

HOW TO CLEAN THE PROTECTIVE LENS OF THE LASER CUTTING MACHINE?

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Optical [lenses](#) in laser systems are consumables. In order to prolong the service life as much as possible and reduce the service cost, it is necessary to clean the lens strictly according to this specification. During the replacement process, care should be taken to prevent lens damage and contamination in the placement, inspection and installation of optical lenses. New lenses should be cleaned regularly after installation. Of course, cleaning lenses is not the same as cleaning glasses, you need to pay attention.

When the laser cuts the material, a large amount of gas and splashes are released from the working surface, which will cause damage to the lens. When contamination lands on the lens surface, it absorbs energy from the laser beam, creating a thermal lensing effect. If the lens is not yet thermally stressed, it can be removed and cleaned by the operator. During the lens installation and cleaning process, any viscosity, even a drop of nail polish, will increase the absorption rate of the lens and reduce the service life. Taking the daily operation of Guohong laser lens as an example, the following precautions need to be taken:

1. Never wear lenses with bare fingers. Wear finger cots or rubber gloves.
2. Never use sharp instruments to avoid scratching the lens surface.
3. Lenses should be tested and cleaned in a dry and clean place. On the surface of a good bench should be several layers of cleaning paper towels, as well as several sheets of tissue for cleaning lenses.
4. Users should avoid talking above the lens, and keep food, drinks and other potential pollutants away from the working environment.

In the process of cleaning the lens, relatively less risky methods should be used. The following steps have been developed for this purpose and should be taken by the user.

1. Use a blower to blow off the floating objects on the surface of the original parts, especially the lenses with fine particles and flocs on the surface, but do not use compressed air on the production line, because the air contains oil mist and water droplets, which will deepen the pollution of the lenses.

2. Lightly clean the lens with pure acetone, this level of acetone is almost anhydrous, reducing the possibility of lens contamination.

Cotton balls dipped in acetone need to be placed under the light to clean the lenses, and in a circular motion. Cotton swabs need to be replaced once soiled.