

4. Ablation and Condensation Frosting Vacuum Chamber

- Chamber Body: The main components of the chamber body include one six-way cross, two 4-way reducing crosses, two reducing-nipples, three access doors, and one viewport, which are all Conflat (CF) flanged. From there we have six CF-to-KF adapters which are used as connections/feedthroughs of thermocouples, power, a vacuum line, the vapor supply, chilled water (or liquid nitrogen), and a pressure transducer. The system is capable of pumping down to roughly 10^{-9} Torr and, through the use of liquid nitrogen, is capable of maintaining a mounted stage temperature of roughly 83 K.
- Purpose: This setup will enable visualizations and characterization of liquid-solid and vapor-solid phase change processes.

