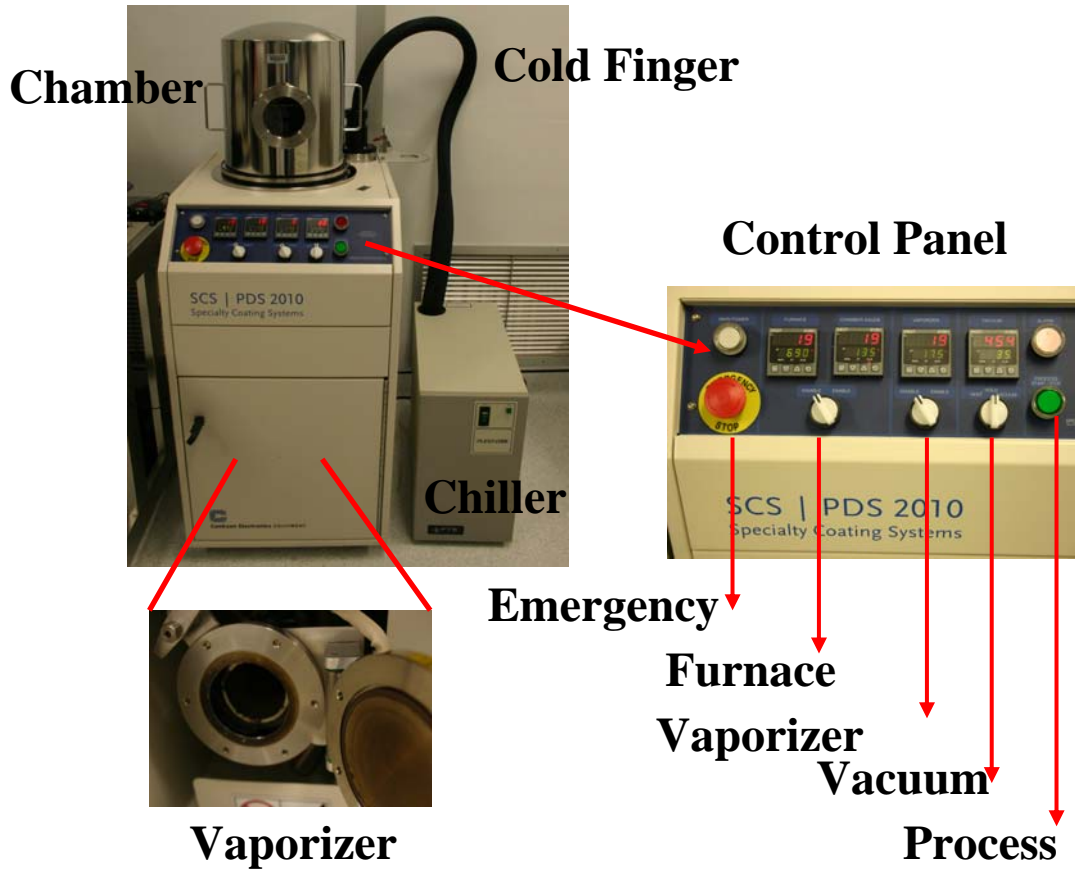


# PDS2010 Parylene Deposition System



## Accessories

# A quick summary of how to operate PDS2010

## *Step 1: Load Sample*

(1) Please Log in



(2) Load Parylene Dimmer

Create Aluminum board → Weigh Parylene Dimmer → Open Vaporization Chamber (VC) → Load Parylene dimmer into the VC → Close VC



(3) Load Sample

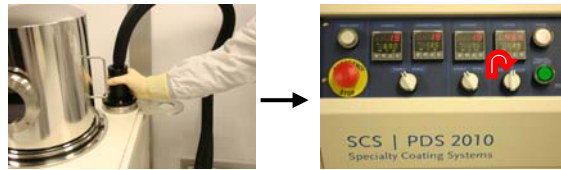
Open chamber → load sample → close chamber



Make sure that the chamber is sealed very well to the plate

## *Step 2: Parylene deposition*

- (1) TURN ON vacuum and wait till the vacuum pressure reaches 0 mTorr or below



Hold cold finger firmly → Turn knob to vacuum

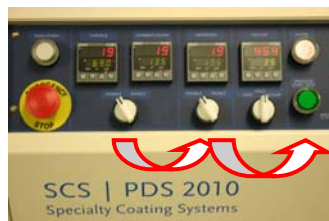
- (2) TURN ON Chiller

When the Vacuum pressure reaches 25 mTorr  
TURN ON mechanical Chiller



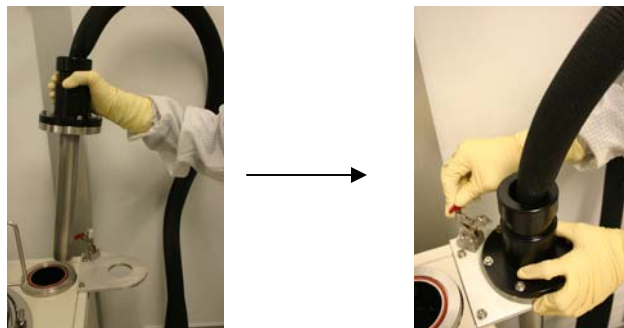
- (3) Start Deposition

- (a) Wait till the vacuum pressure reaches 0mTorr or below (would take 10-30 minutes)
- (b) Enable Furnace → Enable Vaporizer → Start Process



### *Step 3: Unload Sample*

- (1) Make sure that the Furnace Temperature is below 100°C
- (2) TURN OFF the machine
  - (a) Turn off the Chiller
  - (b) Turn the Vacuum knob to HOLD position
  - (c) Disable Furnace → Disable Vaporizer → Stop Process
  - (d) Vent the machine (turn Vacuum knob to Vent)
  - (e) Remove Cold Finger (CF) → Secure CF → Allow CF to cool down for 30 minutes



- (3) Open deposition chamber and Unload samples (you can unload it while CF is cooling down)

#### *Step 4: Cleaning Process*

##### (1) Deposition Chamber

(a) Remove Parylene film from the chamber.  
You can use soap solution if it is difficult to remove which applies for thin film deposition **(DON'T USE TWEEZER NOR RAZOR BLADES)**

(b) Clean the chamber with Soap solution (wet texwipe with soap solution and apply around inner side of chamber)

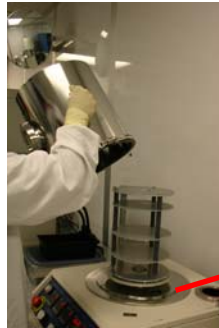
(c) Apply very little high vacuum grease (HVG) on O'Ring



O'Ring

**(DON'T PUT TOO MUCH OF HVG WHICH WOULD CAUSE OUT-GASSING)**

(2) Remove Parylene from the Plate  
(REPEAT 1(a), 1(b)) → CLOSE chamber



Plate

(3) Clean the Vaporization Chamber with  
Isopropyl Alcohol (IPA) then CLOSE VC



(4) CLEAN Cold Finger

(a) Use Deionized (DI) water and Scotch  
brite to clean cold finger

(b) Clean CF with IPA (wet the texwipe  
with IPA and apply around CF)

(C) Apply Soap solution on CF (wet the  
texwipe with soap solution and apply around  
CF)

**(DON'T USE TWEEZER NOR RAZOR BLADES)**

***Step 5: Pump down PDS2010***

(a) Secure Cold Finger and TURN ON vacuum

(b) When the pressure reaches 100 mTorr HOLD vacuum (turn knob to hold position)