



# Harrick HP-001 High Power Plasma Cleaner

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## Safety

- To avoid electrical shocks, do not use the system if it is missing panels or electrical equipment is exposed.
- The samples and trays may be very hot after long runs. Use caution.
- In case of immediate electrical, chemical, or physical danger, utilize the red EMO button situated on the front of the equipment.

## Allowed Materials and Processes

This tool is primarily used for bonding PDMS to glass chips.

## Important Equipment Notes

Do not allow the vacuum to run for more than a minute. If it does not stop making noise after closing the door, apply pressure and make sure there's proper contact between the door and the opening of the tool. Failure to do so will damage the vacuum.

## Operating Procedures

1. Bring chip and glass pair to the equipment
2. Switch **"POWER"** to **"ON"** on the Plasma Flo. Switch **"PUMP"** and **"POWER"** on the Plasma Cleaner
3. Turn the door latch knob fully clockwise to vent. Open and place glass plate inside if not already present
4. Place chip and glass slide inside, ensuring that chip is channel side up. Shut the door and turn the door latch knob back counterclockwise. The door latch knob should be vertical at 90 degrees.
5. Turn on the vacuum (found below the table to the left) by pressing the green button, then make sure the door latches by ensuring that there is not continued vacuum sound. Wait until the pressure drops below 0.2 on the Plasma Flo device.
6. Turn the door latch knob fully counterclockwise to allow for some oxygen flow. Activate plasma by turning the knob on the Plasma Cleaner from Off to Hi. You should see plasma strike when the circular window glows purple.
7. Turn the knob on the Plasma Cleaner from "High" to "Off" and turn the vacuum off by pressing the red "X" button, vent and flip the channel side of the chip onto the glass piece.

## Troubleshooting

- The vacuum sound will not go away- The door is not completely latched. Ensure that the elastic on the inside of the door lines up completely with that on the outside of the opening. Apply pressure.



## Version History

- 2024.1 Initial document written by Rea Joshi
- 2025.1 Updated for website accessibility by Owen Bunn