

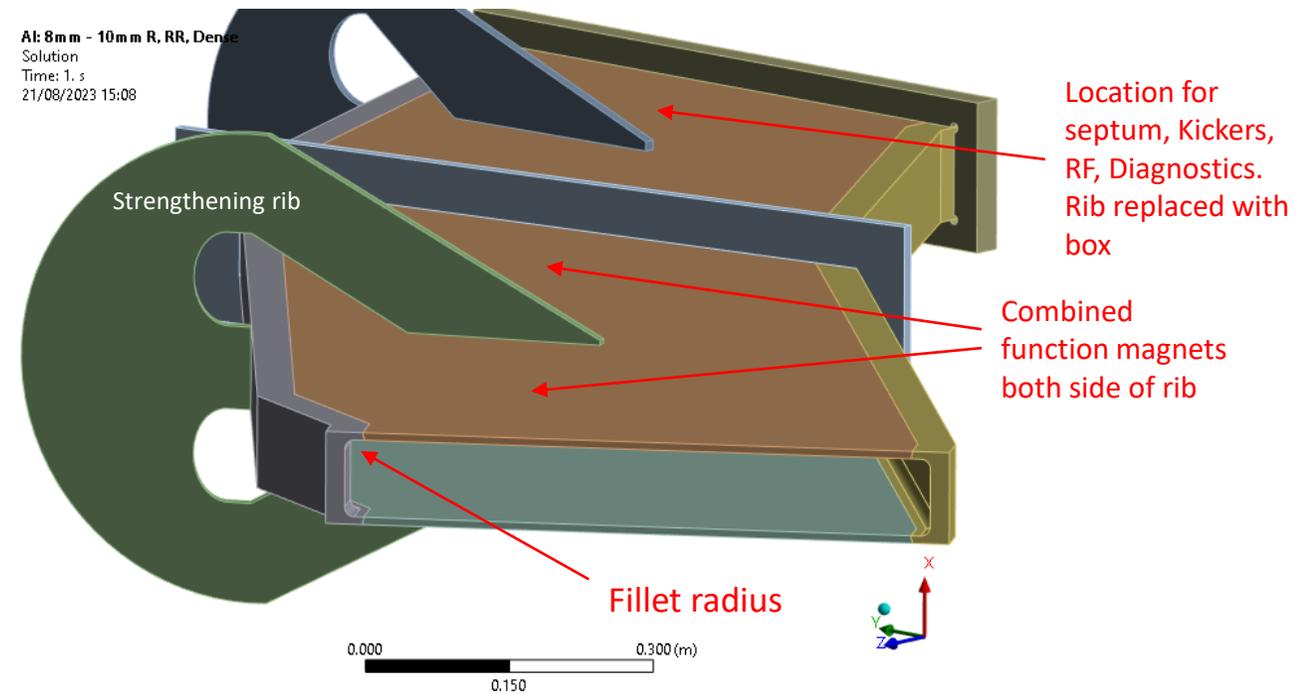
ISIS FETS FFA Vacuum Chamber FEA

Work in progress

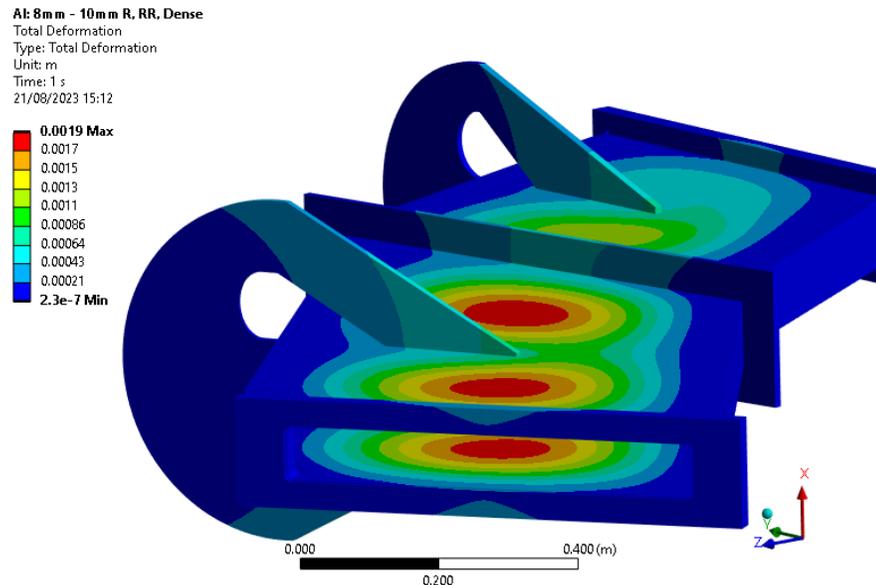
Preliminary Images of Stress & Deflection

22nd August 2023

- Wall thickness 8mm
- Internal fillet radius on the inside of the vacuum chamber added to reduce stress concentration
- Rib between combined function magnets design developed to reduce stress concentration
- Deflection ~2mm
- Proof stress within acceptable factor of safety
- Report writing in progress
- Allowance for vacuum chamber ~12mm estimated
- Increase of 2mm required to current 10mm estimated
- Magnet gap increase 4mm



Deflection Plot



Stress Plot

