

G·WEIKE

M Series

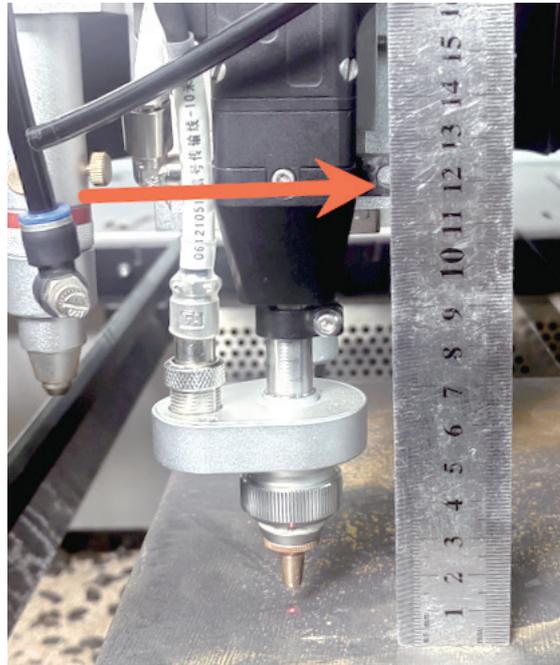
Installation Manual



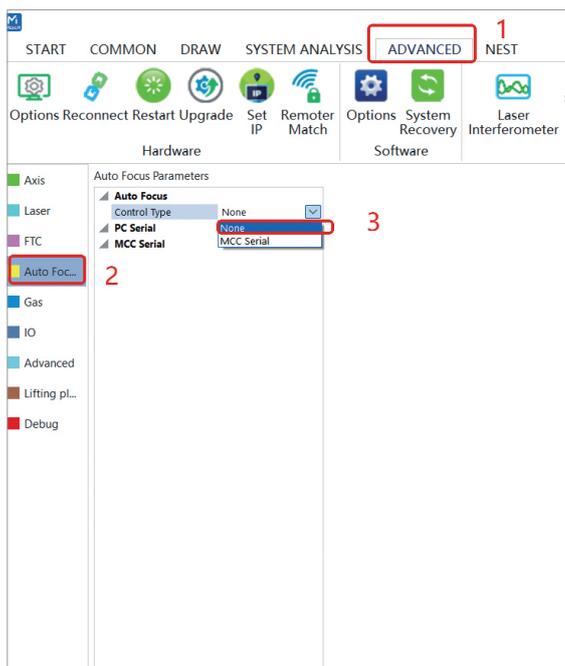
Flatbed CNC cleaning, quenching, and welding

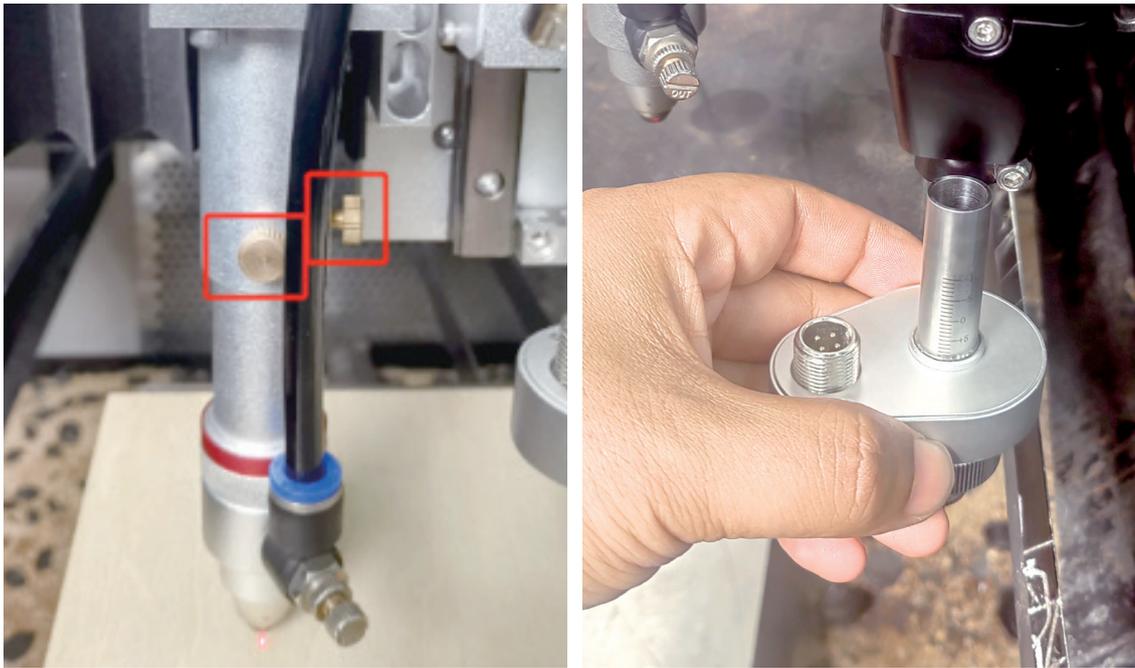
1. CNC Cleaning

Step 1: Connect the signal line of the laser to the back of the machine bed. Move the Z-axis and W-axis rulers for measurement, ensuring the height from the plate to the center of the side screw hole of the gun head is **12cm**.



Step 2: Shield the height adjuster, remove the height adjuster cable, take off the extension tube at the bottom of the cutting head, and adjust the CO₂ laser head to the highest position.





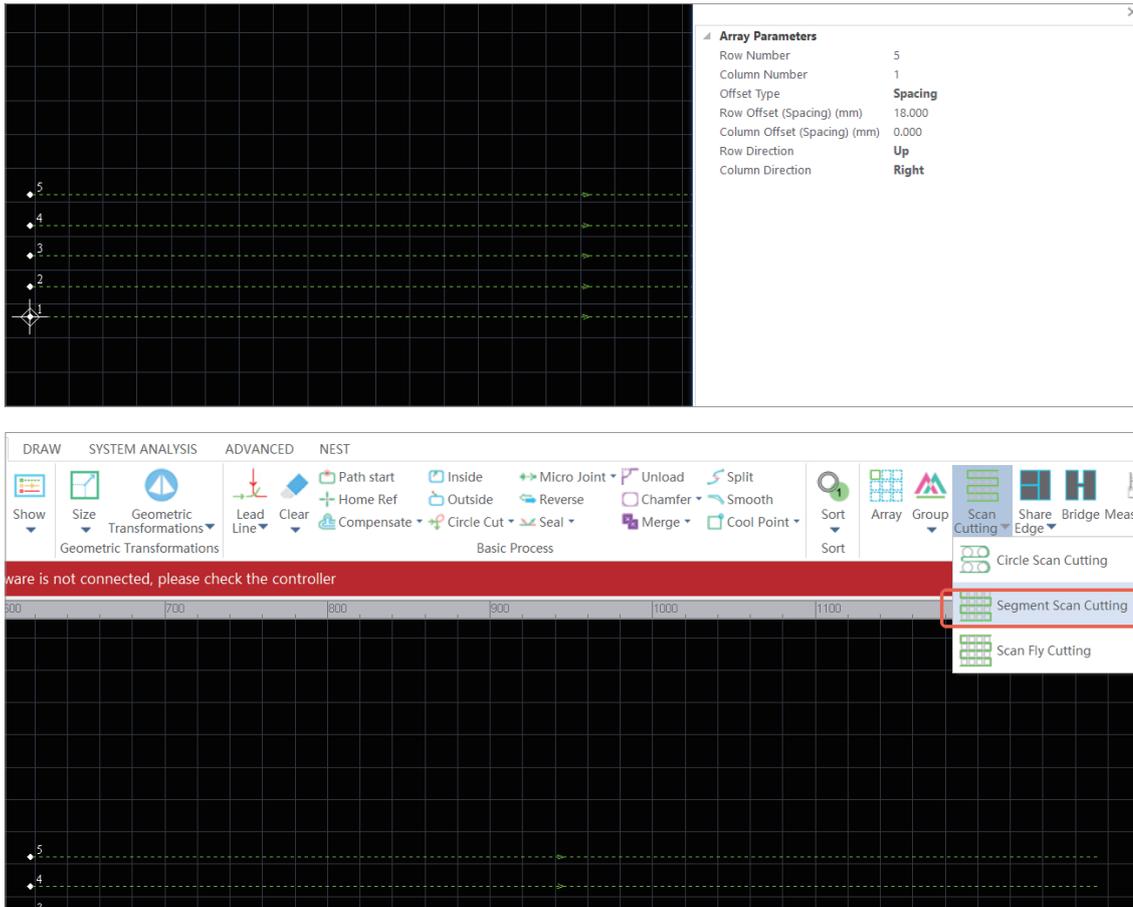
Step 3: Adjust the stop delay time in the advanced parameters of the air-cooled welding machine. Advanced parameters - Password: 2000.



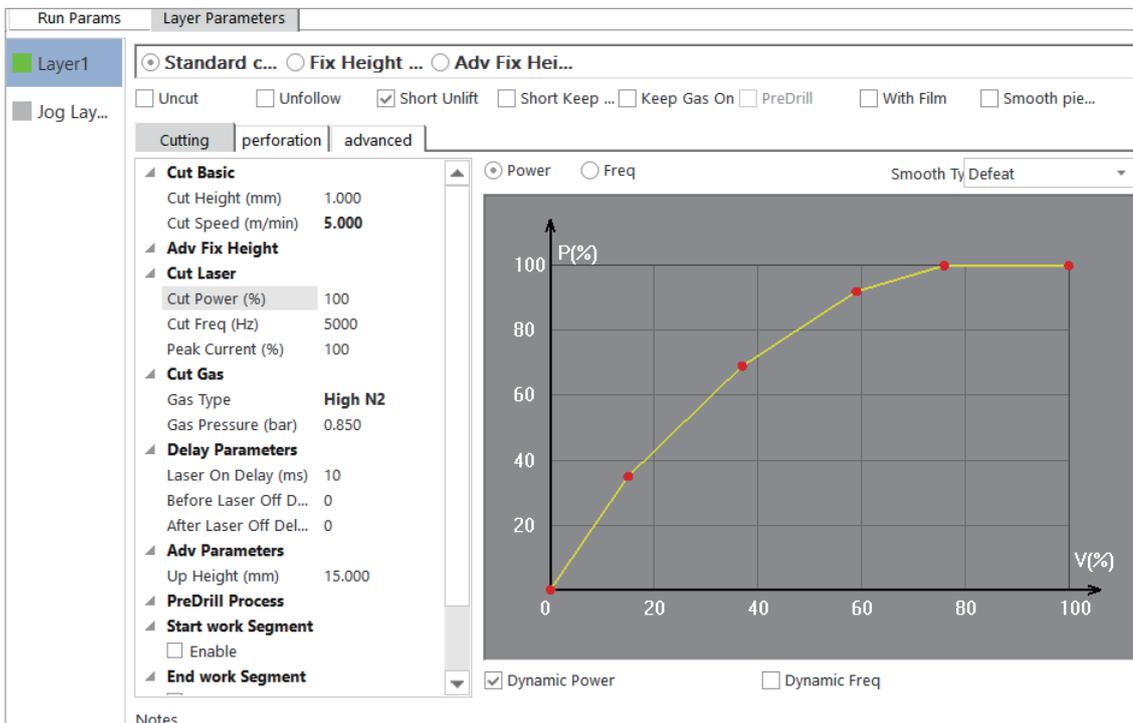
Step 4: Switch the control interface of the air-cooled welding machine to cleaning mode with the password 5000, and adjust the frequency and swing width. It is recommended that the maximum frequency be 60Hz and the maximum width be 20mm. (Since the signal line of the laser is connected to the machine, the power can only be modified in the cutting software.)



Step 5: Draw lines (set the length according to the material size), array (set the quantity according to the material size), and set the line spacing to about 18mm (slightly less than 20mm). Select the graphics and then choose straight line flying cut.



Step 6: Parameter settings, including fixed-height cutting, speed settings, air pressure and other parameters. The frequency and swing parameters are modified on the welding machine, and only the speed and power can be modified in the software.



Step 7: Run the border to check if the entire area can be cleaned. Start the process after confirmation. (It is recommended that the air pressure be greater than 1MPa)



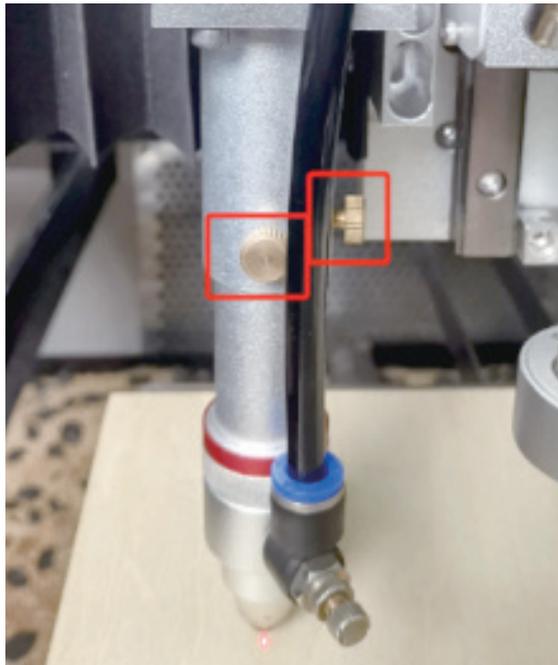
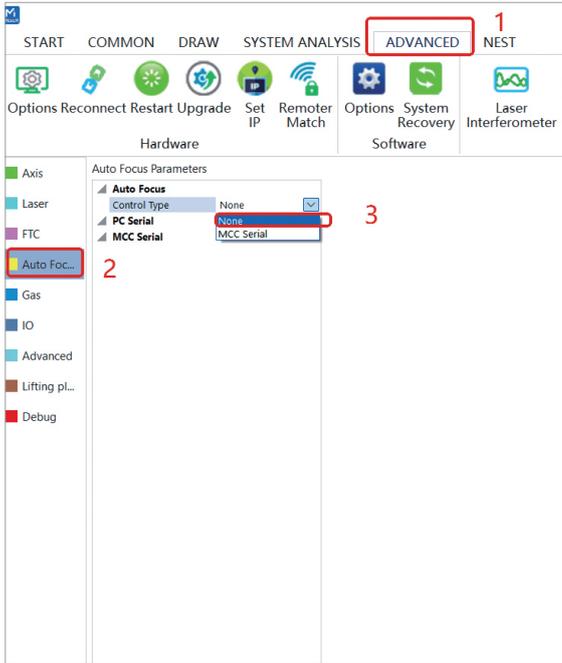
Note: Do not directly return to the origin after modification. It is recommended to first return the X-axis to the origin separately, then return the Y-axis to the origin. Restore the stop delay time in the advanced parameters of the air-cooled welding machine.

2. CNC Quenching

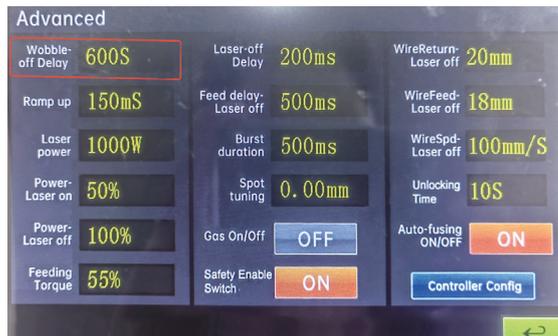
Step 1: Connect the signal line of the laser to the back of the machine bed. Move the Z-axis and W-axis rulers for measurement, ensuring the height from the plate to the center of the side screw hole of the gun head is **12cm**.



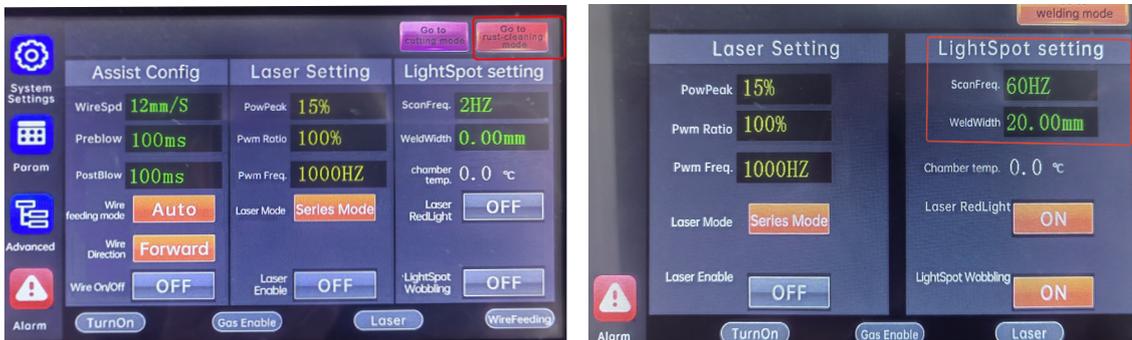
Step 2: Shield the height adjuster, remove the height adjuster cable, take off the extension tube at the bottom of the cutting head, and adjust the CO₂ laser head to the highest position.



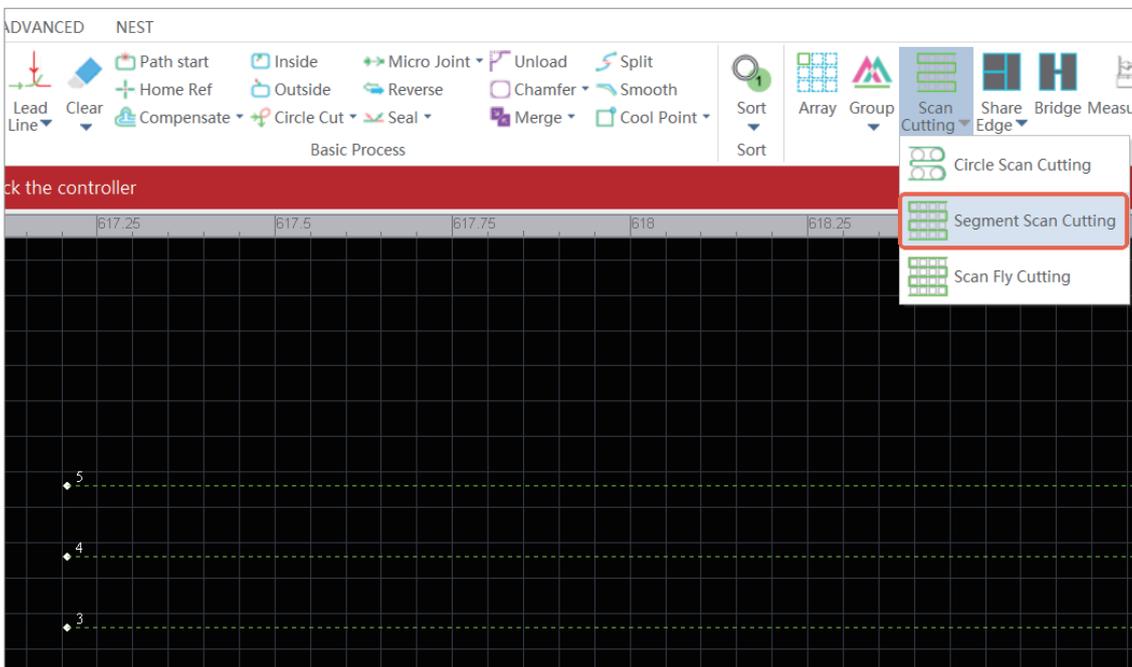
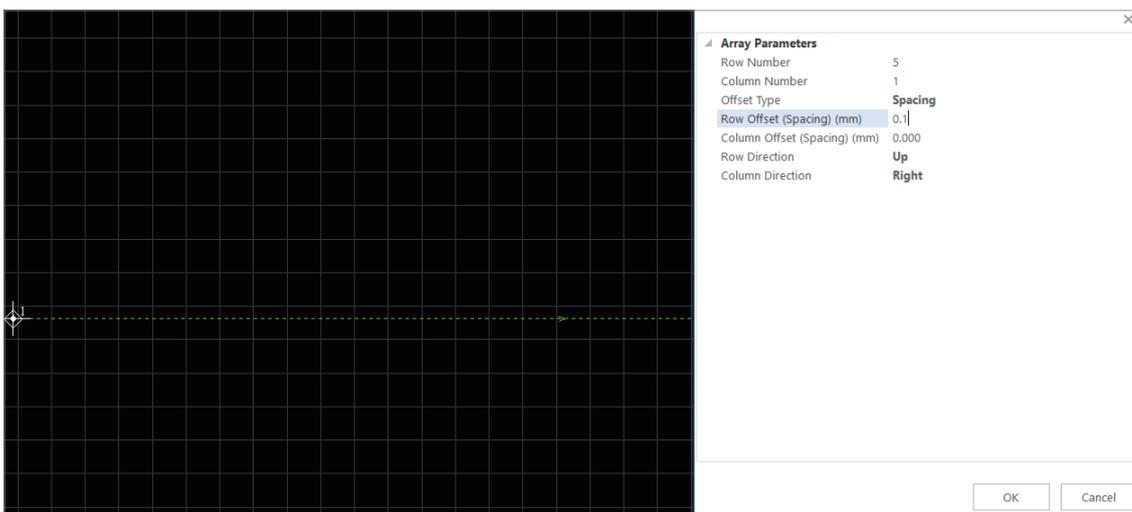
Step 3: Adjust the stop delay time in the advanced parameters of the air-cooled welding machine. Advanced parameters - Password: 2000.



Step 4: Switch the control interface of the air-cooled welding machine to cleaning mode with the password 5000, and adjust the frequency and swing width. It is recommended that the maximum frequency be 60Hz and the maximum width be 10mm. (Since the signal line of the laser is connected to the machine, the power can only be modified in the cutting software.)



Step 5: Draw lines (set the length according to the material size), array (set the quantity according to the material size), and set the line spacing to about 18mm (slightly less than 20mm). Select the graphics and then choose straight line flying cut.

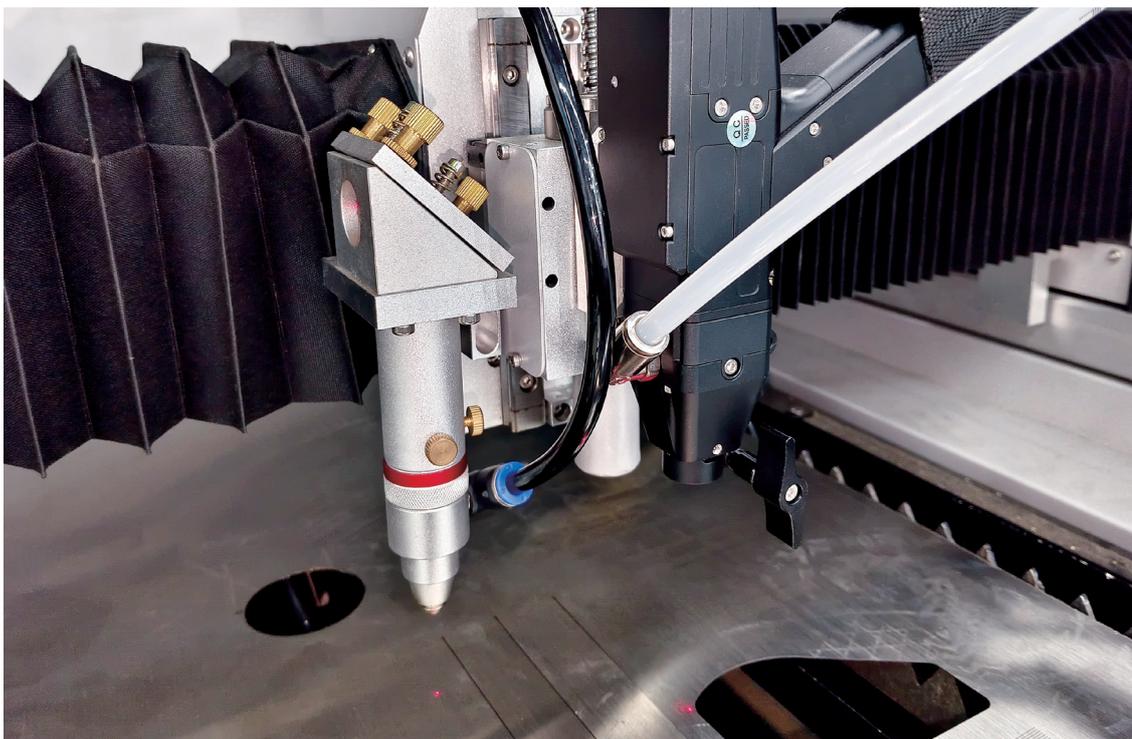


Step 6: Parameter settings, including fixed-height cutting, speed settings, air pressure and other parameters (power is determined according to the plate thickness and quenching hardness). The frequency and swing parameters are modified on the welding machine, and only the speed and power can be modified in the software.

The screenshot displays the software's parameter configuration window. It is divided into several sections:

- Run Params / Layer Parameters:** Includes radio buttons for 'Standard c...', 'Fix Height ...', and 'Adv Fix Hei...'. Below are checkboxes for 'Uncut', 'Unfollow', 'Short Unlift' (checked), 'Short Keep ...', 'Keep Gas On', 'PreDrill', 'With Film', and 'Smooth pie...'. There are also tabs for 'Cutting', 'perforation', and 'advanced'.
- Parameter Lists:**
 - Cut Basic:** Cut Height (mm) 1.000, Cut Speed (m/min) 0.500.
 - Adv Fix Height:** (No numerical values shown).
 - Cut Laser:** Cut Power (%) 100, Cut Freq (Hz) 5000, Peak Current (%) 55.
 - Cut Gas:** Gas Type **High N2**, Gas Pressure (bar) 0.850.
 - Delay Parameters:** Laser On Delay (ms) 10, Before Laser Off D... 0, After Laser Off Del... 0.
 - Adv Parameters:** Up Height (mm) 15.000.
 - PreDrill Process:** (No numerical values shown).
 - Start work Segment:** Enable.
 - End work Segment:** (No numerical values shown).
- Graph:** A line graph with 'P(%)' on the vertical axis (0 to 100) and 'V(%)' on the horizontal axis (0 to 100). A yellow curve starts at (0,0) and rises to (100,100). A legend indicates 'Smooth Ty Defeat'.
- Dynamic Settings:** Dynamic Power, Dynamic Freq.
- Notes:** A text area for user notes.
- Buttons:** Export technology, Copy, Paste, Import, Export, OK, Cancel.

Step 7: Run the border to check if the entire area can be covered. Start the process after confirmation. (It is recommended that the air pressure be greater than 1MPa)



Note: Do not directly return to the origin after modification. It is recommended to first return the X-axis to the origin separately, then return the Y-axis to the origin.

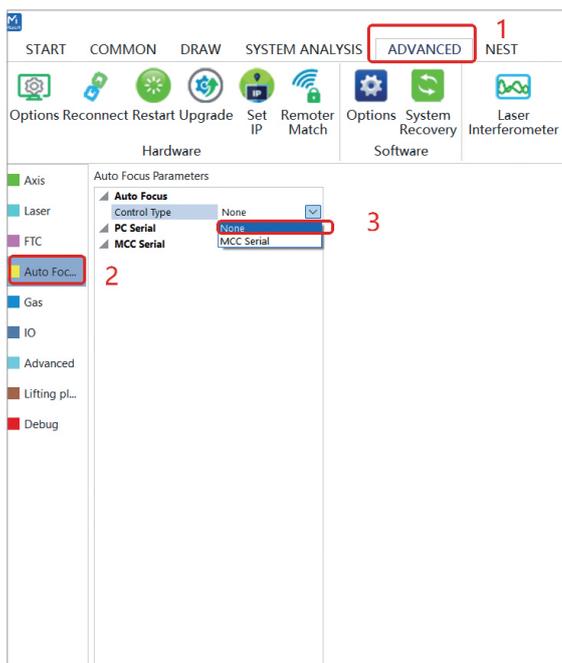
Restore the stop delay time in the advanced parameters of the air-cooled welding machine.

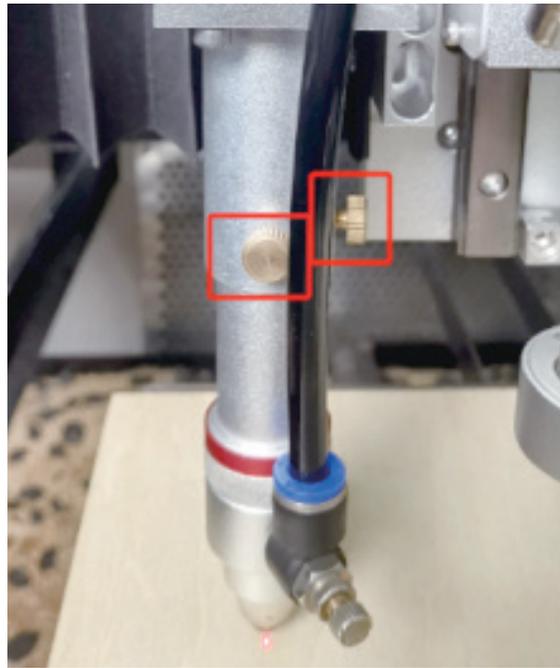
3. CNC Welding

Step 1: Connect the signal line of the laser to the back of the machine bed.

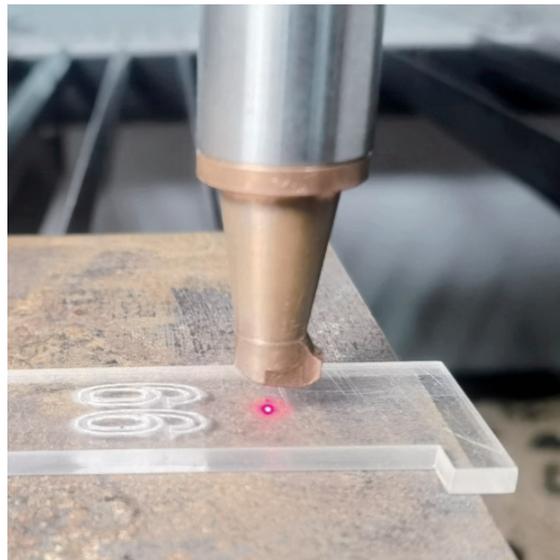


Step 2: Shield the height adjuster, remove the height adjuster cable, take off the extension tube at the bottom of the cutting head, and adjust the CO₂ laser head to the highest position.

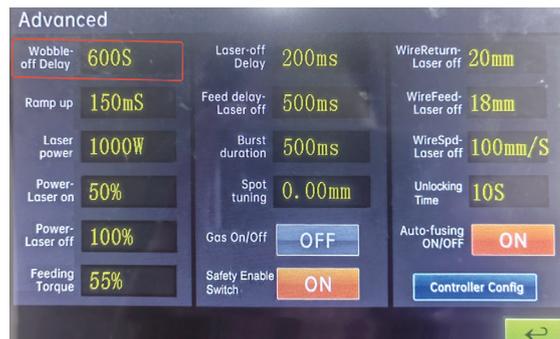




Step 3: Install the welding-specific nozzle, with the distance between the nozzle and the pipe being approximately 3-5mm.



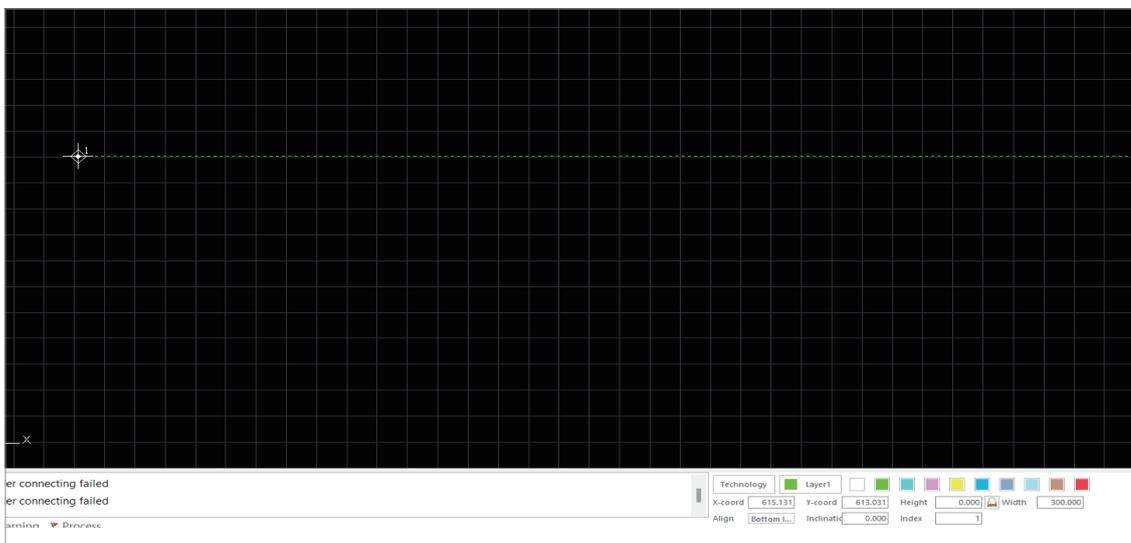
Step 4: Adjust the stop delay time in the advanced parameters of the air-cooled welding machine. Advanced parameters - Password: 2000



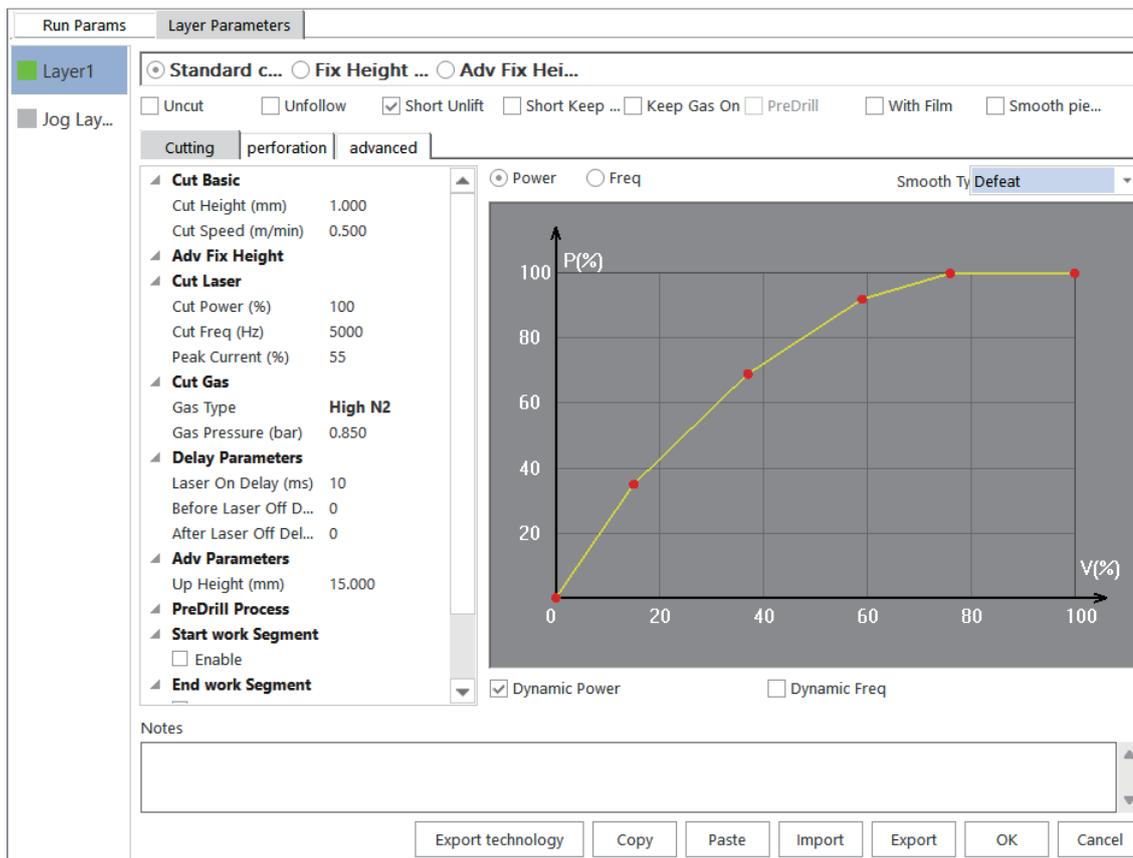
Step 5: Use the welding mode on the control interface of the air-cooled welding machine.



Step 6: Create a single straight line (set the length according to the pipe diameter and add 5mm).



Step 7: Parameter settings, including fixed-height cutting, speed settings, air pressure and other parameters. The frequency and swing parameters during welding are modified on the welding machine, and only the speed and power can be modified in the software.



Step 8: Run the border to check if the entire area can be welded. Start the process after confirmation. (It is recommended that the air pressure be 0.3MPa)



Note: Do not directly return to the origin after modification. It is recommended to first return the X-axis to the origin separately and restore the stop delay time in the advanced parameters of the air-cooled welding machine.