

## → Company Profile

**Perfect Laser Co., Ltd. (China)** founded in 1995, located in the centre of "China Optic Valley" - Wuhan city. Occupied with 42 acreage ground, including 3000 m<sup>2</sup> R&D building and **6000** m<sup>2</sup> production area, we have more than 180 employee, 80% of which are with bachelor degree and 3 of them with doctor degree. To be a leading high technology enterprise, **Perfect Laser** commits in research and exploitation of laser technology and integrated equipment.



## **Clients All Over The World:**

Executed by reliable quality and reasonable price, *Perfect Laser* products got favorable sales success and outstanding reputation and popular in more than 30 counties and areas. Our products were sold to a great deal of countries form USA, German, Korea, Singapore, Poland, Turkey, Malaysia, India, Brazil, Saudi Arabia, Syria to worldwide.



## **Highly Specialized Team**

Based on a highly specialized & internationalized term and technology, *Perfect Laser* accomplished the whole processes from software exploitation, hardware design, and system detecting to technical supporting. We applied for 63 national patents, and many of our technical achievement & technical index are in the advanced position in global range.

## **Outstanding Quality, Global Service**

"Outstanding quality, global service". The whole staff of *Perfect Laser* act according to this concept with full enthusiasm and constant innovative spirit. Implement with the strategy of global sales, internationalized purchasing and internationalized technology, we established a stable platform to our long-term development. Stick with an open mind, *Perfect Laser* is willing to go forward hand in hand with global enterprises. Keeping forward looking, *Perfect Laser* will create bright future in phase with the world, with the times, and with clients' requirement.



### **Classify Laser Marker**

Laser marking technology is using laser beam to make permanent marks on the surface of all kinds of different materials. The marking can reveal the substance in-depth through evaporating the substance on the surface, or make imprints "engraved" after chemical or physical change of the substance on the surface happen because of the energy of the ray, or make figures and characters we need after the beam burns part of the substance. According to method of work, it can be divided into 5 kinds:

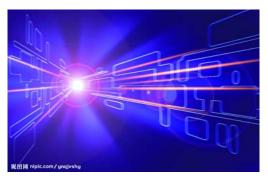
| 5 k              | Kinds of Laser Marker | Feature                                       | Laser Marker Working Principle  |
|------------------|-----------------------|---|---|
| ≻                | Fiber Laser Marker    | • Free maintained, Fine Marking Air           | Fiber Laser Marker  |
|                  |                       | cooling, Small Size                           | It uses fiber laser. Good beam quality, high electro-optical conversion efficiency                    |
| $\triangleright$ | Diode End-Pump        | Free maintained.                              | Diode Laser Marker (Diode Side-Pump Laser Marker, Diode End-Pump Laser Marker)                        |
|                  | Laser Marker          | <ul> <li>Excellent Marking effect</li> </ul>  | It takes semiconductor laser (with wave-length 808nm) diode pump Nd:YAG as medium .The                |
|                  |                       | <ul> <li>No consumables</li> </ul>            | medium produces a lot of reverse particles to discharge laser, the wave-length is 1064nm with         |
| ≻                | Diode Side-Pump       | Free maintained                               | strong pulse under the function of Q-switch so the efficiency of the electron-light transformation is |
|                  | Laser Marker          | <ul> <li>Excellent Marking effect</li> </ul>  | high. Under the control of the computer the resonance mirror can change the path of the laser         |
|                  |                       | No consumables                                | beam to accomplish automatic marking.   |
|                  |                       |   | VAC Loren Durren Longen Marting is a solid longer reaching with inferred light whose we where the st  |
|                  | YAG Lamp-Pump         | Economical Price                              | YAG Lamp-Pump Laser Marker is a solid laser machine with infrared light whose wavelength of           |
|                  | Laser Marker          | <ul> <li>Need to change Laser Lamp</li> </ul> | frequency band is 1064nm.It uses krypton lamp as energy source (driving source).As a medium           |
|                  |                       | (Consumables) and adjust the                  | for producing laser, Nd:YAG can send out special wavelength to let effective substance's level of     |
|                  |                       | laser optic path every 2-3 month              | energy jump higher so that it can let off laser.  |
|                  |                       |   | After the energy of laser is strengthened it will form a laser beam to process the material. The path |
|                  |                       |   | of the laser beam will be changed through the resonance mirror controlled by computer so as to        |
|                  |                       |   | accomplish automatic marking.   |
| ≻                | CO2 Laser Marker      | Economical Price                              | Co2 Laser Marker is a gas laser machine whose frequency band wave length of infrared light is         |
|                  |                       | • Need to change Laser Tube                   | 10.64um. CO2 gas is filled in the discharge tube as the medium to produce laser. When high            |
|                  |                       | (Consumables) and adjust the                  | voltage is added to the electrode, it will produce glow discharge in the discharge tube and then the  |
|                  |                       | laser optic path every 2-3 month              | gas molecule will discharge laser. After the energy of laser is strengthened, it will form the laser  |
|                  |                       |   | beams to process the materials. Computer-controlled resonance mirror can change the path of the       |
|                  |                       |   | laser beams so that automatic marking can be accomplished.  |

### Feature of Laser Marker

| Working Principal  | Advantages  | Environmental safe and  |
|--|---|---|
| Focus the laser to form a thin<br>high-energy laser beam, like<br>reamer, wipe off materials on<br>the surface point-by-point,<br>simultaneously laser beam<br>moves quickly by the original<br>track and form the marking sign. | The advantage lies on that the marking<br>processing is non-contact process, and<br>produce without machinery extrusion or<br>stress, therefore it won't damage<br>processed materials. As laser beam is<br>very small after focus, hot area is little,<br>processing is fine, and so it can process<br>material that common techniques can't<br>realize. | clean processing<br>Laser marking comply with the<br>environmental protection requirement<br>of all countries, it is a safe and clean<br>processing method, so clients don't<br>need to worry about export limit<br>caused by silk-screen, erosion and<br>other techniques. |

### Comparison between Laser Marking and Other Marking Method

| Marking            | Performance | Alteration of Figures and | Consumables     |
|--------------------|-------------|---------------------------|-----------------|
| Techniques         |             | Characters                |                 |
| Laser Marking      | Good        | Alter random              | Needless        |
| Laser Mask marking | Very good   | Hard to alter             | Need            |
| Chemical etching   | Good        | Hard to alter             | Need            |
| Inkjet printing    | Worse       | Easy to alter             | Need, expensive |
| Mechanism pressing | Worse       | Hard to alter             | Need            |



*Perfect Laser's* marking machine has characters of firmness, durability and utility, can provide complete and systemic marking applications for clients.

### How to choose your Laser Marker System / Model Classifying Principle (According to Different Materials)

According to features of material absorbing of laser, the laser marker can be classified two types: YAG laser marking machine

| YAG type (Material uses YAG laser)                                | CO2 type (Material uses CO2 laser)                          |
|---|---|
| • Common metals and alloy: iron, cuprum, aluminum,                | • PVC: tubing, wire insulating layer, Air-proof pieces.     |
| magnesium, zinc and all metals.                                   |   |
| • Singularity metals and alloy: gold, silver, titanium, platinum. | ABS: electric appliance outer cover, daily necessities.     |
| <ul> <li>Metal oxide: applied to various metal oxide.</li> </ul>  | Acrylic: transparency material, instrument watchcase.       |
| • Special surface treatment: phosphide, aluminum anodal,          | Bullet-proof Glue: high anti-flush transparency products.   |
| electroplating surface.   |   |
| Crystal: crystal engraving.                                       | • Unsaturated polyester: dope, decoration, plate, fastener. |
| • ABS: electric appliance outer cover, daily necessities.         | Polyurethane: tread, leatherette, paint.                    |
| • Printing ink: diaphanous press-key, printing products.          | • Epoxy Colophony: electron element encapsulation,          |
|   | insulating layer.   |
| • Epoxy Colophony: electron element encapsulation,                | Glass: glass surface.                                       |
| insulating layer.   |   |

### and Co<sup>2</sup> laser marking machine. Clients can choose different laser marker according to the material features.

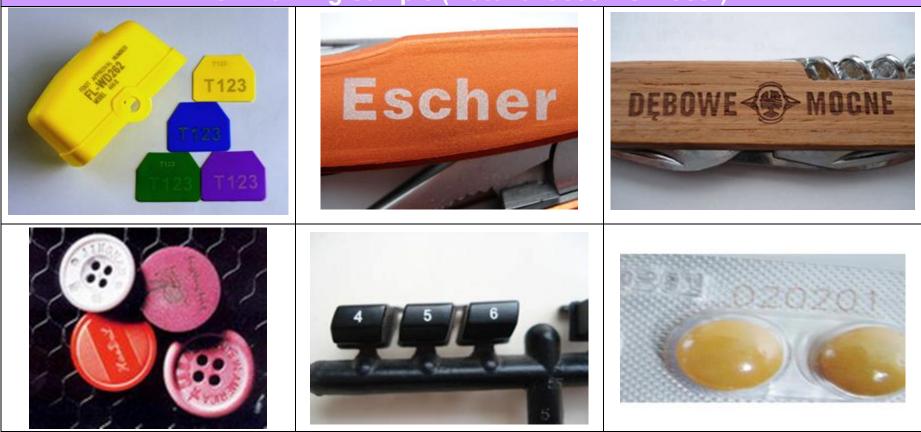
### Note:

1. Above classification is only for reference. Since certain materials can apply to these both YAG and CO2 lasers. Some materials have complex characters, it's not suitable for classify here.

2. Base on above reasons, it is preferred that you send your products to us, and we can choose suitable models for you through testing on your materials.



## CO2 Marking Sample (Material uses CO2 laser)



| YAG Laser   | YAG Laser  | Diode Laser     | Diode Laser      | Diode Laser     | Diode Laser      | Co2 Laser        | Co2 Laser       | Fiber Laser   |
|-------------|------------|-----------------|------------------|-----------------|------------------|------------------|-----------------|---------------|
| PEDB-       | PEDB-      | <b>PEDB-300</b> | PEDB-            | <b>PEDB-350</b> | PEDB-            | PEDB-            | PEDB-C60A       | PEDB-400      |
| 100/200     | 150/250    | Planar Type     | 300S             | Planar Type     | 350S             | C10/C30/C60      | CO2             | Fiber Laser   |
| Planar Type | Planar +   | Diode           | Planar +         | Diode           | Planar +         | CO2 Laser Marker | Laser Marker    | Marker        |
| YAG Laser   | Rotary     | Side-Pump       | Rotary Type      | End-Pumped      | Rotary Type      |                  |                 |               |
| Marker:     | Type YAG   | Laser Marker    | Diode            | Laser Marker    | Diode            |                  |                 |               |
|             | Laser      |                 | Side-Pump        |                 | End-Pumped       |                  |                 |               |
|             | Marker     |                 | Laser Marker     |                 | Laser Marker     |                  |                 |               |
| YAG laser   | YAG laser  | Diode laser     | Diode laser      | Diode laser     | Diode laser      | CO2 laser        | CO2 laser       | Fiber laser   |
| wavelength  | wavelength | wavelength      | wavelength       | wavelength      | wavelength       | wavelength       | wavelength      | wavelength    |
| 1064nm;     | 1064nm;    | 1064nm;         | 1064nm;          | 1064nm;         | 1064nm;          | 10.64nm;         | 10.64nm;        | 1070nm;       |
| water       | water      | water cooled;   | water cooled;    | water cooled;   | water cooled;    | water cooled;    | water cooled;   | air cooled;   |
| cooled;     | cooled;    | single phase;   | single phase;    | single phase;   | single phase;    | single phase;    | single phase;   | single phase; |
| fast-speed  | fast-speed | fast-speed &    | fast-speed &     | fast-speed &    | fast-speed &     | fast-speed       | fast-speed      | fast-speed &  |
| marking;    | marking;   | high-precisio   | high-precision   | high-precisio   | high-precision   | marking;         | marking;        | high-precisio |
| Krypton     | Krypton    | n marking;      | marking;         | n marking;      | marking;         | equip Metal RF   | equip Glass     | n marking;    |
| Lamp life:  | Lamp life: | use assembly    | use assembly     | use original    | use original     | CO2 laser tube   | CO2             | no            |
| 600-800     | 600-800    | imported        | imported         | imported        | imported         | (can be refilled | laser tube life | consumables;  |
| hours;      | hours;     | diode, life     | diode, life time | diode,          | diode, life time | with CO2 gas);   | 3,000.00 hours  | Laser power   |
| Q-switched  | Q-switched | time            | 2-3 years;       | life time       | 2-3 years;       | Laser power 30W; | (need           | 10W/20W;      |
| 50W power;  | 50W power; | 2-3 years;      | Q-switched       | 2-3 years;      | Q-switched       | Planar Type      | replacing);     | Small Size    |
|             |            | Q-switched      | 50W power;       | Q-switched      | 50W power;       | CO2 Laser Marker | Laser power     | Fiber Laser   |
|             |            | 50W power;      |                  | 50W power;      |                  |                  | 60W;            | Marker        |
|             |            |                 |                  |                 |                  |                  | Planar Type     |               |
|             |            |                 |                  |                 |                  |                  | CO2 Laser       |               |

Marker

| Can do        | Can do both   | Can do         | Can do          | Can mark on    | Can do          |        |        | Can mark on    |
|---------------|---------------|----------------|-----------------|----------------|-----------------|--------|--------|----------------|
| planar        | planar and    | planar         | planar+ rotary  | most kinds of  | planar+ rotary  |        |        | most kinds of  |
| marking on    | rotary        | marking on     | marking on      | metal and      | marking on      |        |        | metal and      |
| most kinds    | marking on    | most kinds of  | most kinds of   | alloys, such   | most kinds of   |        |        | alloys, such   |
| of metal and  | most kinds    | metal and      | metal and       | as steel,      | metal and       |        |        | as steel,      |
| alloys, such  | of metal and  | alloys, such   | alloys, such as | stainless      | alloys, such as |        |        | stainless      |
| as steel,     | alloys, such  | as steel,      | steel,          | steel, iron,   | steel,          |        |        | steel, iron,   |
| stainless     | as steel,     | stainless      | stainless       | Aluminum,      | stainless       |        |        | Aluminum,      |
| steel, iron,  | stainless     | steel, iron,   | steel, iron,    | gold, silver,  | steel, iron,    |        |        | gold, silver,  |
| Aluminum,     | steel, iron,  | Aluminum,      | Aluminum,       | copper,        | Aluminum,       |        |        | copper,        |
| gold, silver, | Aluminum,     | gold, silver,  | gold, silver,   | brass.         | gold, silver,   |        |        | brass.         |
| copper,       | gold, silver, | copper,        | copper, brass.  |                | copper, brass.  |        |        |                |
| brass         | copper,       | brass.         |                 |                |                 |        |        |                |
|               | brass         |                | Can mark on     |                | Can mark on     | cannot | cannot |                |
|               |               |                | some hard       | Can mark on    | some hard       |        |        | Can mark on    |
|               |               | Can mark on    | plastic and     | some hard      | plastic and     |        |        | hard plastic   |
|               |               | some hard      | non-metallic    | plastic and    | some            |        |        | and            |
|               |               | plastic and    | materials,      | non-metallic   | non-metallic    |        |        | non-metallic   |
|               |               | non-metallic   | such as hard    | materials,     | materials,      |        |        | materials,     |
|               |               | materials,     | plastic, organ  | such as hard   |                 |        |        | such as hard   |
|               |               | such as hard   | glass, etc.     | plastic, organ |                 |        |        | plastic, organ |
|               |               | alastia suman  |                 | glass, etc.    |                 |        |        | glass, etc     |
|               |               | plastic, organ |                 | giass, etc.    |                 |        |        | giass, cic     |
|               |               | glass, etc.    |                 | giass, etc.    |                 |        |        | giass, etc     |
|               |               |                |                 | giass, etc.    |                 |        |        | giass, etc     |

| Can mark on   | Can mark on   | Especially for | Especially for | Especially for | Especially for | Can mark on many     | Can mark on      | Specially for  |
|---------------|---------------|----------------|----------------|----------------|----------------|----------------------|------------------|----------------|
| some          | some hard     | marking        | marking high   | marking high   | marking some   | kinds of             | many kinds of    | marking high   |
| nonmetallic   | plastic and   | some high      | accuracy       | accuracy       | high accuracy  | non-metallic         | non-metallic     | accuracy       |
| materials,    | some          | accuracy       | parts, such as | parts, such as | parts, such as | materials, such as   | materials, such  | parts, such as |
| such as hard  | nonmetallic   | parts, such as | keyboard,      | keyboard,      | keyboard,      | plastic, wood,       | as plastic,      | keyboard,      |
| plastic,      | materials,    | keyboard,      | screws,        | screws,        | screws,        | paper, acrylic,      | wood, paper,     | screws,        |
| organ glass,  | such as hard  | electronic     | electronic     | electronic     | electronic     | bamboo, cloths,      | acrylic,         | electronic     |
| etc.          | plastic,      | components,    | components,    | components,    | components,    | fabrics, shoes, etc. | bamboo,          | components,    |
|               | organ glass,  | circuit board, | circuit board, | circuit board, | circuit board, |                      | cloths, fabrics, | circuit board, |
|               | etc.          | jewelry, etc.  | jewelry, etc.  | jewelry, etc.  | jewelry, etc.  |                      | shoes, etc       | jewelry, etc.  |
|               |               |                |                |                |                |                      |                  |                |
|               |               |                |                |                |                |                      |                  |                |
|               |               |                |                |                |                |                      |                  |                |
| Can mark      | Can mark      | Can mark       | Can mark       | Can mark       | Can mark       | Can mark letters     | Can mark         | Can mark       |
| letters and   | letters and   | letters and    | letters and    | letters and    | letters and    | and characters in    | letters and      | letters and    |
| characters in | characters in | characters in  | characters in  | characters in  | characters in  | your language, the   | characters in    | characters in  |
| your          | your          | your           | your           | your           | your           | numbers, serial      | your language,   | your           |
| language,     | language,     | language,      | language,      | language, the  | language, the  | numbers, high        | the numbers,     | language, the  |
| serial        | serial        | serial         | serial         | numbers,       | numbers,       | quality graphics,    | serial numbers,  | numbers,       |
| numbers,      | numbers,      | numbers,       | numbers, high  | serial         | serial         | pictures, image,     | high quality     | serial         |
| high quality  | high quality  | high quality   | quality        | numbers,       | numbers, high  | etc.                 | graphics,        | numbers,       |
| graphics,     | graphics,     | graphics,      | graphics,      | high quality   | quality        |                      | pictures,        | high quality   |
| pictures,     | pictures,     | pictures,      | pictures,      | graphics,      | graphics,      |                      | image, etc.      | graphics,      |
| image, etc.   | image, etc.   | image, etc.    | image, etc.    | pictures,      | pictures,      |                      |                  | pictures,      |
|               |               |                |                | image, etc.    | image, etc     |                      |                  | image, etc.    |

### PEDB-400 Mini Fiber Laser Marker

Innovative, advanced and smart PEDB-400 fiber laser marker is perfectly suited for marking on various kinds of metal materials with very high precision. Choose *5/10* Watt for low to medium speed applications and 20 Watt when higher power and faster speed marking are required.



### FEATURES

- It integrates laser device and auto ontroller with computer, designed with very small size and the complete weight is 22kg.
  High Precision with re-position precision is 0.002mm
- High Speed: Imported scanning system makes the scanning speed is up to 7000mm/s
- Easily Operating: Afford the specific marking software based on Windows, which is real-time adjust the laser power and pulse frequency. You can input and output by computer according to edit in the both of the specific marking software and the graphic software such as AutoCAD, CoreIDRAW or Photoshop.
- High Reliability: MTBF>100,000 hours
- Energy Saving: The efficiency of optic-electrical converting is up to 30%
- Low Running Cost: No consumables, free-maintenance.





### SPECIFICATIONS

| Laser type ····· Pulsed, High Energy Ytterbium Fiber Laser          |
|---|
| Laser power · · · · · · · · · · · · · · · · · · ·                   |
| Laser wavelength · · · · · · · · · · · · · · · · · · ·              |
| Mode ····· Q-switched operation                                     |
| Scanning Speed · · · · · · · · · · · · · · · · · ·                  |
| Marking Speed · · · · · · · · · · · · · · · · · ·                   |
| Marking size ····· ··· ··· ··· ··· ··· 110mm×110mm (F-theta 160)    |
| Spot size ·· ·· · · · · · · · · · · · · · · · ·                     |
| Cooling mode · · · · · · · · · · · · · · · · · · ·                  |
| <i>Typical beam quality M2 · · · · · · · · · · · · · · · · · · </i> |

### DIMENSIONS: 215mm×95mm×286mm WEIGHT: 10KG

Max. Power consumption · · · · · · · · · · · 600W Power supply · · 380V/50Hz Or 220V/50-60Hz



## PEDB-350 Diode End-Pump High-precision Laser Marker

Adopted the most advanced international diode end-pumped laser technology, the PEDB-350 model is perfectly suitable for marking applications that require high precision and smooth marks on workpiece surface. It is a good choice for medical instruments, measure tools, electronic components, mobile communications, IC, chips, jewellerys & decorations, etc.



### FEATURES

- With more than 45% high optics-optics conversion efficiency, the whole power consumption is decreased a lot.
- Using the diode end-pumped laser device, the laser beam is with the best transmiting mode and can reach the perfect marking effect which the YAG Lamp-pump laser and diode side-pumped laser can not achieve.
- Fast speed & no touch processing, the heat exchange is little, the material is not easy to distort.
- No need to change the consumables (such as laser lamp), free of maintenance, very low operation cost.
- All the core optical components used like laser diode, Q-switch crystal, are famous brands with top quality, the machine is with very stable performance and long life time.

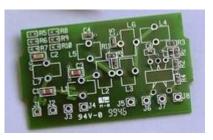


#### **SPECIFICATIONS**

| L | _aser Type ····· ··· ··· Nd: end-pumped diode          |
|---|--|
|   | _aser wavelength · · · · · · · · · · · · · · · 1064 nm |
| L | _aser power ····· 12W                                  |
| I | Marking scope ····· ··· ··· ··110mm*110 mm             |
| E | Beam quality M ·· ··2<3 (@ CW Power 10W)               |
| I | Marking speed · · · · · · · · · · · · · · · · 7000mm/s |
|   | Marking depth · · · · · · · · · · · · 0.01~0.2mm       |
|   | Minimum line width ····· ··· ··· ··· ··· ··· 0.01mm    |
| F | Repeatedaccuracy ···········0.005mm                    |
| Ι | Mode ·····Q-switched                                   |

#### DIMENSIONS

Marking System: 240mm\*1280mm\*1200m Control Cabinet: 590mm\*560mm\*800mm Water Cooling Machine: 540mm\*700mm\*900mm





## PEDB-350S Diode End-Pump High-precision Laser Marker (Rotary Type)

The diode end-pumped PEDB-350S is also perfectly suitable for marking applications that require high precision and smooth marks on workpiece surface. Based on the PEDB-350 model, by adding one set of rotary control system and rotary fixture, PEDB-350S is designed mainly for high precision rotary marking on column-shaped and taper-shaped metal and some hard nonmetallic workpieces.

#### **FEATURES**

- With more than 45% high optics-optics conversion efficiency, the whole power consumption is decreased a lot.
- Using the diode end-pumped laser device, the laser beam is with the best transmiting mode and can reach the perfect marking effect which the YAG Lamp-pump
  - laser and diode side-pumped laser can not achieve.
- Fast speed & no touch processing, the heat exchange is little, the material is not easy to distort.



### SPECIFICATIONS

| Laser Type ·····Nd: end-pumped diode                       |
|--|
| Laser wavelength · · · · · · · · · · · · 1064 nm           |
| Laser power · · · · · · · · · · · · · · · · · · ·          |
| Marking scope ····· ··· ·· 110mm*110 mm                    |
| Beam quality M2 · · <3 (@ CW Power 10W)                    |
| Marking speed · · · · · · · · · · · 7000mm/s               |
| Marking depth · · · · · · · · · · · 0.01~0.2mm             |
| Minimum line width · · · · · · · · · · · · 0.01mm          |
| Repeated accuracy ·········0.005mm                         |
| Mode ····· Q-switched                                      |
| Power supply ··· 380V/50Hz Or 220V/50-60Hz                 |
| <i>Machine power · · · · · · · · · · · · · · · · · · ·</i> |

- No need to change the consumables (such as laser lamp), free of maintenance, very low operation cost.
- All the core optical components used like laser diode, Q-switch crystal, are famous brands with top quality, therefore the whole machine is with very stable performance and long life time.





#### DIMENSIONS

Marking System: 240mm\*1280mm\*1200m Control Cabinet: 590mm\*560mm\*800mm Water Cooling Machine: 540mm\*700mm\*900mm

### PEDB-300 Diode Side-Pump High-precision Laser Marker

The diode side-pumped PEDB-300 is configured for fast speed, high precision laser marking. Special features are the excellent beam mode and free of maintenance. It is the economical choice for marking on fine metal parts, electronic components, high strength alloys, medical instrumets, jewellerys and decorations, etc.

#### FEATURES

- Use the advanced diode side-pumped laser technology, with high optical conversion efficiency and stable performance.
- Fast speed & no touch processing, the heat exchange is little, the material is not easy to distort.
- With preciser beam mode than YAG lamp-pump laser machine, the high precision is what the YAG Lamp-pump laser machine can not reach.
- No need to change the consumables (such as laser lamp), free of maintenance, very low operation cost.
- All the core optical components used such as laser diode, Q-switch crystal, are famous brands with top quality, therefore the whole machine is with very stable performance and long life time.







#### SPECIFICATIONS

| Laser Type ····· Nd: side-pumped diode                      |
|---|
| Laser wavelength · · · · · · · · · · · · · · · 1064 nm      |
| <i>Laser power · · · · · · · · · · · · · · · · · · 50W</i>  |
| Marking scope · · · · · · · · · 110mm*110 mm                |
| Beam quality M2 · · · · · · · · · · · · · <3 (@ 25A)        |
| <i>Marking speed · · · · · · · · · · · · · · · 7000mm/s</i> |
| <i>Marking depth · · · · · · · · · · · · · · 0.01~0.2mm</i> |
| Minimum line width ····· ··· ··· ··· ··· 0.02mm             |
| Repeated accuracy ····· ··· ··· ··· ··· ··· ··· 0.01mm      |
|   |

#### 

#### DIMENSIONS

Marking System: 240mm\*1280mm\*1200mm (L\*W\*H) Control Cabinet: 590mm\*560mm\*800mm (L\*W\*H) Water Cooling Machine: 540mm\*700mm\*900mm (L\*W\*H)

## PEDB-300S Diode Side-Pump High-precision Laser Marker (Rotary Type)

The diode side-pumped PEDB-300S is also configured for fast speed, high precision laser marking. Special features are the excellent beam mode and free of maintenance. Based on the PEDB-300 model, by adding one set of rotary control system and rotary fixture, PEDB-300S is designed mainly for high precision rotary marking on column-shaped and taper-shaped metal and some hard nonmetallic workpieces.

#### **FEATURES**

- Use the advanced diode side-pumped laser technology, with high optical conversion efficiency and stable performance.
- Fast speed & no touch processing, the heat exchange is little, the material is not easy to distort.
- With preciser beam mode than YAG lamp-pump laser machine, the highprecision is what the traditional YAG Lamp-pump laser machine can not reach
- No need to change the consumables (such as laser lamp), free of maintenance, very low operation cost.
- All the core optical components used such as laser diode, Q-switch crystal, are famous brands with top quality, therefore the whole machine is with very stable performance and long life time

DIMENSIONS(L\*W\*H)

MarkingSystem:240mm\*1280mm\*1200mm Control Cabinet: 590mm\*560mm\*800mm

Water Cooling Machine: 540mm\*700mm\*900mm



### SPECIFICATIONS

| Laser Type ··· ·· Nd: side-pumped diode               |
|---|
| Laser wavelength · · · · · · · · · · 1064 nm          |
| Laser power · · · · · · · · · · · · · · · · · · 50W   |
| Marking scope ····· ··· 110mm*110 mm                  |
| Beam quality M2 · · · · · · · · <3 (@ 25A)            |
| Marking speed · · · · · · · · · · 7000mm/s            |
| Marking depth · · · · · · · · 0.01~0.2mm              |
| Minimum line width · · · · · · · · 0.02mm             |
| Repeated accuracy ····· ··· ··0.01mm                  |
| Mode · · · · · · · · · · · · · · · · Q-switched       |
| Powersupply · · · · · · · · 380V/50Hz                 |
| ····· 220V/50-60Hz                                    |
| Machine power · · · · · · · · · · · · · · · · · · 3KW |





### PEDB-200 Deep-mark YAG Lamp-pump Laser Marker

With fast speed and big working area, the lamp-pumped PEDB-200 is designed specially for planar marking on bigger workpieces. It is the economical and reliable choice for high speed marking on various kinds of metals such as steel, stainless steel, iron, aluminium, copper, brass, anodized and coated material, etc., and some hard nonmetallics such as hard plastic, rubber, resin, ceramic, etc..

#### FEATURES

- Use the most popular YAG lamp-pumped solid laser device, with stable performance, reasonable cost and outstanding quality.
- It is the most widely used, the optimal cost-effectiveness and the most stable quality machine at present.
- Having large marking scope by applying the way of x-y axis scanning.
- Compare to galvanometer laser marking machine, PEDB-200 Laser Marking Machine could make deeper mark
- With moderate cost, PEDB-200 Laser Marking Machine can be applied on small-scale output work-piece.
- It can mark data & serials number automatically.
- Data can be shared & communicated online.





#### **DIMENSIONS:**

Marking System: 240mm\*1280mm\*1200mm (L\*W\*H) Control Cabinet: 590mm\*560mm\*800mm (L\*W\*H) Water Cooling System: 540mm\*700mm\*900mm (L\*W\*H)

### **SPECIFICATIONS**

| Laser Type ····· Particle YAG                                     |
|---|
| Laser wavelength ······1064 nm                                    |
| Laser power ·······50W  |
| Marking scope · · · · · · · · · · · · · · · · · · ·               |
| Marking speed · · · · · · · · · · · · · · · · · ·                 |
| Marking depth ··0.01~0.2mm(can be adjusted according to material) |
| Minimum line width ······   |
| Repeated accuracy ····· ··· ··· ··· ··· ··· ··· ··· ···           |
| Mode ······Q-switched   |
| <i>Power supply · · · · · · · · · · · · · · · · · · ·</i>         |
| Machine power · · · · · · · · · · · · · · · · · · ·               |



## PEDB-250 Deep-mark YAG Lamp-pump Laser Marker (Rotary Type)

By adding a set of rotary control system & rotary fixture, the lamp-pumped PEDB-250 is designed specially for rotary marking on column-shaped and taper-shaped metal and some hard nonmetallic workpieces. It is the economical and reliable choice for high speed marking on various kinds of metals such as steel, stainless steel, iron, aluminium, copper, brass, anodized and coated material, etc., and some hard nonmetallics such as hard plastic, rubber, resin, ceramic, etc..

#### **FEATURES**

- Use the most popular YAG lamp-pumped solid laser device, with stable performance, reasonable cost and outstanding quality.
- By adding a set of rotary control system & rotary fixture based on the PEDB-200 model, this model is mainly for marking on column-shaped, taper-shaped and other work pieces with curved surface.
- It is the most widely used, the optimal cost-effectiveness and the most stable quality machine at present.
- Having large marking scope by applying the way of x-y axis scanning.
- Compare to galvanometer laser marking machine, PEDB-200 Laser Marking Machine could make deeper mark
- With moderate cost, PEDB-200 Laser Marking Machine can be applied on small-scale output work-piece.
- It can mark data & serials number automatically.
- Data can be shared & communicated online.





#### **DIMENSIONS:**

Marking System: 240mm\*1280mm\*1200mm (L\*W\*H) Control Cabinet: 590mm\*560mm\*800mm (L\*W\*H) Water Cooling System: 540mm\*700mm\*900mm (L\*W\*H)



### **SPECIFICATIONS**

| Laser Type ····· Particle YAG                                    |
|--|
| Laser wavelength ······1064 nm                                   |
| Laser power ·······50W   |
| Marking scope · · · · · · · · · · · · · · · · · · ·              |
| Marking speed · · · · · · · · · · · · · · · · · ·                |
| Marking depth …0.01~0.2mm(can be adjusted according to material) |
| Minimum line width ····· ··· ··· ··· ··· ··· ··· ··· ···         |
| Repeated accuracy ····· ··· ··· ··· ··· ··· ··· ··· ···          |
| Mode ······Q-switched  |
| <i>Power supply · · · · · · · · · · · · · · · · · · ·</i>        |
| Machine power ······5KW  |

## PEDB-100 YAG Lamp-pump Laser Marker

With fast speed and high quality, the lamp-pumped PEDB-100 is designed for planar hard surface treatment. It is the economical and reliable choice for high speed marking on various kinds of metals such as steel, stainless steel, iron, aluminium, copper, brass, anodized and coated material, etc., and some hard nonmetallics such as hard plastic, rubber, resin, ceramic, etc..

#### FEATURES

- Use the most popular YAG lamp-pumped solid laser device, with stable performance, reasonable cost and outstanding quality.
- Fast speed & no touch processing, with little heat exchange, the material is not easy to distort.
- Fixed and stable optical path, with high precision laser beam transmission.
- With multifunctional marking software, the machine can be collocated with digital-controlled revolving parts, automatic fixture, and automatic lift on & down production line.
- User can mark data, series number, bar code and graphics automatically.
- User can share & communicate the data with other equipments and online.
- Used top quality key optical components, the whole equipment is with long life time.





#### **DIMENSIONS:**

Marking System: 240mm\*1280mm\*1200mm (L\*W\*H) Control Cabinet: 590mm\*560mm\*800mm (L\*W\*H) Water Cooling System: 540mm\*700mm\*900mm (L\*W\*H)



### SPECIFICATIONS

| Laser Type ····· Anno Anno Anno Anno Anno Anno Ann                           |
|--|
| Laser wavelength · · · · · · · · · · · · · · · · · · ·                       |
| Laser power · · · · · · · · · · · · · · · · · · ·                            |
| Marking scope ····· ··· ··· ··· ··· ··· ··· ··· ···                          |
| Marking speed · · · · · · · · · · · · · · · · · ·                            |
| Marking depth $\cdot\cdot$ 0.01~0.2mm(can be adjusted according to material) |
| Minimum line width ····· ··· ··· ··· ··· ··· ··· ··· ···                     |
| Repeated accuracy ····································                       |
| Mode ······Q-switched  |
| <i>Power supply · · · · · · · · · · · · · · · · · · ·</i>                    |
| <i>Machine power</i> · · · · · · · · · · · · · · · · · · ·                   |

## PEDB-150 YAG Lamp-pump Laser Marker (Rotary Type)

This model is also adopted lamp-pumped YAG laser technology, with fast speed and stable performance. Based on the PEDB-100 model, by adding a rotary system, PEDB-150 is designed mainly for rotary marking on column-shaped and taper-shaped metal and some hard nonmetallic workpieces.





#### **FEATURES**

- Use the most popular YAG lamp-pumped solid laser device, with stable performance, reasonable cost and outstanding quality.
- Fast speed & no touch processing, little heat exchange, the material is not easy to distort.
- Fixed and stable optical path, with high precision laser beam transmission.
- With multifunctional marking software, the machine can be collocated with digital-controlled revolving parts, automatic fixture, and automatic lift on & down production line.
- User can mark data, series number, bar code and graphics automatically.
- User can share & communicate the data with other equipments and online.
- Used top quality key optical components, the whole equipment is with long life time.



### SPECIFICATIONS

| Laser Type ····· Anno Anno Anno Anno Anno Anno Ann                             |
|--|
| Laser wavelength ·····1064 nm  |
| Laser power ····································                               |
| Marking scope · · · · · · · · · · · · · · · · · · ·                            |
| Marking speed · · · · · · · · · · · · · · · · · ·                              |
| Marking depth $\cdot \cdot 0.01$ ~0.2mm(can be adjusted according to material) |
| Minimum line width · · · · · · · · · · · · · · · · · · ·                       |
| Repeated accuracy ······   |
| Mode ······Q-switched  |
| <i>Power supply · · · · · · · · · · · · · · · · · · ·</i>                      |
| Machine power · · · · · · · · · · · · · · · · · · ·                            |

#### DIMENSIONS

Marking System: 240mm\*1280mm\*1200mm (L\*W\*H) Control Cabinet: 590mm\*560mm\*800mm (L\*W\*H) Water Cooling System: 540mm\*700mm\*900mm (L\*W\*H)

## PEDB-C10/C30/C60 CO<sub>2</sub> Laser Marker (For Nonmetallic Materials)

Available in 10, 30, 60 Watt metal RF CO<sub>2</sub> laser tube configurations, PEDB-C10/C30/C60 CO<sub>2</sub> laser markers are designed for marking on nonmetallic materials like wood, paper, glass, acrylic, plexiglass, ceramics, quartzs, and leathers, fabrics, and other organic materials.



#### **SPECIFICATIONS**

| Laser Type ····· ············CO <sub>2</sub> laser     |
|--|
| Laser wavelength · · · · · · · · · · · · 10.64 nm      |
| Laser power · · · · · · · · · · · 10W/30W/60W          |
| Marking scope ····· ··· ··· ·110mm*110 mm              |
| Marking speed · · · · · · · · · · · · · 7000mm/s       |
| <i>Marking depth</i> ·········0.01~0.2 <i>mm</i>       |
| ·····(can be adjusted according to material)           |
| Minimum line width · · · · · · · · · · · · · · 0.1mm   |
| Repeated accuracy ··· ·· ·· ·· ·· ·· 0.01mm            |
| Power supply ··· 380V/50Hz Or 220V/50-60Hz             |
| Machine power ··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· 3KW |
|  |



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### FEATURES

• Equipped with the most advanced metal RF CO<sub>2</sub> laser tube, can be refilled with CO<sub>2</sub> gas, no need to change consumables, exempt-maintenance and long life time.

• With high-rate of photoelectric conversion and RF metal tube, the laser beam mode is much better than common machine with glass laser tube, and the high accuracy marking effect is what common CO<sub>2</sub> laser marker can not achieve.

• Fast speed & no touch processing, the heat exchange is little, the material is not easy to distort.

• With multifunctional marking software, the machine can be collocated with ital-controlled rotary accessory, automatic fixture, and production line.

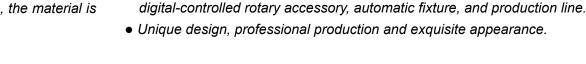
- User can mark data, series number, bar code and graphics automatically.
- User can share & communicate the data with other equipments and online.
- Unique design, professional production and exquisite appearance.

## **PEDB-C60A CO<sub>2</sub> Laser Marker (For Nonmetallic Materials)**

Equipped with 60 Watt glass CO<sub>2</sub> laser tube, PEDB-C60A CO<sub>2</sub> laser marker is also designed for marking on nonmetallic materials like plastic, wood, paper, glass, acrylic, plexiglass, ceramics, quartzs, and leathers, fabrics, and other organic materials.

### FEATURES

- With high-rate of photoelectric conversion, the machine is with very stable performance.
- Fast speed & no touch processing, the heat exchange is little, the material is not easy to distort.





### **SPECIFICATIONS**

| Laser Type $\cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots CO_2$ laser |
|---|
| Laser wavelength ··· ·· ·· ·· ·· ·· 10.64 nm                                    |
| Laser power · · · · · · · · · · · · · · · · · · ·                               |
| Marking scope ····· ··· ·· 110mm*110 mm   |
| Marking speed · · · · · · · · · · · · · 7000mm/s                                |
| Marking depth ····· ··· ··· ··· 0.01~0.2mm                                      |





• User can share & communicate the data with other equipments and online

• With multifunctional marking software, the machine can be collocated with

| Minimum line width · · · · · · · · · · · · · · 0.1mm |
|--|
| Repeated accuracy ···········0.01mm                  |
| Power supply ··· 380V/50Hz Or 220V/50-60Hz           |
| Machine power · · · · · · · · · · · · · · · · · · ·  |



## Perfect Laser's Quality guarntee services and after-sales services

- 1) The guarantee period of quality shall be 12 months counting from the date on which the commodity arrives at the port of destination. Except the damage artificially, we are responsible for offering the fittings free of charge during the guarantee period. While user is kindly requested to send the damaged fittings to us by courier with your charge before we send back the alternative fitting parts. After the guarantee of quality period, the parts required repairing or change, if any, shall be reasonable charged.
- 2) We will give technical guide by email, fax and telephone when user meets some problems on installation, operation, adjusting, maintaining.
- 3) We offer technical supporting to ensure safety using & maintenance for user:
  - > Operation manual for installation, adjusting, operation, maintaining;
  - Professional marking software;
  - > Operational marking software backup;
  - > Quick supplement of key components with reasonable price.
  - > Life-long after-sales service & consulting service to user.

### Laser Accessories

| Arc lamps   | Laser Lamps | Flash lamps | Laser Optics |
|-------------|-------------|-------------|--------------|
| DC Arclasge | 100         | Flashlamps  |              |

## **Contact Us**



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