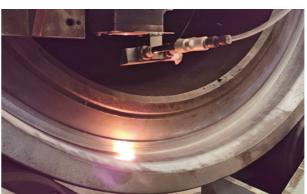
This surface modification and repair technique uses a high-energy laser beam to melt cladding materials (e.g., metal powder or wire) together with the substrate surface. The process creates a metallurgically bonded functional coating—not merely adhered—that enhances wear, corrosion, and heat resistance, or repairs defects such as wear and cracks.

## **Product Application**

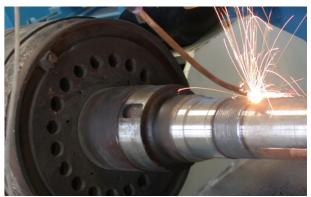
- 1 Laser cladding processing is available for part exteriors, inner holes, flat surfaces, and various complex contours.
- We provide laser cladding services for a wide range of products including plungers, rollers, valve cores, and more.
- Our equipment serves clients across multiple sectors, offering functionalities such as laser hardening, cladding, and alloying.



Crankshaft Gladding



Laser Quenching



**Bearing Cladding** 



Laser Quenching of Steam Turbine Generator Blades

Performance Requirements	Cladding Material Selection	Hardness	Typical Applications
Corrosion Resistance (Abrasion Resistance Not Required)	304/316/17-4	200-350HB	Replacement for Chrome Plating
Basic Corrosion Resistance   General Abrasion Resistance	JG-8A   JG-11	48-52HRC   53-57HRC	Alternative to Hard Chrome Plating e.g., Laminar Flow Rolls, Hydraulic Rods, and similar components
Corrosion Resistance   Heat Resistance (<1000°C)   General Abrasion Resistance	Incoloy® alloys (e.g., Inconel® 625)	25-30HRC	Boiler pipes, marine systems (corrosion resistance required), and similar environments
High Abrasion Resistance   Extreme Corrosion Resistance   Heat Resistance (>600°C)	Stellite® Alloy	28-50HRC	Marine, Power Systems, New Energy, and others

Portable Pulsed Fiber Laser Cleaning Machi<u>ne</u>

**Precision Cleaning** 

**Effortless Operation** 

**Eco-Efficient** 



## **Product description**

Powered by a miniaturized pulsed laser, this portable system delivers precise cleaning through instant laser-contaminant interaction. Its ultra-lightweight design enables flexible on-site operation. The technology utilizes high peak power to break contaminant bonds without substrate damage, making it ideal for localized applications such as rust removal, paint stripping, and artifact restoration.

Brand: BUVAuncom	Model: BV-PR100/200/300/500
Working Voltage	AC 220V 50Hz/60Hz
Laser Power	100W/200W/300W/500W (Optional)
Operating Temperature Ran	ge 5°C to 40°C / ≤80%
Laser Output Mode	Pulse Mode
Scanning Width (mm):	0-100 / 0-145 (Optional)
	Continuously adjustable, dual-axis, supports 9 scanning modes.

### **Product Application**

**Industrial Maintenance** 

On-site rust & deposit removal (valves, bearings, pipes). No disassembly. Non-destructive.

Precision Manufacturing

Degrease gears/sensors. Clean PCB residues. Scratch-free precision.

**3** Cultural Restoration

Remove rust from metals, stains from stone/artworks. Low-power. Chemical-free.

4 Field Service

Clean ships, turbines, steel structures. Portable. Weather-resistant.

Medical & Mold

Clear plastic residues & bloodstains. Substrate-safe. Zero residue.



Laser Coating Removal for Thermoses



Precision Surface Cleaning



Mold Oil & Residue Cleaning



Stone Surface Restoration



**Wood Surface Refinement** 



Laser Ablation Marking Removal

# Portable Fiber Laser Marking Machine



## **Product description**

This machine utilizes advanced laser technology and a highly integrated design, resulting in a compact and lightweight body. Equipped with an 8-core processor and a color touchscreen control system, it enables rapid focusing and high marking precision. Suitable for a wide range of metals and certain non-metallic materials, it is ideal for trademark engraving, barcode marking, and personalized graphic marking.

Brand: BUVAuncom	Model: BV-FM20H/30H/50H
Working Voltage	AC 220V 50Hz/60Hz or Li-battery (Optional)
Marking Area	100x100mm, 150x150mm, 175x175mm (Optional)
Line Width	0.03mm
Repetition Positioning Accuracy	0.01mm
Laser Power	20W/30W/50W (Optional)
Positioning Method	Red Light Positioning & Focusing

#### **Product Application**

#### **Industrial Parts**

Trace codes (QR/Serial) on motor covers, valves & hardware. On-site re-marking. Wear-resistant marks.

#### Electronics

Micro model/LOGO on chips, connectors, earbud cases. ≤0.1mm spot. Fits tiny parts.

#### Consumer Goods

Brand marks on tools (wrenches, blades). Engrave leather/bag hardware. Portable operation.

#### **Medical Instruments**

ID engraving (scissors, tweezers) for traceability. No chemicals. Sterilization-proof.

#### Custom Crafts

Engraved patterns on jewelry (necklaces, badges). Custom text on gifts (cups, USBs). On-site service available.



Automotive Generator Housing Marking



**Plastic Marking** 



Mouse Marking



**Ceramic Marking** 



Jade Marking



**Laptop Marking** 

Buva Technology Co., Ltd.

## **OUR SPIRIT:**

If you win, you toast to each other, if you lose, you fight to save

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Website: www.buvatech.com



Our service

#### **Long-Term Warranty**

Laser Source: 2 Years | Complete Machine:

1 Year

#### **Lifetime Maintenance**

Lifetime repair service with only cost charges for replacement parts

## **Lifetime Value-Added Services**

Free technical consulting, process optimization and software upgrades

## 24/7 Support

Round-the-clock online technical support

Complimentary Training Professional post-sale technical training provided