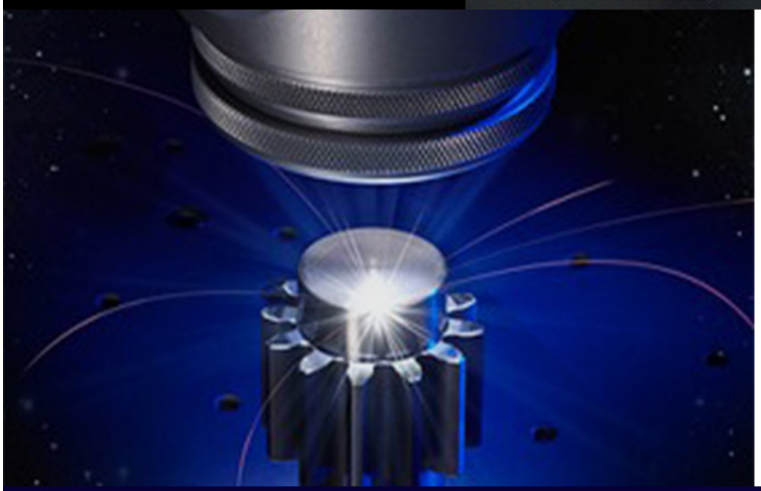
Novin Laser Saba

Jewelry Laser Welding

Application

Advantage

Specification



Laser for industrial material processing

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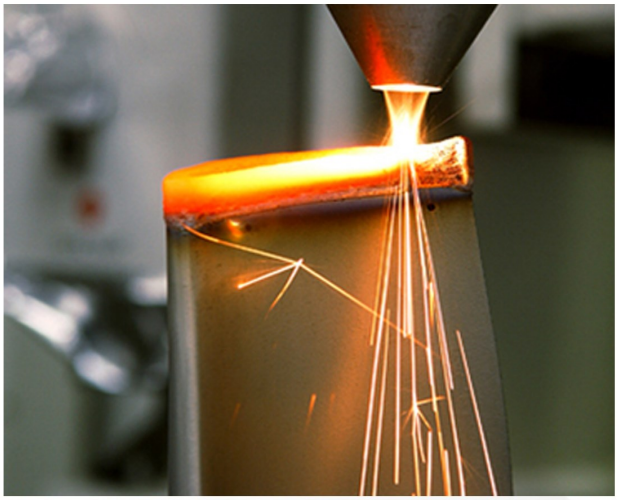
Laser Welding Solution

Laser welding uses an amplified beam of light with a specific wavelength to perform the welding process with the almost invisible seam in a matter of seconds. The heat of the laser beam creates a very small area that changes the molecular structure of similar or dissimilar metals at the boiling point, allowing the two materials to become an alloy there. This process is mainly used in tool welding, jewelry welding, tooth welding, watch repair, glasses welding, sensor welding, medical tool welding, and other high precision welding purposes. Laser welder can weld various metal materials such as gold, silver, platinum, titanium, palladium, etc. One of the main advantages of laser welding is that it offers a high level of accuracy and control. The fact that laser technology is accurate means that it can be used to weld the smallest parts together without damaging them.



Application

Welding precious and non-precious jewelry metals
Adding Metal to jewelry pieces
Bonding dissimilar metal
Repairing the micro industrial-medical device
Welding porosity or cracks using filler material
Repairing antique jewelry
Repairing watches, eye-glasses , dental & orthodontic appliances

Material

Gold
Silver
Steel alloy
Nickel
Copper alloy
Brass
Titanium
Carbon steel
Aluminum alloy
other metal materials

Advantage

It is LASER. Isn't that enough?
High-accuracy welding
High-speed welding
Low operation cost
Compact setup
Easy to operate
Microscopic weld joints
Customizable welds
Weld-on any metal

Novin Laser Saba

Specification

Jewelry laser welding can be used to fill porosity, re-tip platinum or gold prong settings, repair bezel settings, repair/resize rings and bracelets without removing stones, and correct manufacturing defects. This system is perfectly suited for Jewelers and also for technicians intending to simply bond metal to metal. Because the heat generated remains localized, operators can handle or fixture items with their fingers, laser welding small areas with pin-point accuracy without causing any harm to the operator's fingers or hands. The laser used in this system is a solid-state laser type "Nd: YAG" using a flash lamp pumping. The spot size, energy, repetition of laser pulse Frequency and other parameters can be controlled through system software for best performance.

Type of Laser	Flash lamp Nd:YAG Laser
Laser power	150W
Laser wavelength	1064nm
Mode of Operation	Pulsed
Welding frequency	≤20Hz
Pulse energy	≤40j @1Hz
Repetition Rate	1-20 Hz
Pulse Duration	0.5-8 ms
Spot Size	0.2 –3 mm
Power supply	AC220V ± 10% 50 / 60HZ
Cooling system	water cooling

- Classe IV Laser
- Redpoint fast positioning, CCD display, microscope optional
- Easy parameter settings
- High precision
- Microscopic weld joints
- simple and quick welding parameters Setting
- Customizable welds
- High-efficiency components
- High-efficiency optics to enable a higher average power output
- Low noise and no pollution.
- Advanced cooling system

Support

Our engineers select the components of the system according to your application. In the initial installation and training phase, our technicians exclusively optimize your system parameters to maximize your productivity and provide complete training for your operators. Our support team can help you to achieve the best results and to solve your problems. we are aimed to ensure that you get the most out of your investment in laser technology.

So, WE ARE HERE TO HELP YOU.

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