

# ADJUSTMENT OF OPTICAL PATH OF LASER CUTTING MACHINE

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## Laser cutting machine

First determine whether the center height of the laser frame is the same as the center height of the laser frame. Generally, laser frame manufacturers will directly match the center height. What is the center height: the center point of the hole of solid laser, laser red frame, laser full frame, laser half frame, and laser beam expansion frame must be flat, and the difference cannot exceed 1mm.

Step 1: Install the red light frame, the red light indicator is on, turn it down a little, and pass through the "center" of the hole in the front baffle of the optical frame,

Step 2: Install the beam expander tube, the red light reflection of the beam expander tube will have scattered points. Here, adjust the beam expander frame and see that the red light turns into a point, which is the center point.

Step 3: Install the laser cavity. Some people call it a solid-state laser. The cavity must have laser red light, indicating that the positioning light passes through the center of the YAG laser crystal rod in the cavity, and the red light reflection is centered on the point. If the red light is not a point, it proves that the ingot is not in the direction of the center point, and adjust the bulk laser cavity as the center point. beam laser

Step 4: Install the half mirror frame (including the laser half mirror lens), see if the red light indicator passes through the center of the lens, if so, you can tighten the frame screw, the indicator light is not in the center, please adjust the screw to the center point, and see the red light Whether the frame is a red light point works best,

Step 5: Install the full reflection lens frame (including all laser-reflection lenses) to see if the red light point is in the center, the same operation as the half mirror

Step 6: Turn on the laser power, turn on the laser xenon lamp,

Step 7: Adjust the laser current on the template of the laser cutting machine between:, pulse width: 1, 6-2, 0, frequency: 1, 0, note here that I set the dimming parameters according to the dimming photo paper . If it is a dimming film, the frequency multiplier is another parameter. Step 8: Put the photo paper in front of the laser half mirror, the beam expander on the back seat, press the laser, the

continuous frequency is one light spot per second. See if the light spot on the photo paper is the roundest. It's about getting the best cut, not just adjusting the screws on the full reflection frame to get the best round.