

~ FABRICATION ~



PLASTICS

OPERATING INSTRUCTIONS

INTRODUCING



PLASTICS

the



VACUUM FORMER



CR Clarke Vacuum Former Machine

Access Level 1 – (see Metal Workshop Induction Guide on Access Levels)

Unit designed to drape and form heated thermoplastics over a master mould

PPE Basic

- Suitable work coat (provided)
- Spectacles, goggles or face shield rated to BS/EN 166 (provided)

What to do before use

- **CHECK** mains plug integrity; cracks in plug moulding, damage to the pins, bare wires visible, cable not secured via strain relief
- **CHECK** the mains lead from the plug to the machine; looking for signs of damage to the outer core – melting of cable, lacerations and cuts in the outer sheath leading to exposed inner wires, exposed copper wires, gouges, twists in the cable, crushing of the cable, heat damage, puncture of the outer cable
- **CHECK** the machine completely, paying particular **ATTENTION** to the **CONTROLS** on the machine; are they loose or damaged, any of the panels loose or damaged, the frame and fixings in good order, the moulding plate **RISES** and **FALLS** easily and is in **GOOD ORDER**, the heater box moves to and from the face of the heated plastic
- **MAKE SURE** the plastic sheet clamps are set to the correct **THICKNESS** of material **BEFORE** heating. If the clamps are **NOT** tight enough, the plastic will pull underneath the clamps, losing vacuum integrity, and you will waste a sheet of material
- **GOOD** ventilation? These plastics emit **INVISIBLE ODOURS** which can be unpleasant and may contain very small amounts of **VOLATILE ORGANIC COMPOUNDS (VOC's)** – which are **UNLIKELY TO BE HARMFUL** long- or short-term, but some people are sensitive to them and may feel ill as a result

How to Use This Vacuum Forming Machine

- Refer to any **OPERATING INSTRUCTIONS** that may be offered during training or timetabled workshops (if student or staff)
- **ENSURE** only 1 person is operating the machine and the heating controls
- **ENSURE** the area is ventilated **BEFORE** switching on the machine
- Place your mould **CENTRALLY** on the rising plate, covering any large central hole at the core – or cover with a small offcut of wood if the mould placement is off-centre
- **PLUG IN THE MACHINE** to a fused, 230 volt 3-pin socket
- Switch **ON** the machine via the **O/I** switch – which should be marked as such as is usually a rocker-type switch on the **FRONT** panel
- If using a large mould, set **ALL** the heating element zones to **ON** and to **FULL** power, to quickly heat-up the quartz heating elements. **DO NOT** attempt to ‘feel’ if the heaters are hot. It is normally **GOOD PRACTICE** to leave the heaters on for at least **TEN MINUTES** before attempting to form anything
- **ENSURE** the moulding plate is lowered down **BEFORE** placing a cold sheet of plastic; either **HIPS** (High Impact Polystyrene) or **ABS**
- The plastic **MUST** cover the rubber beading surrounding the moulding plate **PLUS** a minimum of 5-10mm extra around it

Date

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

Name

Signature