

**ISTITUTO MARANGONI LONDON**  
**LASER CUTTER AND MATERIAL USAGE POLICY**  
**JUNE 2023**

### Version Control Statement

<b>Version</b>	1.0
<b>Document title</b>	Istituto Marangoni London Laser Cutter and Material Usage Policy
<b>Document approved by</b>	Finance and Resources Committee
<b>Approval date</b>	June 2023
<b>Last Reviewed</b>	June 2023
<b>Date for review</b>	July 2024

## **Laser Cutter and Material Usage Policy**

### **Purpose:**

The purpose of this policy is to ensure the safe and responsible use of materials in the laser cutter within Istituto Marangoni London. By following this policy, we aim to protect the well-being of our Students and employees, prevent damage to the laser cutter, and maintain a secure working environment.

### **Scope:**

This policy applies to all individuals operating laser cutter within Istituto Marangoni London, including employees, contractors, Students and any other authorised users.

### **Policy:**

#### **1. Approved Materials:**

- a. Only materials that are explicitly approved for use in the laser cutter by the laser cutter manufacturer are permitted. The approved materials list will be maintained by the Design Studio technicians
- b. Before using any material in the laser cutter, operators must ensure it is included in the approved materials list.

#### **2. Prohibited Materials:**

- a. The following materials are strictly prohibited from use in the laser cutter due to safety risks or potential damage to the equipment:
  - Materials containing chlorine, such as PVC (Polyvinyl Chloride).
  - Materials containing vinyl or vinyl chloride.
  - Any material with unknown composition or unknown safety risks. The list of prohibited materials will be regularly updated by the Design Studio technicians upon notification from the laser equipment manufacturer.

#### **3. Material Testing and Evaluation:**

- a. If a Student wishes to use a material that is not currently on the approved materials list, and that is not in the prohibited list, they must request a material testing and evaluation process through the Programme Leader of their course. The request will have to include a safety data sheet of the proposed material.
- b. The material testing process will assess the suitability, safety, and compatibility of the material with the laser cutter.
- c. No unauthorised materials may be used until they have successfully passed the material testing and evaluation process.

#### **4. Training and Authorisation:**

- a. Individuals operating the laser cutter must undergo comprehensive Induction on material usage, safety procedures, and emergency protocols before being authorised to use the equipment.
- b. Authorisation to use the laser cutter is granted by the Design Studio technician based on successful completion of the Induction training.

#### **5. Safe Operation:**

- a. Operators must follow all safety guidelines and standard operating procedures (SOPs) provided by Istituto Marangoni London when using the laser cutter.
- b. Proper ventilation, personal protective equipment (PPE), and fire safety measures must be strictly adhered to during laser cutting operations.

#### **6. Reporting and Compliance:**

- a. Any concerns, incidents, or near-misses related to material usage in the laser cutter must be promptly reported to the Design Studio technician and the Facilities Supervisor.
- b. Failure to comply with this policy may result in disciplinary action, including the revocation of laser cutter privileges.

When laser cutting, it is essential to adhere to certain precautions to ensure safety and minimise risks. Here are the key precautions to follow:

#### **1. Personal Protective Equipment (PPE):**

- a. Wear appropriate laser safety eyewear that is specifically designed for the laser being used.
- b. Use protective gloves to handle materials and avoid direct contact with hot or sharp edges.
- c. Wear closed-toe shoes and avoid loose clothing or jewellery that could get caught in the laser cutter.

#### **2. Ventilation:**

- a. Ensure proper ventilation in the laser cutting area to remove fumes and smoke generated during the process. Use local exhaust ventilation or air filtration systems as necessary.
- b. Do not operate the laser cutter in confined spaces without proper ventilation.

### **3. Material Compatibility:**

- a. Use only materials that are approved for laser cutting and are compatible with the specific laser cutter being used. Refer to the laser cutter's user manual or guidelines provided by the manufacturer.
- b. Avoid using materials that are known to release hazardous gases or produce toxic fumes when laser cut.

### **4. Fire Safety:**

- a. Have appropriate fire extinguishing equipment, such as a fire extinguisher or fire blanket, readily available in the laser cutting area.
- b. Do not leave the laser cutter unattended during operation.
- c. Keep a clear and unobstructed path to emergency exits in case of fire or other emergencies.

### **5. Maintenance and Inspection:**

- a. Regularly inspect the laser cutter for any signs of damage, wear, or malfunction. Follow the manufacturer's recommended maintenance schedule.
- c. Ensure that the laser cutter is properly calibrated and aligned to avoid any unintended effects on the cutting process.

### **6. Operator Training:**

- a. Ensure that operators have received comprehensive Induction on laser cutter operation, safety procedures, emergency protocols, and proper handling of materials.
- b. Familiarise yourself with the specific controls, settings, and limitations of the laser cutter you are using.

### **7. Safe Work Environment:**

- a. Keep the laser cutting area clean and free of clutter to prevent accidents or obstructions.
- b. Clearly mark and secure any potential hazards, such as power cords or trip hazards.
- c. Restrict access to the laser cutting area to authorised personnel only.

### **8. Emergency Preparedness:**

- a. Establish clear procedures for handling emergencies, such as fires, power outages, or equipment malfunctions.
- b. Ensure that operators know how to safely shut down the laser cutter in case of an emergency.

### **Review and Revision:**

This policy will be periodically reviewed by the Health and Safety Management Group to ensure its effectiveness and relevance. Detailed revisions (including yearly revisions) will also be submitted to the relevant Committees for formal approval before any changes are implemented.

Any necessary updates or revisions will be communicated to all laser cutter users via a refresher induction.

By following this policy, we aim to maintain a safe working environment while optimising the use of the laser cutter within Istituto Marangoni London.

London, 22nd May 2023,

**Valérie Berdah-Levy, London School Director**

Abdullah Abo-Milhim, London School Director of Education

Roberta Di Dio, London School Facilities Supervisor