

Title:

Hot Embossing Machine

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002

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1 Objective:

This Standard Operation Procedure states how Hot Embossing Machine should be operated.

2 Responsibilities:

2.1 Director / HOD / PI

The Director/HOD/PI has overall responsibility for ensuring a system is established for the safe use of the Hot Embossing Machine.

2.2 Designated Person

There shall be a designated person to oversee the correct operation and maintenance of the Hot Embossing Machine.

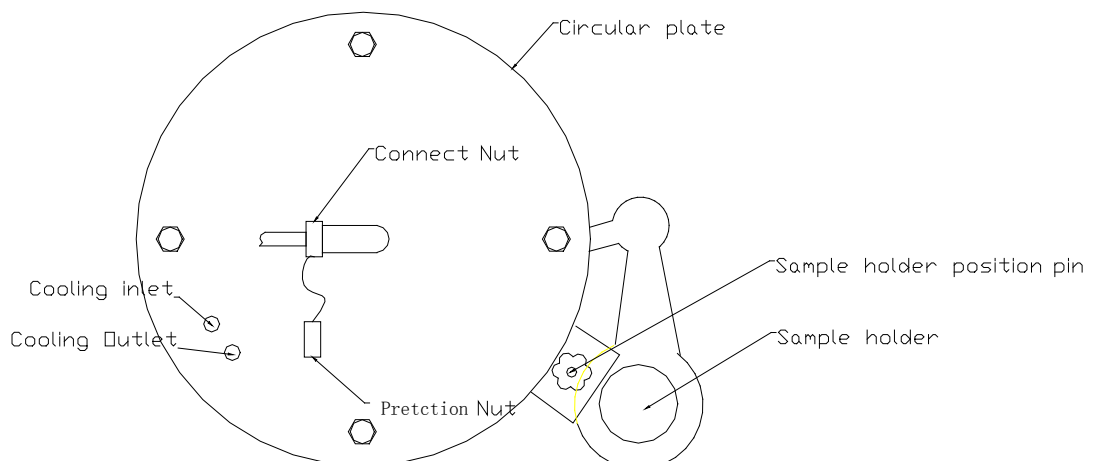
- a. This person shall periodically inspect the Hot Embossing Machine to ensure its operational performance.
- b. He/she will make necessary arrangements for repair works of the Hot Embossing Machine.
- d. He/she will report to the Director/HOD/PI unsafe practices by Hot Embossing Machine users.

2.3 Staff/ Research personnel

- a. Hot Embossing Machine users shall attend appropriate training on the safe use of the Hot Embossing Machine.
- b. Users shall report any injuries, defects or breakdowns to their supervisor.

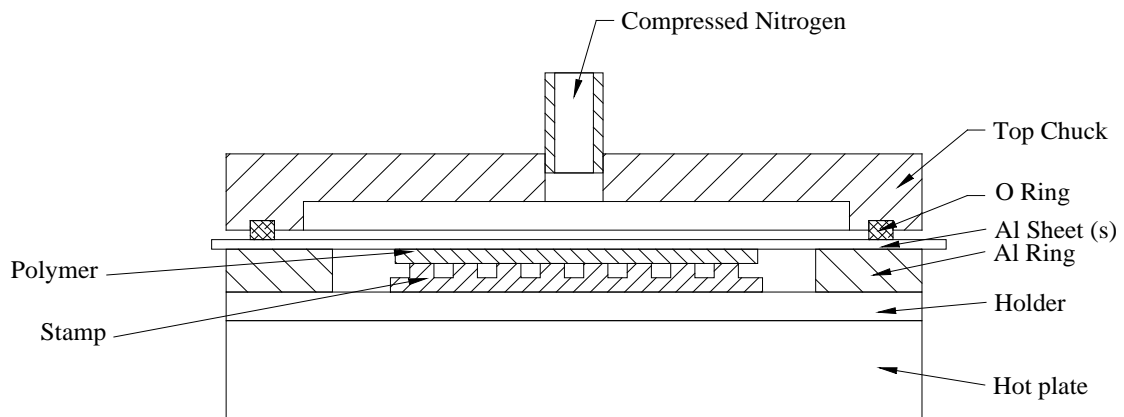
3 Preparation:

- Set the output pressure of the Nitrogen cylinder (outside the clean-room) at 6 Bar.
- Switch on the machine; open the N2 inlet and compressed air inlet.



3.1 Hot embossing procedures

- Place the stamp and polymer sheet in the sample holder.
- **Make sure the larger sample is below!**
- Cover the stamp and polymer sheet with Al sheets



Schematic diagram of this hot embossing system.

- Set the imprint parameters in the control PC (heating temperature, demoulding temperature, pressure and time).
- Run the imprinting program.
- When the program finishes, turn the sample holder out and take the stamp and polymer sheet from the holder.

Switch off the machine, close the N2 inlet and compressed air inlet.

4 References:

Manuals kept on the shelves at S7-01-01A near grey area cabinet.

5 Appendix:

Nil