

## GS-BDHJ2000 Plate joint Laser Welding machine

### Product features

The products are widely used in steel industry —— strip rolling, acid pickling, coating, annealing and other fields. Its main function is welding automatically joints in the production of plate strip.

- 1, Laser cutting system cut automatically the head part and the tail part.
- 2, Synchronous servo system to complete the lead, with the end of the automatic splicing
- 3, Laser automatic welding system to complete the dare seam.
- 4, The two time synchronous servo system is in the middle of the system.
- 5, Automatic measurement of strip width and thickness.
- 6, Automatic clamping system to complete the initial positioning of the plate belt.
- 7, SIEMENS multi axis motion control system using SIMOTION.
- 8, Fully automatic production equipment for highly integrated optical, mechanical, electrical, hydraulic, pneumatic and cooling technologies.
- 9, After welding, the broken belt rate can be guaranteed to be 1/1000.



### Specifications:

Products for the T type structure, applicable to the board with a width of 1500MM, the host travel 3500MM, the maximum moving speed of 10 m/min, the main operating speed of the machine tool for m/min 0.5-12 adjustable.

Model	GS-BDHJ2000
structure	T type
Board width	1500 mm
host travel	3500 mm

Maximum moving speed	10 m/min
speed of the machine tool	0.5-12 m/min

1, Laser welding system Rofin high power laser system and the laser cutting path etc.

2, SIEMENS SIMOTION motion control system.

3, Monitoring system

### Product Advantages:

1. Highly automatic level: adopting auto preheat machine, robotic hand for loading and unloading, four-stations auto turn plate.

2. High quality: with auto pressing device, effectively reduce welding deformation, highly improve the production efficiency and quality.

3. Highly integration: integrated the auto preheat machine, melding main machine and unloading conveyor together.

4. Without space limitation, could weld small part and the parts of close interval.

5. Non-contact welding, greatly reduce the deformation and wear of the appliance.

6. Can weld various materials, and even any two kinds of various different textures and different natures can be welded well.

### Laser welding application

Laser welding is mainly used in automobile, tools, home appliance, steel industry and others, forexample nest gear of transmission, flying wheel, airbag, rock arm, muffler, silicon oil shockabsorber, hydraulic torque converter, wood saw blade, diamond saw blade, radiator of water.

### CO2 Laser Welding Technique

welding depth(mm)	Laser Power(W)	welding line speed(m/min)
2.5	2000-2500	1.6
3.0	2300-2500	1.5
3.5	2500-2800	1.4
4.0	2800-3000	1.3
4.5	3000-3200	1-1.2
Remark:transmission gears can be welded twice to reduce deformation		
specification(mm)	Laser Power(W)	Welding line speed(m/min)

Φ105-Φ180	800-1200	1.8-2.5
Φ230-Φ350	1000-1500	1.5-2.0
>Φ350	1300-1700	1.2-1.8

Note:For diamond saw blade welding,defocusing amount is generally negative defocus 0.5mm-1mm or so,for one side welding laser power can be increase into 2000w for welding,welding depth can be up to 2--4mm;Welding protective gas is generally ordinary argon or Nitrogen gas(Ar N2),blowing gas is commonly 8 L/min.

## Our service

### Technical Support

Guided with our company culture of "Grape market with service" and with the service idea for getting users' satisfaction as well as customer's profit, our company set up special technical team for laser heat treatment cladding, welding, cutting, punching appliance with strategic agreement signed with IPG, LASERLINE\DILAS Germany, ABB Robot Switzerland, KUKA Robot Switzerland, Material Colleague of Tsinghua University, aviation material institution, material colleague of Wuhan university of science and technology to provide long term technical support for our users.

We're promised to provide comprehensive technical support for customer and our technique process database.

- 1) Specified technical train and instruction to ensure master of operation
- 2) Process and technical instruction for typical work piece to master the basic selection of parameter for the laser processing
- 3) Laser powder company list for users
- 4) Comprehensive technique support for new technique development by customer
- 5) Technique live service.