

~ FABRICATION ~

OPERATING INSTRUCTIONS



INTRODUCING



the



LASER CUTTERS



Laser Cutting Machines 1- 5 in Laser Space

Access Level 2 - (see Laser Space Induction Guide on Access Levels)

Laser cutting machinery which allows cutting and engraving of a wide variety of materials including fabrics, papers, woods, plastics and more

What to do before use

- Check compressor is ON, report any faults to any member of workshop technical staff
- Check extraction is ON, report any faults to any member of workshop technical staff
- VISUAL check of the machine for signs of damage to machine or electrical supply system, report any faults to any member of workshop technical staff
- CHECK INTERLOCK is working, report any faults to any member of workshop technical staff
- CHECK FLOORING CONDITION - no cables trailing from hoover or debris from laser machine

How to use these Laser Machines

- Refer to any OPERATING INSTRUCTIONS given during training or timetabled workshops
- The main power supply to the Fabrication area must be ON

- **The COMPRESSOR needs to be ON BEFORE starting to work – this is found in the wooden store cupboard OUTSIDE the Fabrication area. Ask a member of staff for the key to this store cupboard and switch ON the BLUE compressor (labelled hydrovane) - PRESS THE GREEN BUTTON once to START the compressor.**
- **The extraction system MUST BE RUNNING whenever the laser machine is cutting or etching – see separate operating instruction sheet**
- **Turn the relevant (see below) LARGE RED dial labelled ‘extraction’ to the ON position and press the GREEN button once**
- **THE CONTROL SWITCH ON THE LEFT controls the 2 x 30 watt machines (1 & 2)**
- **THE CONTROL SWITCH ON THE RIGHT controls the 30watt, 200 watt and 10 watt machines (3, 4 & 5)**
- **If you are using the 200watt machine (number 4) you MUST follow the ‘cooling unit procedure’ labelled in red next to the machine**
 - Turn ON cooling unit in CNC room
 - Turn ON the laser cutting machine
 - Turn ON extraction
 - ONLY turn OFF cooling unit once cutting is COMPLETE
- **Turn ON the Laser machine you are using with the GREEN button to the left, you MAY need to RELEASE the red EMERGENCY STOP button first by twisting it GENTLY – the button will pop-out once released**
- **CAREFULLY PLACE your material in the machine MAKING SURE it is flat. If necessary, use weights or masking tape to keep it in place**
- **SET the cutting area using the keypad to ‘load media’: ‘set origin’ and ‘set media’**
- **SET the focus, using the focus tool to put the laser nozzle 11mm away from the material**
- **Use the computer which is paired with the laser machine you will be using**
- **Open Aps Ethos which will be on the desktop**
- **For Vector files (Ai.) follow Section 1.**
- **For Photographic files (Jpeg) follow Section 2**
- Section 1**
- **Open your file**
- **Assign ‘cutting effects’ to your vector lines**
- **Red = Cutting, Green = Engraving, Blue = No cut**
- **Apply ‘scan lines’ where necessary**

- **Choose your material setting**
- **Edit your power settings where necessary (remember to return to original settings when you have finished)**
- **Send your design to the laser cutter**

Section 2

- **Open a new blank document**
- **Insert Image**
- **Open 'Object properties' tick 'enable engraving' and 'use images'**
- **Choose your material setting**
- **Edit your power settings where necessary (remember to return to original settings when you have finished)**
- **Send your design to the laser cutter**

- **Once your cutting is finished remove it CAREFULLY from the laser machine**
- **REMOVE any debris from the laser machine bed**
- **Turn OFF the laser machine and extraction system unless other people are waiting to use it**
- **Leave the area CLEAN and TIDY**

Date

I verify that I have read and understood the information detailed within this document

Name

Signature