Gun for Test Cave:

350kV operation, with GaAs photocathode. Best vacuum possible inside gun and adjoining beamline. Will NEG sheet be enough?

1. Find anode flange or have one made. This is the same flange as used on CEBAF inverted gun.
2. Weld into place the NEG sheet support bars
3. Make a new ground screen of appropriate length? Fewer pointy edges?
4. How big the opening in NEG sheet leading to ion pump?
5. Find ion pump with 4.5” flange, and 2.75” pump out port
6. Do we have the v-blocks for this gun?
7. 400C bakeout with anode flange, and NEG support bars and ground screen, valve to turbo pump, blank the other flanges. Bakeout inside the test cave where stink won’t bother us
8. NEG coat this chamber
9. Note, we will have lots of NEG modules inside new Y chamber which will be relatively close to gun
10. Remove 200kV gun from test cave table, store it at CEBAF?
11. Install 350kV gun on test cave table
12. Vent the prep chamber and implement improvements: taper the 3mm hole in mask, add Li strips, reduce the length of short manipulator, reduce the length of long manipulator on suitcase, what else?