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SABER FORCE

Beautiful Life

Laser because of monochromatic, coherence and parallel to the three major characteristics, especially for materials processing. Laser processing is the most promising field of laser applications, foreign has developed more than 20 kinds of blue laser pointer processing technology. Laser space control and time control is very good, the processing of the material, shape, size and processing environment of the degree of freedom are very large, especially for automated processing. Laser processing system and computer numerical control technology can constitute a highly efficient automated processing equipment, enterprises have become timely production of key technologies for high-quality, efficient and low-cost processing and production has opened up broad prospects.

Laser processing refers to the use of laser beam projected onto the surface of the material produced by the thermal effect to complete the processing, including laser welding, laser cutting, surface modification, laser marking, laser drilling and micro-processing. The red laser beam of various materials for processing, such as drilling, cutting, scribing, welding, heat treatment. The laser can adapt to the processing of any material, especially in the presence of special precision and requirements, special occasions and special materials processing and manufacturing plays an irreplaceable role. Laser processing is the laser beam irradiation to the surface of the workpiece to laser high energy to remove, melt material and change the surface properties of the object. As the laser processing is non-contact processing, the tool will not directly with the workpiece surface grinding resistance, so the laser processing speed, processing objects

affected by a small range of heating and no noise. Since the energy of the laser beam and the speed of movement of the beam can be adjusted, laser processing can be applied to different levels and ranges.

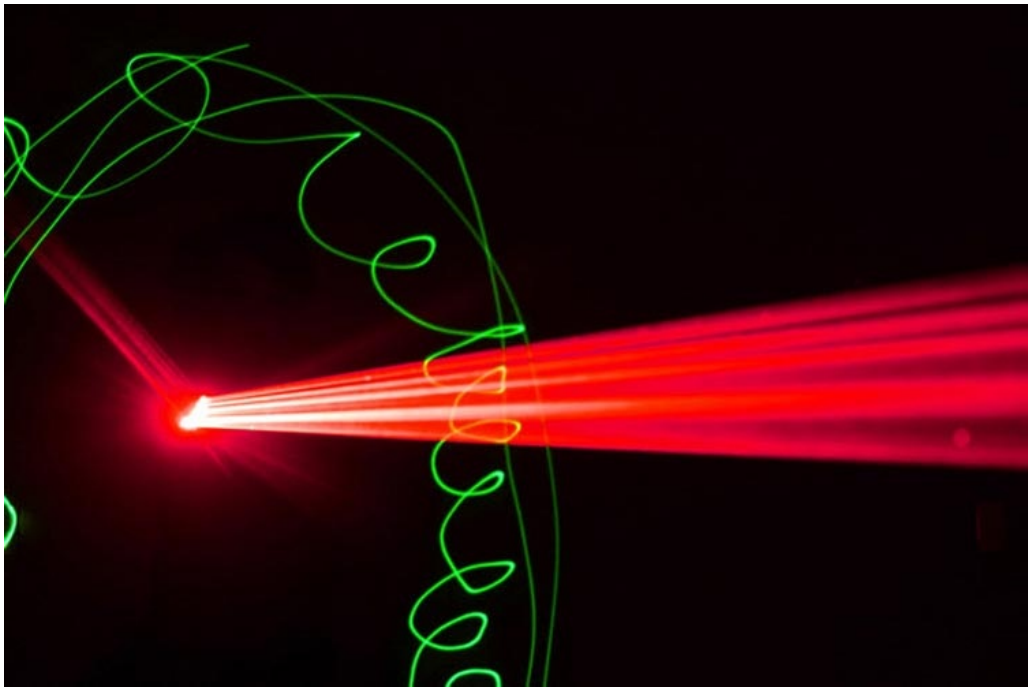
The characteristics of the laser have the advantage of the presence of the laser in the field of processing: it is possible to achieve a variety of processing purposes because it is contactless and the energy and speed of the high energy laser beam are adjustable. Can be a variety of metal, non-metallic processing, in particular, can be processed high hardness, high brittleness, and high melting point of the material. Laser processing, the green laser light beam energy density, processing speed, and is the local processing, non-laser irradiation site has no effect or minimal impact. Therefore, the heat affected zone is small, the workpiece thermal deformation is small, follow-up processing is small. A variety of processing of the workpiece in a closed container can be carried out through a transparent medium. As the laser beam is easy to guide, gather to achieve the direction of transformation, easily with the CNC system with complex parts for processing, it is a very flexible processing methods. The use of laser processing, high production efficiency, reliable quality, good economic returns.

Laser scribing makes wafer microcracks and microcracks greatly reduced, and the distance between the LEDs is closer, thus improving the productivity and increasing the productivity. In general, 2-inch wafers can separate more than 20,000 LED monolithic devices, thus cutting the slit width will significantly affect the number of particles; reduce micro-cracks for the long-term reliability of the LED device after the separation There will be a significant increase. Compared with the traditional blade cutting, laser marking not only improves the output efficiency, but also improves the processing speed and avoids the machining defects and the cost loss caused by the blade wear. In short, the 10000mw laser processing precision is high, the processing tolerance is large, the cost low.

The scribing line of laser scribing LED is much narrower than that of traditional mechanical drawing, so the utilization ratio of material is improved remarkably, so the output efficiency is improved. The other is a non-contact laser processing technology, characterization of micro cracks and other damage to the wafer is smaller, the closer the wafer between particles, high efficiency, high output capacity, and reliability of LED devices also greatly improve product.

Laser Surgery Rehabilitation

Fiber laser welding machine is the use of energy fiber, the laser generated by solid-state laser, through the laser coupling technology to the fiber, and then the fiber in the laser through the output mirror to the workpiece surface, to achieve the purpose of welding. The use of optical fiber transmission green astronomy laser, you can use the flexibility of the fiber, so that the laser can be arbitrary angle of the workpiece processing, to achieve a multi-dimensional flexible processing. Fiber laser on the laser energy also have a homogeneous effect, the laser spot energy can be modeled output, and the laser for homogenization, so that the laser beam quality is better to improve the quality of welding. The use of energy feedback power output energy laser can do the same spot.



Laser welding technology is a new type of high-efficiency welding technology in the market in recent years, which can greatly improve the production efficiency for multi-point welding. The laser flight welding technique is used by the robot arm movement to cooperate with the high dynamic positioning motion of the laser scanner to transfer the laser beam in the laser to the editable focused optical head (PFO) mounted on the robot by optical soldering, Two high-speed scanning mirrors in the PFO (ie "filters") enable the green laser light beam to perform high-speed precision movement in accordance with the programmed path, and realize the welding of the sheet metal by focusing the telecentric lens. In the automotive industry, laser welding technology can be applied to automotive seat plate, instrument related parts, door structure, trunk lid and other special materials (such as galvanized material) sheet welding process.

From the market growth point of view, according to the type of laser, the next five years, the fastest growing market is the direct semiconductor lasers, mainly kilowatt-

class high-power semiconductor lasers; growth is the second fastest quantum cascade laser, this laser advantage obviously, widely used, especially in anti-terrorism, security and other applications play an important role in the future of the global quantum cascade lasers will have a huge demand. Fiber lasers will always maintain a steady growth rate. From the application of the laser market, to remove about half of the optical communications market, the current macro-processing is the largest market, followed by micro-processing, the future with the manufacturing industry continues to high-end development, micro-processing market will have a large growing space.
Please consult your doctor before deciding whether to undergo any blue laser surgery. Depending on your age, overall health status, health care plans, and laser surgery costs, your doctor may advise you to choose a traditional surgical procedure. For example, if your age is less than 18 years old, you should not accept Lasik (excimer laser surgery) ophthalmic surgery. Laser surgery rehabilitation and general surgery almost. A few days before surgery, need to rest enough to take painkillers until the discomfort and swelling of the situation disappeared. The condition of rehabilitation after laser treatment is different depending on the type of treatment received and the treatment of the body.
The main driving factor in the global laser treatment market is the growth in demand for cosmetic surgery. American Orthopedic Association estimated that only 2016 years in the 1.8 million cosmetic surgery and 15.5 million minimally invasive cosmetic surgery. Other market drivers include increased population aging, increased age-related eye disease complications, penetration of laser treatment clinics, and so on. Taking into account all these factors, the global burning laser treatment market is expected to reach $ 9.77 billion by the end of 2023, and the average compound annual growth rate will reach 12.2% during the period from 2017 to 2023.

奥付

Laser Pointers

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