Pumping OVC

Part required:

NW40 Tube \* 3

NW40 Clamp \* 4

NW 40 ORing \*4

NW 25 Clamp \* 1

NW 25 Oring \* 1

NW25-40 Connector

Equipment required:

Turbo pump (Edward pump)

Steps:

1. Connect all the parts to form a long tube connecting the NW25 OVC outlet of the cryostat to the turbo pump. Remember to apply the high vacuum grease to each oring and connection in the long tube. And use linesman plier to tighten each clamp.
2. Remember to close the NW25 OVC outlet valve. Turn on the turbo pump to vacuum the tube to test if there is any leak.
3. If the pump cannot go to 5e-5 torr level, then there is some leak of the long tube. Please tighten each clamp more carefully and check if there is any problem of the connection. If the leak is still serious, please turn off the pump and reconnect each part of the tube.
4. If the pump can go to 5e-5 level. Please close the pump valve and then turn off the pump. Open OVC outlet valve. Wait some time for the pump to cool down. Turn on the pump again. And open the pump valve slowly to fully open.
5. Wait a few days to totally vacuum the OVC to 5e-5 torr.
6. Continue later steps for cooling down the cryostat.
7. Before cooling down to 10K, remember to close the OVC outlet valve and remove the long tube. Please avoid opening the OVC outlet valve anymore when in using the cryostat.
8. If we want to let the outlet to have maintenance, after each maintenance, please vacuum the OVC again to ensure the vacuum of OVC.