

# User's Guide



THE CENTER FOR  
NANOSCIENCE AND  
NANOTECHNOLOGY

CRITICAL POINT DRYER







# Initial Checks and Cleaning (1)

1	<p>Login to control program with your username and password</p>	
2	<p>Switch ON monitor</p> <p>Check that the weight of both CO<sub>2</sub> balloons is above <b>58Kg</b></p>	
3	<p>Switch ON the condenser</p> <p>(located in the chase)</p> <p>Make sure the condenser's valve is open and the end of the tube is inserted into an empty bottle</p>	
4	<p>Switch ON the power button</p> <p>The green LED on the VENT button will light up.</p> <p>Wait at least five minutes before starting CPD process</p>	



# Initial Checks and Cleaning (2)

5	<p>Open process chamber by unscrewing the knurled nuts</p> <p>Place the lid on top several wipes (perforated, crisscross type)</p>	
6	<p>Clean the spacer rings and the perforated basket with IPA using the perforated wipes and dry them with N<sub>2</sub></p>	
7	<p>Clean the inside of the chamber with IPA using a perforated wipe</p>	
8	<p>Replace the spacers and the perforated basket into the CPD</p>	

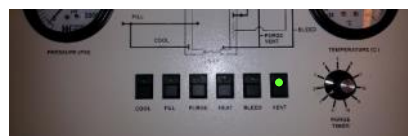


## Loading Samples into Chamber

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Push and hold the Vent button

The VENT LED will begin to blink, indicating that the VENT solenoid is closed



10

Fill the chamber with IPA.

Use enough to cover your chips.

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Place your acid free chips in the perforated basket.

For optimal results do not let samples dry before submerging in IPA filled chamber

**NEVER EXPOSE CHAMBER TO ANY ACIDS!!**



## Securing the Chamber Lid

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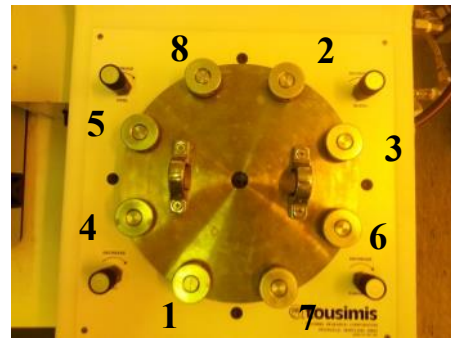
Close the lid and evenly tighten the knurled nuts with your hands.

13

Using the numbered sequence shown in the picture

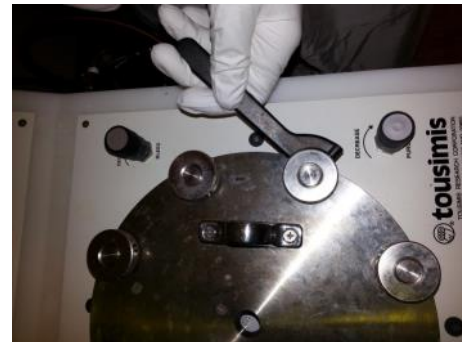
Tighten each knurled nut with the provided spanner wrench

Make sure not to hit flow regulators while tightening nuts!



14

Repeat this “rotation star” sequence until all knurl nuts are unable to tighten further





# Drying Process

15

Set the PURGE timer

Positions of the purge timer are calibrated in five minutes intervals



Purge timer

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General PURGE time guideline for various chamber alcohol levels are the following:

- 1/4 chamber = 10 min purge time
- 1/2 chamber = 15 min purge time
- 3/4 chamber = 20 min purge time

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Press the COOL button.

The COOL LED will go on and the VENT LED will go off.

Cooling will stop automatically when the chamber temperature reach 0 Celsius



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As soon as the cooling process ends.

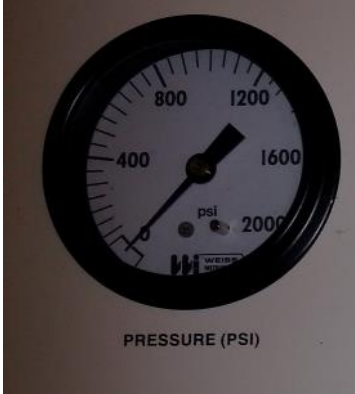
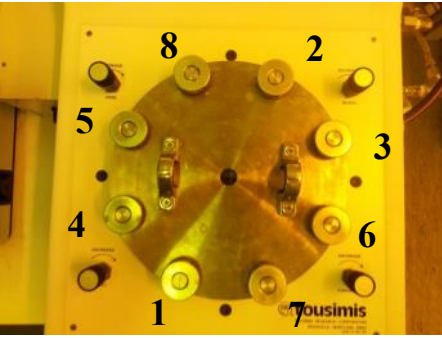
Press the FILL button.



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*At this point the CPD will automatically advance through the process mode sequentially until completion.*

## Removing Chips

20	<p>After processing, chamber will automatically vent</p> <p>Wait until pressure gauge is in the 0 psi range.</p> <p><b>NEVER ATTEMPT TO “FORCE” OPENNING</b></p>	
21	<p>With the spanner wrench, loosen the knurled nuts in the star pattern.</p>	
22	<p>Remove the samples from the chamber</p>	
23	<p>Replace the lid and tighten the knurled nuts with your hands</p>	
24	<p>Turn the power OFF</p>	

