

Troubleshooting Guide for Laser Cutter-X5

Coolant Leakage

If coolant is leaking near the laser unit, it could indicate worn tubing, failing seals, or issues with the chiller system. Reduced cooling efficiency often results in overheating warnings and inconsistent laser performance. Checking the coolant filter for clogs and ensuring proper circulation can help mitigate the problem.

Overheating Motor

Temperature warnings or a drop in laser power are signs that heat isn't being managed effectively. Dust buildup on heat sinks and poor ventilation can make overheating worse. Regular cleaning and ensuring the power supply is stable can help maintain operational stability.

Tool Misalignment

If the laser beam is not cutting accurately, the alignment of mirrors and focusing lenses might be off. This can result from prolonged usage, accidental impacts, or inconsistent machine calibration. Regular mirror and lens adjustments using an alignment tool can help maintain cutting precision.

Excessive Vibration

Excessive vibration in a laser cutter can disrupt the cutting path and cause defects in the material. Loose mechanical components, unstable worktable surfaces, or misaligned linear rails can contribute to this issue. Inspecting machine stability, securing moving parts, and recalibrating the rail system can help minimize vibrations.

Additional Notes:

- Alignment of the laser should be checked periodically, as minor shifts over time can lead to cutting inconsistencies.