



Oxygen Plasma System

General Information:

The AutoGlow Plasma System for surface treatment to improve adhesion PDMS related device and clean the surface of the substrate to be free of contamination for further precess.

Equipment Specifications:

- Oxygen Plasma
- RF generator maximum 300 W
- RF frequency 13.56 MHz
- Mechanical (Fomblin-oil) pump

Operating Instruction:

_ Safety procedure:

- 1- All samples must be dry prior to put inside the chamber
- 2- Never apply vacuum crease on the sealing gasket
- 3- Use clean gloves at all the time to handle the system
- 4- Make sure the outlet gas pressure on the regulator is 15 psi
- 5- Never leave the system on attendant.

_ Gas Operation:

- 1- Open the compressed O2 gas cylinder valve
- 2- Regulator on compressed cylinder set to 15 PSI
- 3- Open line valve after regulator

_ Loading:

- 1- Set the time for cleaning, later for actual process
- 2- Wear a pair of clean gloves
- 3- Put a clean Thecni Cloth on the top of plasma system
- 4- Open the metal door
- 5- Lay the Quartz door on the Thecni Cloth with care
- 6- Load your substrate
- 7- Put the Quartz door against the O-Ring seal on the chamber and push against the sealing.
- 8- Push the AC button on
- 9- Push the Vacuum button till reaches to 0.22 torr as base pressure

_ Process:

- 1- Set the time to 5 minutes for cleaning the chamber, then set the actual process time.
- 2- Push the Process button
- 3- Abrupt increase in the chamber to 556 torr
- 4- Process pressure must be 0.6 – 1.2 torr
- 5- Finish the process of cleaning for 5 minutes.
- 6- Then load your sample and Set the Actual Time for your process.