

Standard Operating Procedure Carver Press

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Description of Process

This SOP is dedicated to the proper, safe handling and use of the Carver Press located in FRNY 2181.

Required Training

Purdue School of Chemical Engineering Safety Orientation
P.O.W.E.R. Lab safety orientation (including fume hood induction)

Engineering and Ventilation Controls

The carver press features a polycarbonate door to protect the user during the application of high pressures. Thermal gloves are available in FRNY 2182 when hot pressing is required.

Personal Protective Equipment (while using the carver press)

EYE PROTECTION: Safety glasses or goggles.

PROTECTIVE CLOTHING: Nitrile gloves, lab coat, thermal gloves.

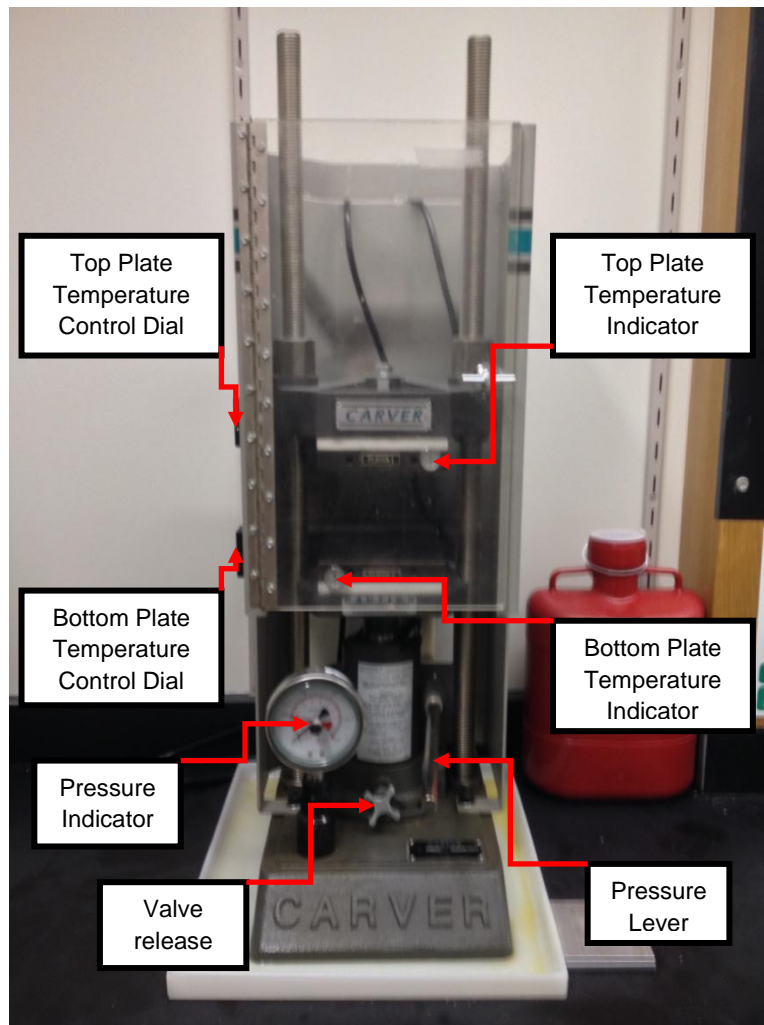
ENGINEERING CONTROL: Protective door, thermal gloves.

Carver Press Operation

1. Sandwich a piece of Kapton film between each side of the sample/template and the top and bottom plates on the Carver Press (Kapton roll located in FRNY 2182). Close the protective door for the pressing cycle.
2. Turn on both temperature dials to heat the plates to a desired temperature if hot pressing prior to use. Ensure thermal gloves are worn.
3. Ensure that the valve release (Appendix 1) is turned completely to the right before using the pressure lever to bring the bottom plate up towards the top plate. **If using the lever requires excessive force at any time, stop immediately and turn the valve release to the left to relieve the pressure. Contact the super-user for maintenance.**
4. Continue using the lever until the desired pressure is reached on the indicator (< 20 tons). **If using the lever requires excessive force at any time, stop immediately and turn the valve release to the left to relieve the pressure. Contact the super-user for maintenance.**

5. After pressing, turn the valve release to the left to lower the bottom plate and remove the sample. Repeat steps 3-4 for multiple samples.
6. When complete, turn the plate temperature dial all the way to zero and close the protective door.

Appendices



Appendix 1. Carver Press setup.