

# HOW TO MAINTAIN ACRYLIC LASER CUTTING ENGRAVING MACHINE

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## REDSAIL CM1610 AUTO FEEDING LASER CUTTER

Redsail Laser Cutter / Engraving Machine  
1610 for Cutting Soft Materials

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## One: Water replacement and water tank cleaning

Suggestion: clean the water tank and replace the circulating water once a week

Note: Make sure that the laser tube is filled with circulating water before the machine works.

The water quality and temperature of the circulating water directly affect the service life of the laser tube. It is recommended to use pure water and keep the water temperature below 35°C. If it exceeds 35°C, it is necessary to replace the circulating water, or add ice cubes to the water to lower the water temperature (it is recommended that users choose a cooler, or use two water tanks).

Clean the water tank: first turn off the power, unplug the water inlet pipe, let the water in the laser tube flow into the water tank automatically, open the water tank, take out the water pump, and remove the dirt on the water pump. Clean the water tank, replace the circulating water, return the water pump to the water tank, insert the water pipe connecting the water pump into the water inlet, and arrange the joints. Power on the water pump separately and run it for 2-3 minutes (to make the laser tube full of circulating water).

Fan cleaning Long-term use of the fan will cause a lot of solid dust to accumulate in the fan, making the fan produce a lot of noise, which is not conducive to exhaust and deodorization. When the suction of the fan is insufficient and the smoke exhaust is not smooth, first turn off the power, remove the air inlet and outlet pipes on the fan, remove the dust inside, then turn the fan upside down, and pull the blades inside until it is clean, and then install the fan.

Three: Cleaning of the lens (it is recommended to clean before working every day, and the equipment must be turned off)

There are 3 reflectors and 1 focusing mirror on the engraving machine (the first reflector is located at the emission exit of the laser tube, that is, the upper left corner of the machine, the second reflector is at the left end of the beam, and the third reflector is at the fixed part of the laser head. The top of the laser head, the focusing lens is located in the adjustable lens barrel at the bottom of the laser head), the laser is reflected and focused by these lenses and then emitted from the laser head. The lens is easily stained with dust or other pollutants, which will cause loss of laser light or damage to the lens. No. 1 and 2 lenses do not need to be removed when cleaning, just carefully wipe the lens with the lens cleaning paper dipped in cleaning fluid along the center of the lens. Edge swivel wipe.

The No. 3 lens and focusing lens need to be taken out of the frame, wiped in the same way, and then put back in the same way after wiping.

Note: 1. The lens should be wiped gently, and the surface coating should not be damaged; 2. The cleaning process should be handled with care to prevent falling; 3. When installing the focusing lens, please keep the concave side down.

Cleaning of the guide rails (It is recommended to clean once every half a month and shut down the operation)

As one of the core components of the equipment, guide rails and linear shafts function as guides and supports. In order to ensure that the machine has high machining accuracy, its guide rails and straight lines are required to have high guiding accuracy and good motion stability. During the operation of the equipment, a large amount of corrosive dust and smoke will be generated during the processing of the workpiece. Based on the long-term deposition of a large amount of these smoke and dust on the surface of the guide rail and the linear shaft, it will have a great impact on the processing accuracy of the equipment, and will Corrosion spots are formed on the surface of the linear axis of the guide rail, shortening the service life of the equipment. In order to make the machine work normally and stably, and ensure the processing quality of the product, the daily maintenance of the guide rail and the linear axis must be carefully done. the

Note: Please prepare for cleaning the rails - dry cotton cloth, lubricating oil

The guide rails of the engraving machine are divided into linear guide rails and roller guide rails. In the YM series, linear guide rails are used in the X direction, and roller guide rails are used in the Y direction.

Cleaning of the linear guide: first move the laser head to the far right (or left), find the linear guide shown in the figure above, wipe it with a dry cotton cloth until it is bright and dust-free, and add a little lubricating oil (sewing machine oil can be used, cut Do not use engine oil), slowly push the laser head left and right several times, so that the lubricating oil can be evenly distributed.

Cleaning of the roller guide rails: Move the crossbeam to the inside, open the end covers on both sides of the machine, find the guide rails as shown in the figure above, wipe clean the place where the guide rails on both sides are in contact with the rollers with a dry cotton cloth, and then move the crossbeam to clean the remaining places.

