## DOES THE LASER CUTTING MACHINE HAVE RADIATION? IS THE LASER CUTTING MACHINE HARMFUL TO THE HUMAN BODY?

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What are the hazards of the <u>laser cutting machine</u> to the operator? Does the laser cutting machine have radiation? Is the laser cutting machine harmful to the human body? You only need to understand some common sense of laser cutting machines.

As we all know, there are great risks in the machining industry. Mechanical noise, dust and dust generated by processing, and improper operation will cause minor or severe personal injury to the operator. In order to avoid personal threats to operators, the following suggestions are given to remind operators to perform standardized operations.

During the processing of the laser cutting machine, the characteristics of the emitted laser light can make the energy highly concentrated in space and time. It is focused on the retina to form an image through the refractive medium of the eye. The energy density on the retina is 104-105 higher than the incident energy density on the cornea; the monochromaticity of the laser is good, and the chromatic aberration in the fundus is small. The above characteristics cause extremely low laser energy irradiation to cause damage to the cornea or retina. If you want to reduce the radiation of the laser cutting machine, you must use laser protective glasses, which are specially designed for fiber laser cutting machine equipment, which can effectively reduce the radiation of the fiber laser cutting machine. Therefore, the staff don't have to worry about it when using it, and they can cut the workpiece with confidence, and there are many types of laser protective glasses, including composite type, absorption type, reflection type and diffraction type. If you want to reduce the radiation of the laser cutting machine, the staff can protect themselves, such as eating more food with anti-radiation, so that they can effectively resist the radiation of the fiber laser cutting machine.

Generally, operators who are new to laser cutting machines like to stare at the cutting head. If they look at the sparks generated by cutting for a long time, it will hurt the eyes and cause a tingling sensation. - Generally, some laser cutting machine manufacturers will provide corresponding eye protection glasses. Laser cutting machines are highly intelligent and can be operated unmanned, so there is no need to ask the operator to stare at the cutting head. There is a lot of dust, thick smoke and strong light when the plasma cutting machine is cutting, which requires a matching dust removal device. The laser cutting machine produces less dust when cutting objects, the light is not very strong, the noise is very small, and it is more environmentally friendly.

Smoke hazards are also easily overlooked by operators. The high temperature generated by the laser interacts with the processed materials to complete various processing, and at the same time, a large amount of steam mist is generated. When processing non-metallic materials, the generated smoke contains a large amount of chemical components, which are emitted into the air and will

cause harm to the human body. For garment accessories processing, button paint stripping, wire stripping processing, and paper processing, it is more serious, and a smoke exhaust system must be installed. At the same time, ensure the ventilation of the working environment. I also hope that relevant practitioners will pay attention to their own health in time.