

## Robot200 Laser Welding Machine For Mold

### Introduction:

The Robot200 Laser Welding For Mold Repairing was originally designed for mold industry for repairing precision molds, such as mold of digital products, mobile phone, toy, automobile and motorcycle. By applying suitable soldering wires, it is possible to fill the crack or blowholes and reuse the mold which saves production cost and improves working efficiency significantly. General laser mold welder also can be used in metal sheet stitching welding, pipe/ tube conjunction welding, and manufacturing of sensor, level switch and fine auto parts, etc.

### Features:

1. Ceramic converging cavity made in UK: corrosion resistant and high temperature resistant, with 8-10 years service life. The life of xenon lamp bears more than 8 million times flashing.
2. Most advanced light shielding system can eliminate the irritation to eyes by laser during working.
3. The laser head can rotate for 360°, lift up and down, move left and right, go forward and backward
4. The parameters are controlled by intelligent remote controller which is simple and convenient for the operator
5. The work bench can be lifted, and moved in three dimensions.
6. The size of light spot can be adjusted accordingly and automatically.

### Applicable materials:

Materials that can be welded are extensive: cold work alloy steel, hot work alloy steel, nickel tool steel, steel alloy, high tenacity aluminum alloy, etc. Other metals like gold, silver, brass, aluminum-magnesium alloy, titanium, and platinum are also applicable.

### Technical Parameters:

Robot200 Laser Welder For Mold
SPECIFICATION
Max.output laser power: 200W
Laser wave-length: Nd:YAG 1064nm
Single pulse energy: 80J
Pulse width: 0.3 – 25ms
Welding frequency: 0.1 - 50Hz
Adjustable facula size: 0.2-3mm
Diameter of welding wires: 0.2-2.5mm
Worktable running distance: XYZ=300*200mm*250mm(Manually adjustable axes X and Y, Motorised adjustable Z axis )
Focus Lens Length: 80mm/100mm/120mm
Worktable Bench dimension: 430mm*300mm
Worktable Bench Load: 200Kg
Control system: Micro-computer
Observing system: Microscope,(360 degree rotation)
Protection Gas: Argon
Power consumed: ≤4KW
Cooling system: Water Cooling System

Electrical source: 3 Phase 380V±10%/50Hz, 9KW  
 Machine Dimension: 1175\*590\*1250mm

**Brief Introduction**

The ROBOT200 Laser welding system for mold repairing is especially designed for the mold industry, and it is applied to repair of precision molds, for example, digital products, handsets, toys, autos, and motors mold making and modeling. The mold repair can make full use of the original molds, which will greatly reduce the production cost, and improve the working efficiency. The technology can also be applied to modification of mold design or size, thus reducing the development cycle of the product

**Typical Application**

It is applicable to metallic materials such as cold working high alloy steel, hot forging high alloy steel, nickel tool steel, high grade steel, copper alloy, beryllium steel, and high flexibility aluminum alloy. The remote controller or the touch operation panel can be used to select the laser output power, frequency, pulse width and other parameters. The moving speed of the workbench can be set to manipulate the workbench moving, so that the welding parameters match the welding requirements, and thus producing optimal effect of smooth welding joints and points.

**Warranty Period**

One year from the date the machine arrives the destination Except consumable part of the lamp and damage artificially. The seller is responsible for offer free fittings in the warranty period (the buyer has to send the damaged fitting to seller.)

The artificial damage in the warranty period and damage after warranty period, the seller offers paid service. If the customer needs the engineer to supply the service oversea, all the expends will be paid by the customer.



## Robot200 Laser Welding Machine for Jewelry

### SPECIFICATION

#### Technical parameters

Laser medium: 1.064nm

Max. laser power: 200W

Laser wave-length: 1064nm

Single pulse energy: 100J

Welding depth: 0.1 - 3.5mm(silver, gold and so on)

Welding wire: 0.2mm, 0.4mm, 0.6mm, 0.8mm and more

Pulse width: 0.3 - 20ms

Welding frequency: 0.5 - 30Hz

Adjustable facula size: 0.1-3mm

Control system: micro-computer ,CCD

Power consumed: 4-6KW

Electrical source: 220V±10%/50Hz/30A

Packing size: **990\*620\*1400mm 510\*590\*940mm**

### Functions and advantages

#### Introduction

This welder is specially developed for laser welding of jewelry used in perforating and spot welding of gold and silver jewelry. The laser spot welding is an important aspect of laser process technology application. The spot welding process is thermal conduction, i.e. the laser radiation heats the surface of work piece, and the surface heat diffuses to the interior through thermal conduction and melts the work piece by controlling the width, energy, peak power and repeating frequency of laser pulse to form specific molten pool. Because of its unique advantage, it is widely used in the process of gold and silver jewelry and welding of mini and small parts.

The surface of the metal will be changed by the laser, it has been heated and conducted to the deeper of metal rapidly, and the surface will be melted when the consistency of laser power is enough, some parts is momentary vaped for the high consistency ,and it is come into being the weld crater.

The laser welding compares with other welding craft can realize the very many material welding, compares has the superiority, welds the component thermal deformation to be small, the attachment quality is high. The laser welding superiority in with can realize partially the very small scope heating characteristic, widely uses with the precision component like jewelry, the battery, the automobile industry, aviation industry some other applications and so on.

#### Features

- The energy, pulse width, frequency and light spot size can be adjusted in a large range to realize different welding effects. The parameters are adjusted by the lever in the seal cavity, which is simple and highly efficient.
- Ceramic converging cavity is imported from the Britain. It is corrosion resistant and high

temperature resistant, and has 8-10 years service life. The life of xenon lamp is more than 8 million times.

- Use the most advanced light shielding system to eliminate the irritation to eyes by light during working.
- Able to work for 24 hours continuously; stable performance; free of maintenance in 10,000 hours.
- Human-based design accords with ergonomics, avoiding fatigue after long time working.

**Advantage**

High speed, high efficiency, deep, small deformation, small heat effect area, high welding quality, pollution free welding spot, environmental friendly.

**Application**

Widely used in aviation, aerospace, sports products, jewelry, golf head, medical instrument, titanium alloy denture, instrument, electronics, machinery, automobile, etc, especially for the perforating of gold and silver jewelry, spot welding, repairing, inlay and welding of claw.

**Warranty Period**

One year from the date the machine arrives the destination Except consumable part of the lamp and damage artificially. The seller is responsible for offer free fittings in the warranty period (the buyer has to send the damaged fitting to seller.)

The artificial damage in the warranty period and damage after warranty period, the seller offers paid service. If the customer needs the engineer to supply the service oversea, all the expends will be paid by the customer.



## Service Promise:

We persist in customer-oriented strategy to provide customers with satisfactory pre-sale and after-sale service of training and maintenance etc.

### 1. Pre-sale Service

- . Before signing the contract, our company will offer various proposals of production process, the technical consultation, testing samples, selection of equipment models etc

### 2. Free training for clients' staff in our factory on:

- . Common operation of the machine & software;
- . Basic maintenance and cleaning;
- . Solutions to common hardware & software malfunction;

### 3. On-site Technical Support:

- . If clients need on-site installation assistance, clients shall bear the relevant costs including visa, hotel, transportation and accommodation.

### 4. Warranty:

- . One year guarantee period for the whole machine.
- . Free replacement spare parts in warranty period, freight on your side.
- . Software is upgraded for free within one year.

### 5. Others:

- . Free technical consulting.
- . Response to customer's FAQ within 24 hours.
- . Users also enjoy the life-long service after warranty period, relevant expenses on customers' account.

## Product Quality Standards: ISO9001 2000

We established quality management system to strictly control and manage the quality of product according to the ISO9001 standard, so as to manufacture products that can reach the customers' expectation.

After signing the contract, we should customize, manufacture. After the equipment is fully tested, it will be shipped to customer within the contracted time.

## Contact details

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**ISO9001**

**CE**



**Certificate**