

# Laser Machine Specifications

JML DOC #: 30660158

- Must have a 36" x 24" x 9" work area
- Must be a grid-style cutting table
- Must have the capability to cut leather, fabric, rubber, paper, wood, and acrylic
- Must have the capability to engrave leather, bare metal, rubber, paper, wood, fabric, and acrylic
- Must include a "status" light on the machine
- Machine must have dimensions: 53" x 32" x 40" +/- 1"
- Must be a dual source laser that includes: 80 watt CO2 laser and 50 watt fiber laser
- Must be an air cooled laser machine
- Laser tubes must be made of metal and ceramic
- Must include a 2" CO2 lens
- Must include a 3" fiber and dual source lens
- Must have a touch screen control at the laser
- Machine must be able to store at least 1 GB of memory (For saving templates we use often)
- Engraving speed: 165 IPS (4.2 m/s)
- Electrically it must be a plug in machine with 110 V, 60 Hz, single phase power
- Must be approved through C/106 prior to purchase of any model machine
- Must be approved through C/109 prior to purchase.
- Must come with an internal filtration system option for purchase that will work in conjunction with laser machine. The filtration system must also must be approved through C/106 before purchase.
- If the laser machine is not UL listed it must have the option to purchase a NRTL certification, to be performed at the factory, prior to delivery to PSNS.
- If the laser machine normally comes with a camera externally or internally, it must be disabled at the factory
- If the laser machine comes with WIFI capability, it must be disabled at factory
- Resolution must be user controlled, 75 to 1200 DPI
- There must be a 2 year warranty included the purchase covering all parts on the machine

## Fume Extractor System specification

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- Must be an internal filtration system, no outside exhaust systems
- Machine must have a footprint of: 4' x 2' x 3' +/- 1"
- Cabinet construction must be brushed stainless steel
- Airflow/pressure: 500cfm/100m bar
- Electrical: 115v, 60/50hz
- Must weigh under 350 lb.
- Noise level: <63dBA
- Surface media area: 30m2 approx
- Machine must use a HEPA filter and filter media must be borosilicate
- Filter efficiency: At least 95%
- Filter house: Must be constructed of mild steel
- HEPA filter media must be Borosilicate
- Machine must be approved through C/106 safety and health before purchase
- Must be UL listed and come with supporting certification documents. If not UL listed then the machine must have a NRTL certification at a minimum with certification documentation to support inspection.
- Must be compatible with laser machine purchased on this contract, this system is to work with that machine

-Must include all hose connection kits that connect extractor to laser machine

# **NRTL Test and Inspection for Laser machine**

## **JML DOC: 30660160**

-Laser machine must have a NRTL test and inspection performed at the manufacturer prior to shipping to PSNS per C/106 approval

-NRTL testing standards must be performed in accordance with UL 61010

-A Label plate must be installed on the laser machine stating the UL listing in a visible location

-All testing and testing results must be printed in a report and sent with the machine upon arrival to PSNS

-NRTL testing must include the following with results in the report:

- \*Dielectric strength

- \*insulation resistance test data

- \*Voltage and current readings

- \*Component temperature rise data

- \*E-stop and interlock test

- \*Grounding continuity test

- \*Leakage current test

- \*Cord strain-relief pull test

## Laser Machine Specifications

-Must include basic onsite training from the vendor for setup included in quoted price, C/702 can work with the vendor to set this up once a contract has been awarded and a delivery date is known.