***Improved procedure and practice in C50-12 cryomodule assembly as compared to prior C50 cryomodules with a special attention to the step of supply-end-can side UHV manifold attachment***

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* *All associated beamline assembly tools were ultrasonic cleaned prior to use.*
* *Ionized nitrogen was used initially to blow off all Beamline components before disassembly / assembly.*
* *Beamline gate valve 6” conflat removal. Removed all but two bolts. Ionized nitrogen use to blow into blind holes while monitoring particle count.*
* *Partial counter sampling tube was positioned directly under work area.*
* *Beamline warm to cold O-ring greased after slipping over bellows assembly preventing possible grease transfer to UHV components.*

***Supply end can manifold attachment***

* *Beampipe assembly partially assembled in the cleanroom minus the NEG, ion pump & Conflat flange tee.*
* *Assembly baked 48 hours.*
* *Beampipe assembly Inserted in the supply end can. UHV connection to cavity one was made.*
* *Reestablished vacuum & leak checked assembly.*
* *Manifold assembly & turbo pump opened to beamline briefly to reestablish vacuum.*
* *Preassembled NEG & ion pump assembly received from cavity guys. Assembly installed & leak checked in the high bay area after CMTF testing.*
* *NEG / ion pump isolation gate valve opened after completing final leak test.*
* *Reestablished beamline vacuum.*
* *Started actively pumping on beamline with newly installed 25 liter ion pump.*
* *Disconnect vacuum pump.*
* *Transport cryomodule to tunnel.*
* *NEG pump isolated & charged for two hours in the tunnel.*