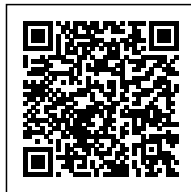


HOW TO SAFELY USE A LASER CUTTING MACHINE?

Posted on 2023-05-30 by redsail



Category: [Laser Cutter News](#)



1. The site must be equipped with fire extinguishing equipment



laser cutting machine

Laser cutting machines should be equipped with fire extinguishers and other fire extinguishers. Operators should understand the layout and usage.

2. Manage the location of the laser cutting machine as a dangerous area

The area where the equipment is located should be classified as a hazardous area, and the area should be enclosed by a retractable barrier. Leakage outside the laser hazardous area should be kept within the following accessible emission limits.

Warning signs should be set up at the entrance and exit of the dangerous area, including invisible laser radiation, laser cutting machine power supply, prohibiting outsiders from entering, and paying attention to eye protection

When the laser cutting machine is working, it is strictly forbidden for anyone to approach the dangerous area.

3. It is strictly forbidden to work after being tired and drinking.

There are great risks in using laser processing equipment such as laser cutters. If neglected, it is likely to cause injury. Therefore, it is strictly forbidden to operate the laser cutting machine after fatigue and drinking.

Do not look directly at the laser beam

4. It is strictly forbidden to open the machine cover during the operation of the laser.

During the operation of the laser, it is strictly forbidden to open the upper cover of the laser.

For enclosed fiber laser cutting machines, it is strictly forbidden to open the protective door during the entire operation.

5. It is strictly forbidden to wear metal objects for maintenance operations.

Those who do not have maintenance qualifications are strictly prohibited from maintaining or adjusting the laser.

Metal accessories or objects (such as rings, bracelets, watches, earrings, metal belt buckles, etc.) must not be worn while servicing or adjusting the laser. Failure to do so may result in electric shock.

Maintenance and adjustment of laser and light guide systems is an extremely dangerous job. In order to prevent accidents, it is forbidden to do maintenance work alone, "two people go together".

6. It is strictly forbidden to output the laser beam when there is no target.

It is strictly forbidden to output the laser beam when there is no target. Otherwise, the laser beam will directly irradiate the equipment, causing equipment and personal accidents.

7. It is strictly forbidden to pile up flammable materials in the laser cutting machine processing area.

It is strictly forbidden to pile up paper, tarpaulin, oil and other flammable materials near the laser cutting machine.

When using oxygen as the cutting auxiliary gas, there should be no oil stains on the surface of the material. Otherwise it is easy to cause a fire.

8. It is strictly forbidden to enter the danger zone when the machine is working

The danger zone of a laser cutter is the entire workbench, which extends outwards if it is an open workbench. The processing area is the main hazard area. In this area, moving beams may have an impact on the human body; movable beams and fixed beds, doors, and bases may squeeze the human body; sharp objects or needle-like support thimbles may stab or pierce the human body; high-power, high-density lasers may cause fatal injury to the human body.

9. Keep the work area ventilated, clean and well lit

The working area of the laser cutting machine should be well ventilated to facilitate the discharge of harmful gases (such as pipes bursting due to nitrogen overflow or gas cylinders leaking). Make sure that harmful gases and substances during processing and laser working gas are completely

discharged to the outside.

The gas cylinder should be placed on the gas cylinder rack, as close to the wall as possible, stable and tidy.

In the laser safety management area, good lighting should be ensured.

10. Wear goggles and protective clothing

The operator of the laser cutting machine or the person who is close to the laser during the use of the laser should wear suitable protective glasses (with side shields and corresponding to the laser wavelength) as much as possible. The purpose of wearing goggles is to avoid eye exposure to possible laser radiation, metal splashes during cutting, debris from lens bursts, and eye damage from burst high-pressure pipes.

11. Key management

When the operator leaves the laser cutting machine, he should remove the switch key and the laser key to control the power supply of the equipment to prevent misoperation by other personnel.

12. Correctly handle damaged optical components

Focusing and reflector mirrors and their coatings can form toxic substances when overheated or otherwise damaged. When handling, wear latex gloves and do not touch with bare hands. Damaged lenses cannot be disposed of as regular trash, but should be disposed of by professional institutions.