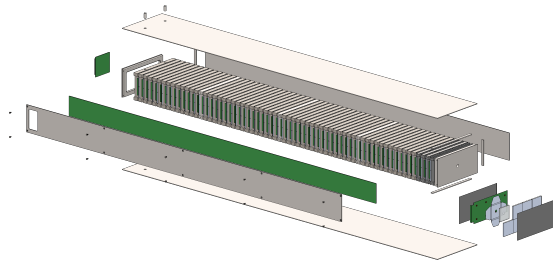


Mechanics update

December 6, 2023

Friederike Bock & Elliott Fountain



- CD3-A purchase focused on materials for 8M module absorber structure cut to specifications, not assembled modules
- Assembly procedure to be verified & structural integrity to be test ideally prior to purchase order (to avoid future structural modifications) → ideally on a few full assemblies
- Assembly of 8M modules assumed with e-beam welding on 3 side (top, bottom, 1 side), 4th side cover crewed in over PCB
 - ▶ Exact welding technique i.e. spot, stitch or full length seam not specified yet
- Cost of material for 1 8M module \approx 6-10K (cut pieces)
- Leading Edge Metals (Torrance, CA) offered to do joint R&D on assembly technique → they procured material for 5 8M modules & are working with welding company to create test pieces for us

Update on Welding tests

- First discussions with welding company initiated (Electron Beam Welding LLC, Buena park, CA)
- Feedback:
 - ▶ welding done in largest vacuum weld chamber (330 x 142 x 167 cm³) → one machine at company
 - ▶ full seam weld would cause warping beyond tolerance & take enormous amount of time
 - ▶ spot weld (3-7 on long side) favorable & should give sufficient strength
 - ▶ rig/frame needed for keeping plates in place → out of aluminium or copper → Elliott working on first version in communication with welders
 - ▶ could put multiple modules in the chamber
- Weld classification tests planned for this/next week (determination of settings)
- Slotted for module production 3rd, 5th, 7th, 9th Jan (depending on material availability)

