Hot Press

Hot press

Tool Type: “Press”
Location: “Microfluidics Lab”

Supervisor	Tool Lead
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Description: “Hot press”
Manufacturer: “Carver”

About

The Hot Press is a hydraulic press typically used for fitting and embossing. It is equipped with a pressure gauge to indicate clamp force, as well as independent heating control for both platens.

Detailed Specifications

Model 4386

- Manually operated
- Clamping force 12 tons
- Daylight opening 0“ – 15” (Factory set at 5”)
- Stroke 5-1/8”
- Two (2) fully threaded columns
- Heated platen package, including:
- Two (2) 6” x 6” electrically heated steel platens
- 700 watts per platen
- Temperature range up to 650 deg F
- One (1) digital temperature controller per platen

- 0-24,000 lb Analog pressure gauge, reading in 200 lb increments (digital gauge also available)
- 115/1 supply voltage FLA 12.18 (230V option upon request; Model 4386.4010)
- Electrical disconnect (non-fused)
- Dimensions: 22”L-R x 16”F-B x 39”H (uncrated)
- Weight: 300 pounds (uncrated)

Safety Concerns

High heat hazard - use insulated gloves when placing or removing workpieces from the press.
Pinch hazard - keep hands away from clamping area during use.
Projectile hazard - workpiece may fracture under high pressures. Always wear safety goggles and ensure that the clear shield is in the closed and locked position when operating the press.

General Operation

Operation of the hydraulic press:

1) Ensure the platens (metal plates on press surface) are clean and parallel.

2) Place your workpiece on the lower platen, then close the clear shield and lock it by turning the handle clockwise. If your sample is too tall, please contact the lab staff, who can help you increase the maximum gap.

3) Lock the hydraulic press by turning the lower valve clockwise.

4) Raise the lower platen by operating the hydraulic lever.

5) Once your workpiece makes contact with the upper platen, you may read the pressure from the dial to the left of the press. Continue to raise the lower platen until the desired pressure is reached.

6) When you are finished pressing, release the hydrawlic pressure by turning the lower valve counter-clockwise.

7) Remove your sample from the press, then close the clear shield when finished.

Heating the Platens:

1) Finish steps 1-3 above before heating the platens. This minimized the chance of accidentally touching a hot surface.

2) Power on the heating unit to the left of the press. Turn the power dial to the on position, then depress the orange switch – the switch light is on when the tool is on.

3) Set the lower and upper platen temperature using the up and down arrows on corresponding upper and lower displays. The lower number in green is the set temperature, while the upper number in red is the current temperature.

4) When you are finished with the heater, turn off the orange switch, and then turn off the power dial.

5) Remove your sample from the press, making sure to wear insulated gloves if the heater was used, then close the clear shield when finished.

Reference Documentation