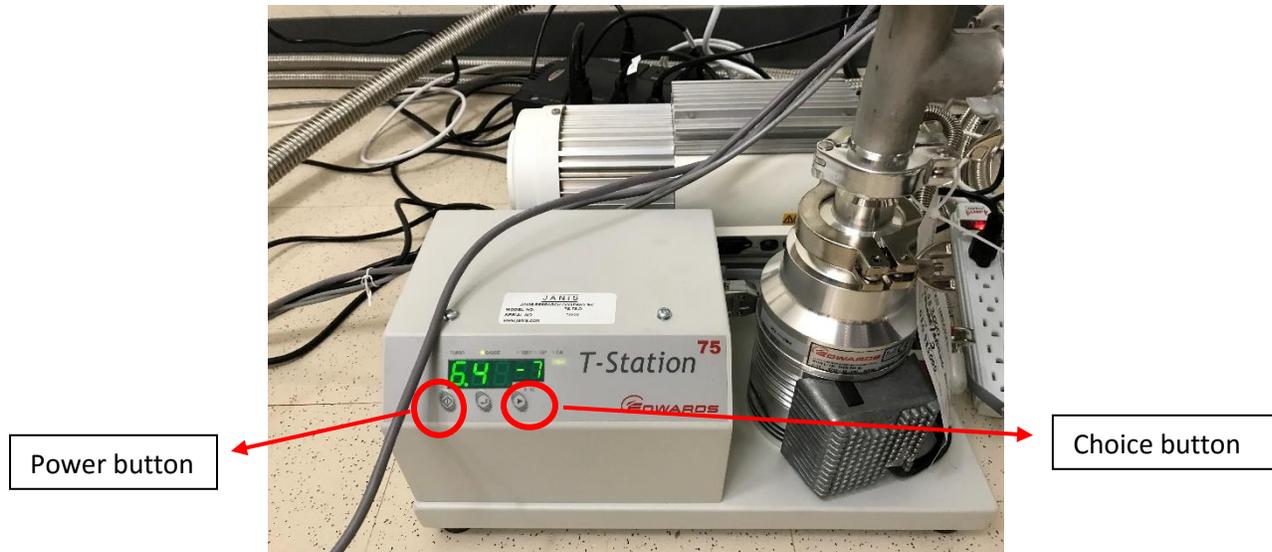


# How to Cool Down Cryostat

20171024 lzhu

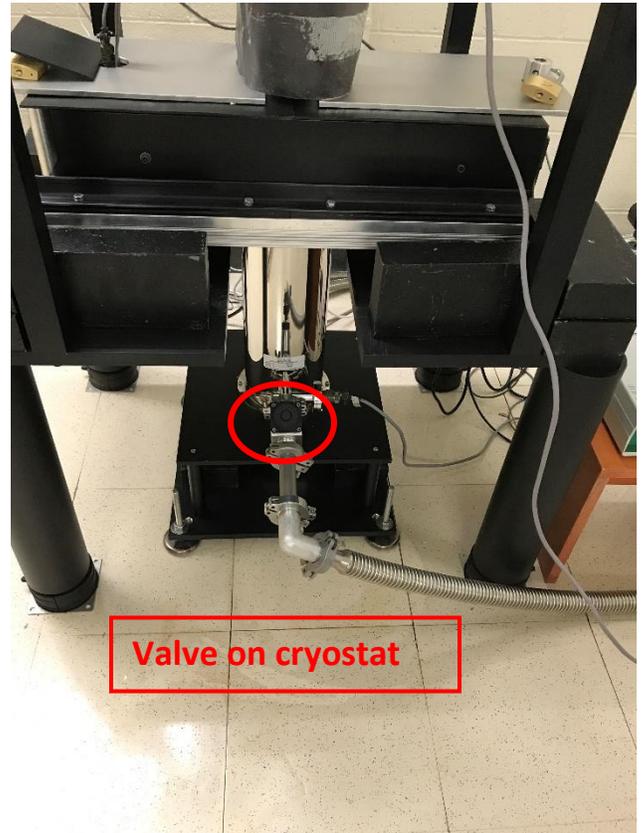
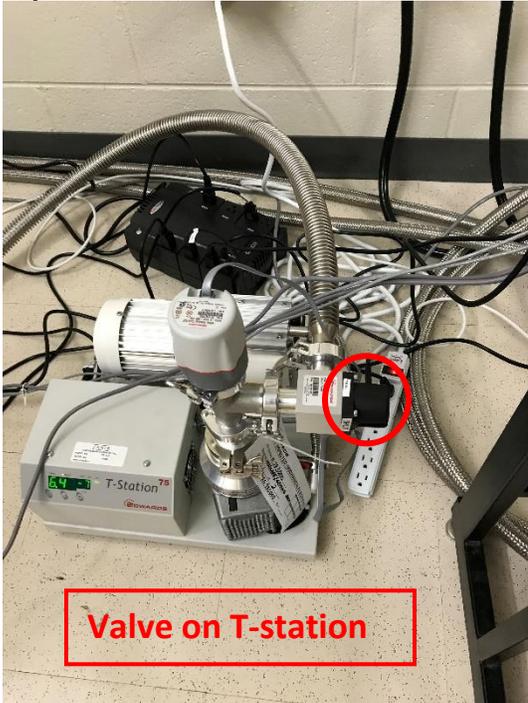
1. Turn on the T-station pump to pump the vacuum line. This will take 10-20mins to get good vacuum(-5 mbar).



Simply press “Power button” once to turn on T-station pump. Press “Choice button” to choose different LED displays. If you choose “Turbo” (green light), it shows the turbo power percentage and 100 means 100% Turbo pump power. If you choose “Gauge”, it shows the vacuum value in mbar.

*If you see “Error” message on “Gauge” screen of T-Station, unplug the power supply cord and then put it back to re-boot T-Station.*

2. SLOWLY open the valve on the T-station to let it pump the vacuum line until good vacuum (if it is open already, leave it open and go to next step). Then SLOWLY open the valve on the bottom part of cryostat to pump the cryostat itself. Wait until the vacuum gets to -5 mbar (1-2 hours)



3. If the sample chamber pump is closed, you can turn it on by turning on white power strip under PC table.



4. Turn on the cooling water line on the wall for the helium compressor.



5. You can press "ON" button on the back of helium compressor once you get good vacuum.(-5 mbar)



6. You can close the valve on the bottom part of cryostat after the cryostat is cold for overnight. (keep T-station pumping for overnight) Usually the vacuum will be at -7mbar at this moment. In this way the cryostat is always in good vacuum.
7. When you are done with your low temperature experiment, turn off ALL the heaters on the lakeshore temperature controller. Then turn off compressor by pressing “OFF” button on back of compressor. **Wait 20mins then shut off the cooling water lines on the wall.**