



The original test cave control room would not support the rack space required for the new UITF.

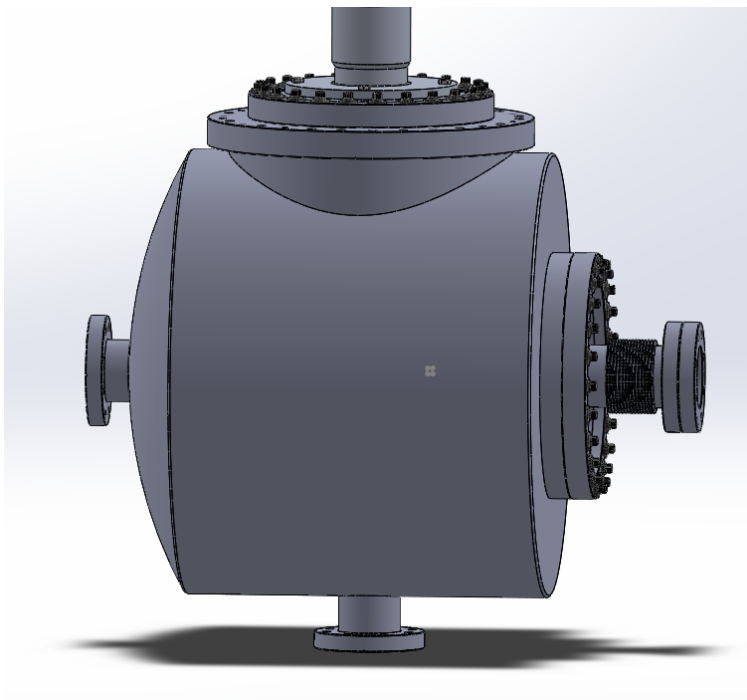


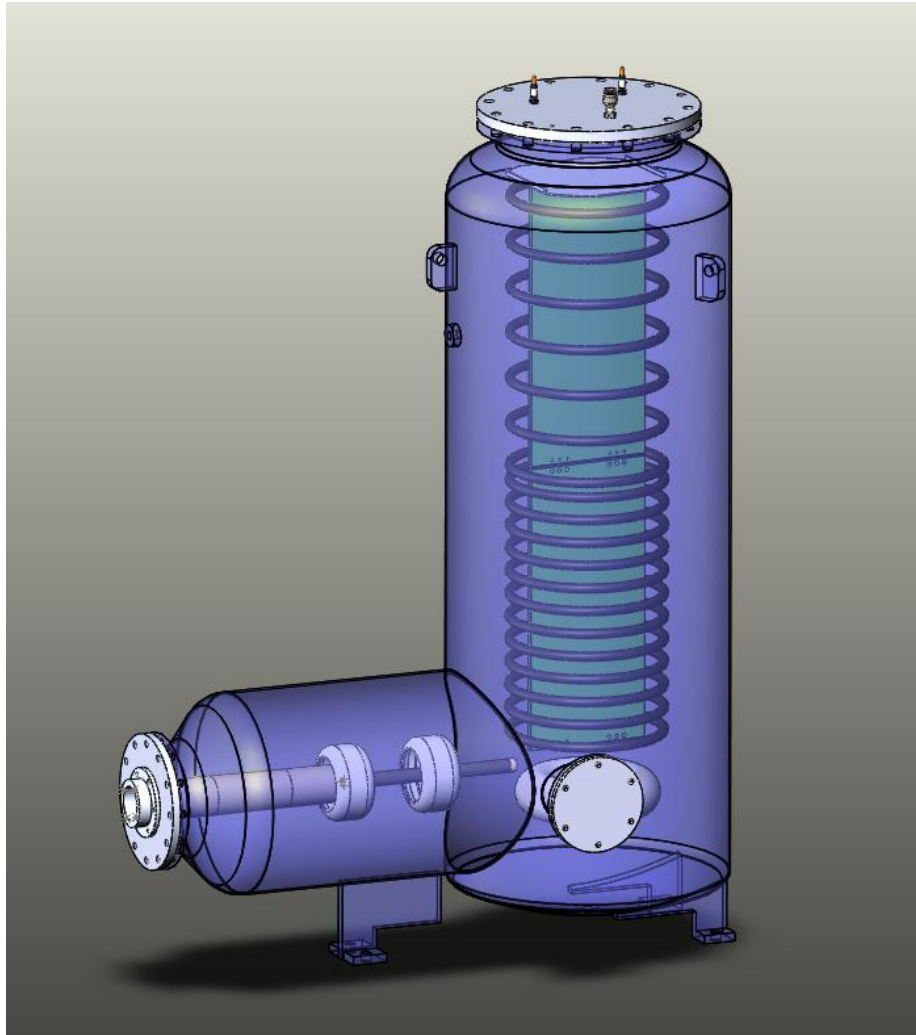
The control room is completely cleared out and a design is in place for an operating room for the new UITF.



Plan view of new control room.

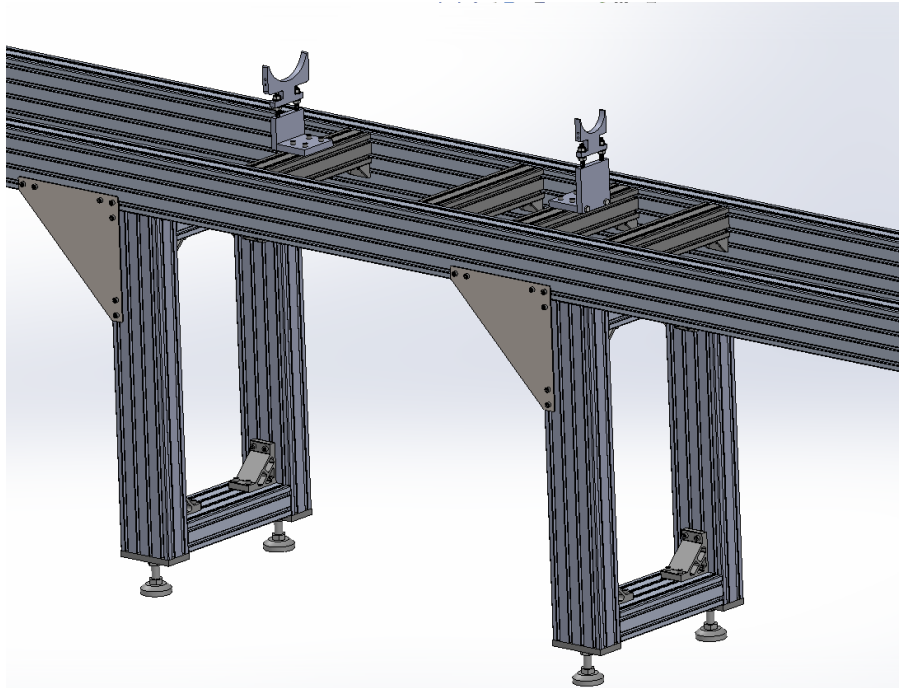
New 350kV gun is being tested at FEL Gun Test Stand (GTS)





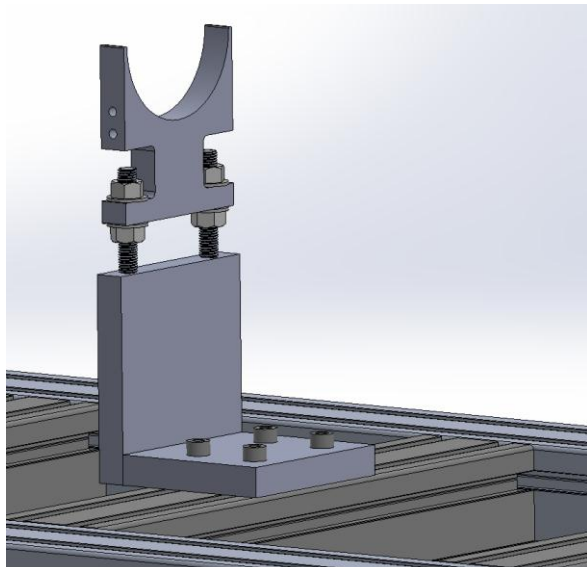
The gun will be connected by high voltage cable to a new 450KV Glassman power supply. The power supply will be located inside a pressurized SF6 tank (75psi). The power supply is on hand. The specifications for pressure systems need to be written before we can have the tank built and stamped for ASME code.

A commercial SF6 recovery cart has been purchased and is authorized by Jlab pressure systems for safe gas handling and recovery when the tank needs maintenance.

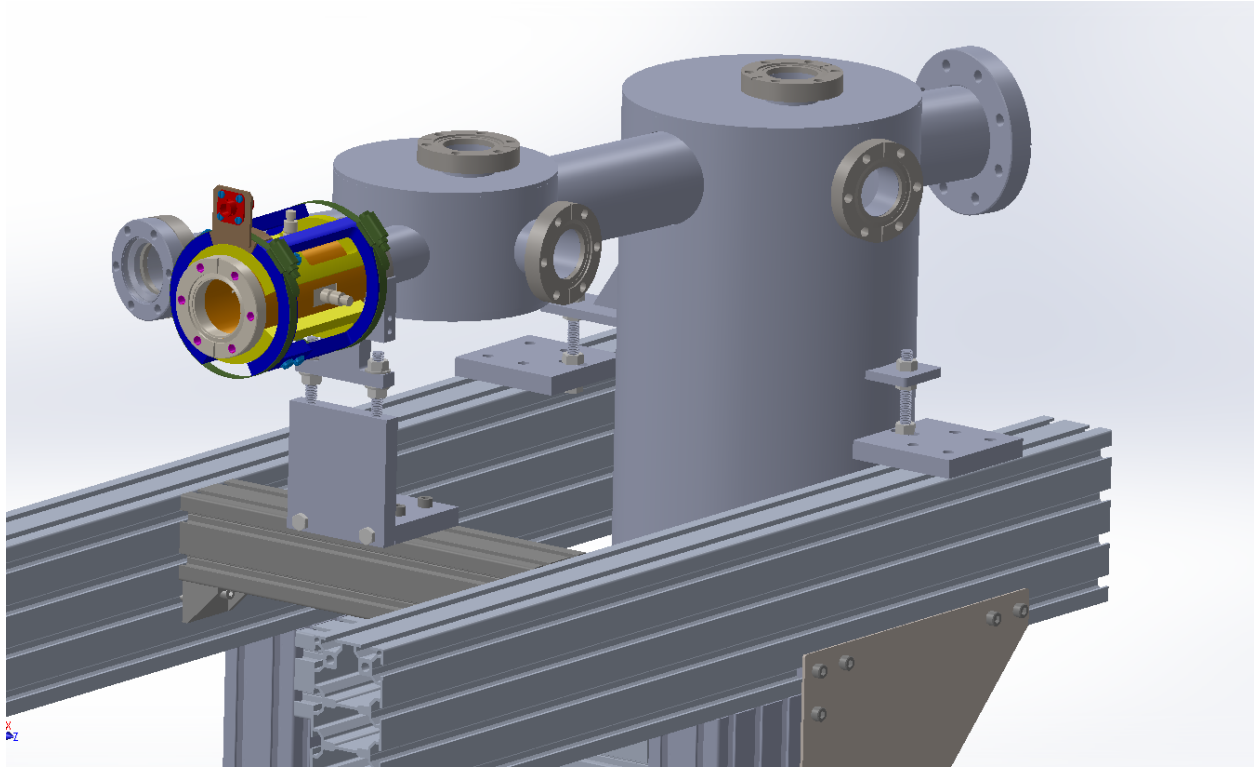


Misumi extruded aluminum rail will be used for the beamline girder throughout the UITF. A design has been finalized in SolidWorks and parts will be ordered soon. We will have standard “kits” for purchasing all parts for stands as needed.

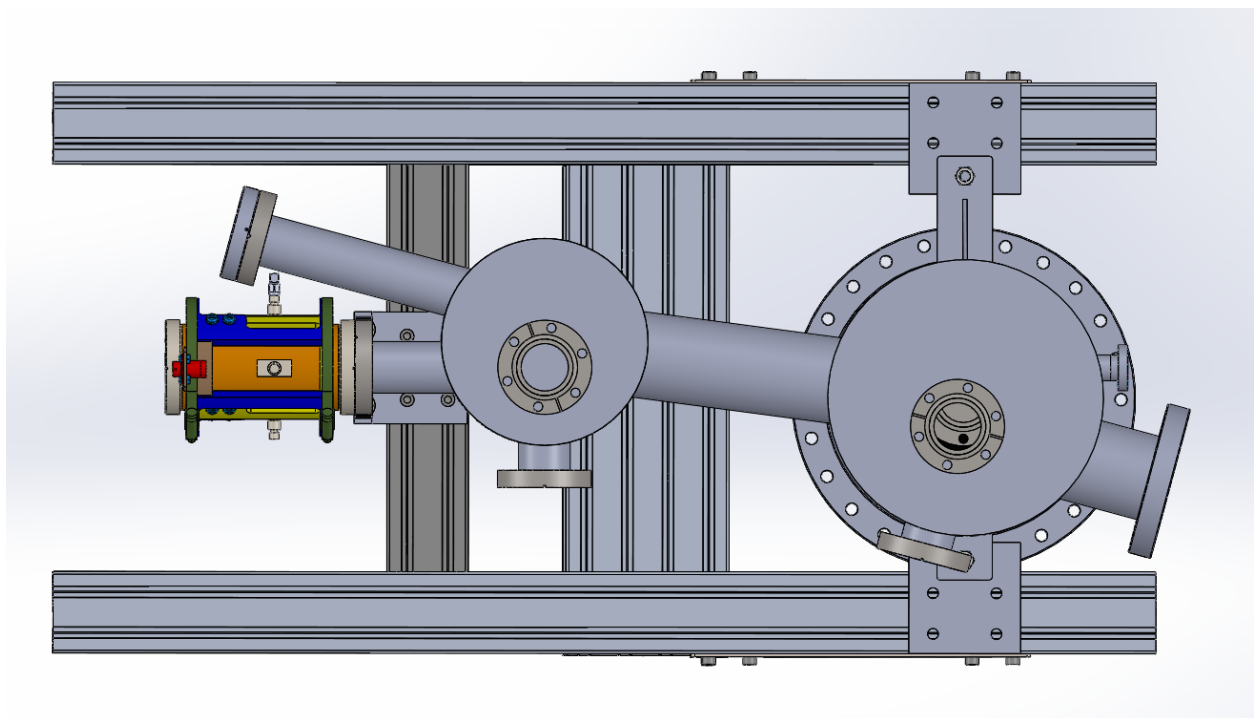
We can work with EES to design mounting hardware for items that need to be attached to the girder or stands. (BPM pre-amplifiers, Viewer electronics, etc.)



The rail design accommodates rapid insertion of beamline supports as needed and allows independent X,Y, and Z adjustments of any flange.



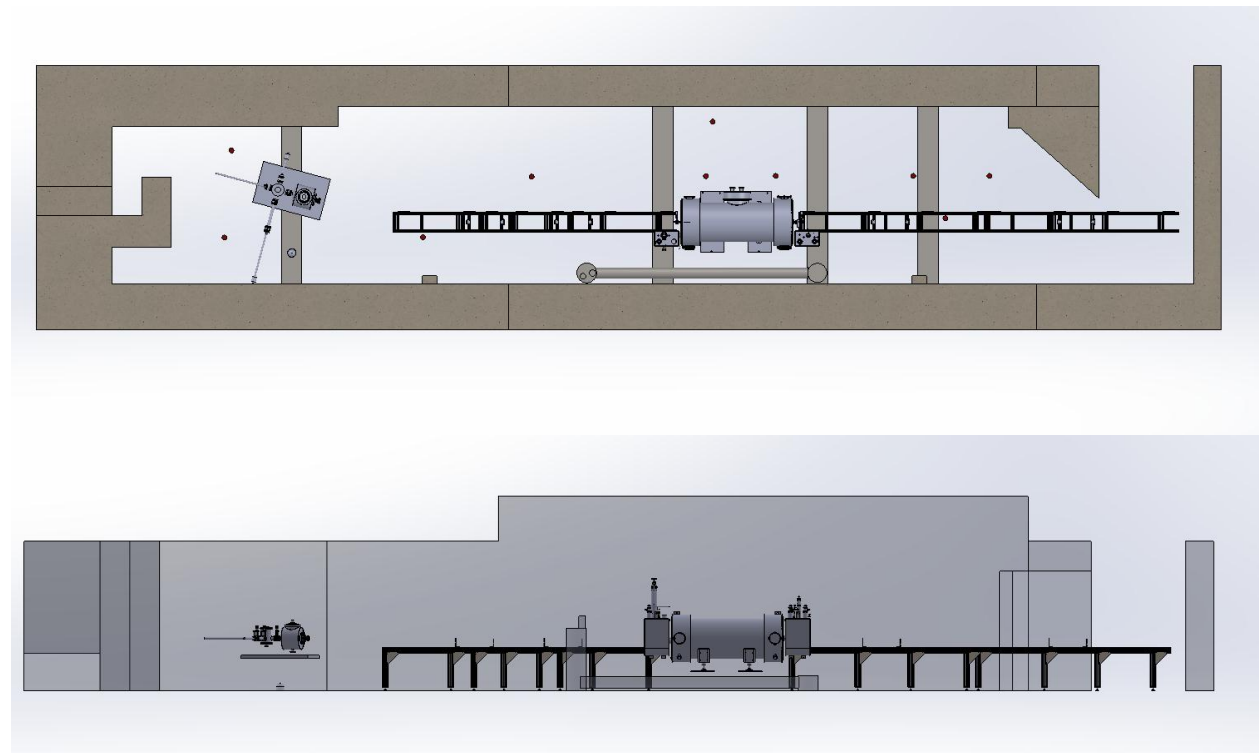
A new laser / electron beam combining chamber has been designed in SolidWorks.



The new chamber will provide better electron beam bending optics because the 15 degree bend magnet is now set at 7.5 degrees to allow an equal beam entry and exit angle. The new chamber also serves as a differential pumping can by holding six WP950 getters.

The new chamber also provides a window to allow a HeNe alignment laser to be aimed down the entire beamline.

We could use designer help to make the final construction prints and formal Jlab documentation.



The test cave has been modeled in SolidWorks and all alignment monuments are available as points in the model.

Position of $\frac{1}{4}$ Cryomodule is not defined. It may move further downstream. We expect to have a better idea of final position within two months.

Penetrations are being core drilled in the ceiling to accommodate wiring for all controls. Rack layout has not been finalized.

Component count for BPM's, Magnets, etc has not been finalized.

