

IRIS Pumping and Venting Procedure

December 2018

1 Scattering Chamber

1.1 Pumping Down

1. Make sure **SEBT2:VV4A** and **SEBT2:VV4** are closed.
2. Start **SEBT2:BP4**, open **SEBT2:PV4** and open **SEBT2:RV4** once interlock allows it.
3. Wait until pressure on **SEBT2:CG4** has fallen below 350 mTorr, then close **SEBT2:RV4**, open **SEBT2:BV4**, and start **SEBT2:TP4**.
4. Once **SEBT2:TP4** is at full speed, turn on **SEBT2:PNG4**.

1.2 Venting

1. Switch off **SEBT2:TP4**. **SEBT2:BV4** will close automatically. Wait for **TP4** to spin down for ~~~15~~ ~~min.~~

Connect N₂ line from exhaust port of TIGRESS N₂ bottle.

2. Open **SEBT2:VV4** to vent chamber to atmosphere.

* Don't forget to close LN₂ valve when finished!*

- I recommend to open BV4 while TP4 is spinning down. Wait ~3 hrs if available
- Let in small amount of air/N₂ by quickly open - close VV4. Help to slow TP4 the rest of the way.

2 Monitoring Chamber

2.1 Pumping Down

1. Make sure **SEBT2:VV5A** and **SEBT2:VV5** are closed.
2. Start **SEBT2:BP5**, open **SEBT2:PV5** and open **SEBT2:RV5** once interlock allows it.
3. Wait until pressure on **SEBT2:CG5** has fallen below 150 mTorr, then close **SEBT2:RV5**, open **SEBT2:BV5**, and start **SEBT2:TP5**.
4. Once **SEBT2:TP5** is at full speed, turn on **SEBT2:IG5**.

2.2 Venting

1. Switch off **SEBT2:TP5**. **SEBT2:BV5** will close automatically. Wait for **TP5** to spin down for ~~~5~~ ~~min.~~ ^{~1 hr if available}

Close manual valve connected to VV5.

2. Open **SEBT2:VV5** to vent chamber to atmosphere.

Use this to slowly increase the pressure to safely slow down the turbo TP5