Thunder Laser Nova 35 100W Laser Cutter

Nova35 100W

Tool Type: Laser cutter
Location: Elings 3430
Description: Laser cutter and engraver
Manufacturer: ThunderLaser USA

About

The Nova35 is a 100 Watt CO2 laser cutter with a 60cm x 90cm (23.6” x 35.4”) bed. It requires training to use, as well as an FBS reservation. Three different cutting heads are available for use: The standard 2” head for most applications, a 4” head for cutting materials thicker than 10mm (0.4”), and a high resolution head for cutting & engraving the finest features. More info about laser cutter head selection and installation here.

This laser cutter uses a software package called Lightburn for both layout and cutting. Through this software, you can control almost every aspect of the laser cutter. These instructions will help you perform a basic cut or engraving. For additional information, please look through the Official Lightburn Documentation.

Safety Concerns

This machine uses a class 4 carbon dioxide (CO2) laser that emits intense and invisible laser radiation. Without safety precautions the direct radiation or even diffuse reflected radiation is dangerous!

- NEVER leave the laser machine alone when running a job. If you do need to leave, make sure there is someone else nearby who is aware that it is on and cutting.

- The machine door must be left open while you are away.
- Do not store any flammable materials in the inside of the device or in the immediate vicinity of the device.
- Remove leftovers of previously produced materials before running a job.
- A fire extinguisher/fire blanket must always be handy as the laser beam can ignite flammable materials.
- Metals, particularly un-coated aluminum, copper in particular, silver and gold, cannot be processed with the laser and lead to high reflections of the laser beam.
- Before processing materials the user must verify whether harmful materials can be generated and whether the filter equipment of the exhaust system is suitable for the harmful materials.
- PVC (polyvinyl chloride) must under no circumstances be processed with the laser.
- Looking directly into the laser can cause retinal damage.
- Confirm that the fume collection system is running whenever the laser is cutting or engraving.
- Ensure that the air-assist is working properly before firing the laser. If the air assist is malfunctioning, the laser cannot be safely operated.

Training Documentation

Laser Cutter Training SOP

Detailed Specifications

- Working area (W x D): 90 cm x 60 cm or 35.4“ x 23.6”
- Max. height of workpiece : 230 mm or 9“
- Overall dimensions (W x D x H): 1500 x 1105 x 1040 mm or 59.1” x 43.5“ 40.9”
- CO2 Laser power: up to 100W
- Laser class:4
- Weight: 310 kg or 680 lb
- Power consumption: 1 ~ AC 110-230V 50/60Hz, 1.3 kW (60 watts)
- Resolution: 500 DPI standard, 1000 DPI with High-Res head

Reference Documentation

Marking Tape/Paint
Bonding Acrylic with Methylene Chloride
Thunder Laser Manual

Laser cutting data