Safety Procedures

xTool P2S 55W Desktop CO2 Class 4 Laser Cutter

Standard Operating Procedures

IMPORTANT! Only Authorized Users may operate the laser cutter. Failure to follow safety procedures will result in a loss of operator privilege.

WARNING! The XTool P2S Laser Cutter is a Class 4 laser. Potential hazards include:

- Eye hazard from the direct, reflected, or scattered beam.
- Skin hazard and fire hazard.
- Electrical hazard inside the power supply.
- Laser Generated Air Contaminants.

Authorized Users:

- Must complete the xTool Laser Cutter Canvas training course.
- Must complete a “skills test” with the Operations Manager or other SCiL staff before using the laser cutter unsupervised.
- May supervise or train others to use the laser cutter, however unauthorized users may never use the laser cutter unsupervised by an authorized user.

Safety Procedures:

- Do NOT operate when any part of it is removed. Removing parts may expose the laser system and cause damage to the device and user.
- Do NOT leave the device unattended when in operation.
- In the event of an emergency, there is a big red ‘emergency stop’ button on the right side of the device.
- When using, where safety goggles capable of shielding eyes from 10500 nanometers(nm), ± 5 nm laser beams.

- Do NOT put your hands in the processing area or open the lid when in operation.
- IF YOU ARE BURNED BY LASER BEAMS: disinfect the skin with povidone-iodine solution immediately, and apply burn ointment.
- Do NOT engrave or cut materials containing PVC, vinyl, or other chlorine-based substances, as they release harmful corrosive vapors and can damage the device.
- The laser heats and vaporizes material surfaces, which can ignite flammable materials, especially during vector cutting (acrylic is particularly flammable).
- FIRE PROTOCOL
  - If safe to do so: manually cut off the heat source by lifting the lid, attempt to blow out the flames, or use a damp towel to extinguish the flames.
  - Use a fire extinguisher to put out the flames if the previous methods would be unsafe.
  - If the fire can not be safely extinguished, call 911.

IMPORTANT! Any fire that is too big to be blown out must be reported to the SCiL Operations Manager immediately after the fire has been put out, so follow up maintenance can be made.

Please contact the SCiL Operations Manager with any equipment or safety concerns so proper maintenance can be ensured.
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