Operator Manual

Warning: High Voltage electronics in use. Machine should not be operated unless electronics are properly grounded and the box is closed.

Initial Prep:

1. Open mold by turning screw on car jack counter-clockwise
2. Clean inside surfaces of mold
3. Be sure that the aluminum middle plate is on the alignment pins and resting flush on the bottom plate.
    a. If the aluminum mold is attached to the top plate, use a screwdriver to seperate
4. Liberally apply mold release to all surfaces of the mold that will be in contact with plastic
5. Check that all wiring is secure and arranged as shown in the circuit diagram

Applying Plastic

1. While the machine is still off, distribute plastic chips evenly within the mold cavity
    a. Fill the mold up to the edges of the aluminum frame
2. Lower the top plate by turning the screw on the car jack clockwise
    a. Ensure that all of the molds are aligned along the alignment pins on the corners

Electronics

1. Ensure the electronics box is closed before plugging in the machine
2. Plug the cable into a 208 Volt plug (found in the machine shop)
    a. Once plugged in, do not open the box or touch any of the connections to the heaters
3. Turn the switch in the side of the electronics box to the ON position
4. Set the PID to the desired temperature range (PET is 250-350℃)
5. If the system is on, and powering is running to the heaters, a low hum should be heard from the box
6. Use a temperature gun to measure the external temperature of the heaters and compare those to the readings from the thermocouple displayed on the PID

Plastic Melting and Cooling

1. Once the thermocouple reaches the desired temperature range, the plastic will begin to melt and form into the shape of the mold
2. The machine should be left running for _____ hours with adequate pressure applied through the carjack
    a. Turn the carjack clockwise throughout the time period to keep the pressure high
3. After the alloted time, turn the switch on the side of the electronics box to the OFF position and unplug the cable from the outlet
4. Allow the machine to cool for several hours before extraction

Extraction

1. Once the mold has reached a safe temperature, the cavity can be opened by turning the screw on the car jack counter-clockwise
2. The aluminum frame can be removed to allow for easier extraction
3. Use the large putty knife to separate the plastic sheet from the mold
4. Once the plastic is extracted, the mold should be returned to the neutral position (reinsert the aluminum frame and lower the top mold down until flush)