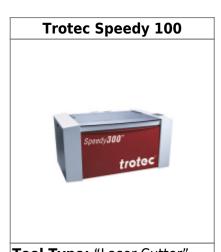
# **Trotec Speedy 100**



**Tool Type:** "Laser Cutter" **Location:** "Microfluidics lab"

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**Description:** "Laser Cutter" **Manufacturer:** "Trotec"

#### **About**

One of two laser cutters, the Trotec is located in the Innovations Workshop above its fume extractor. Both laser cutters utilize CorelDraw as a 2D sketch manager which is then imported into Trotec's specific cutting software. CorelDraw can be used to create the 2D sketch, however importing a DXF file or PDF into CorelDraw from Solidworks or other CAD packages is preferred due the CAD packages integrated features and functions.

### **Safety Concerns**

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

- Always wear safety glasses when using the machine.
- Always work with the machine cover closed.
- NEVER leave the laser machine alone when running a job. If you do need to leave,
- 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. If needed, metals can be coated with a paint/tape which chemically bonds to the surface when engraved.
- 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.

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# **Training Documentation**

Laser Cutter Training SOP

# **Detailed Specifications**

Work Area: 910 x 305 mm Max Workpiece Height: 125 mm

Laser Power: 10-60 Watts

#### **Reference Documentation**

Marking Tape/Paint

**Atmos Compact Operation Manual** 

Service Manual

Plastic Processing Guide

Job Control Software Manual

Bonding Acrylic with Methylene Chloride

Laser cutting data

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