## Acquiring a normalization data set

- Fill the Normalization Phantom with F-18
  - Calculate the activity to be injected into the phantom such that it will have 500 uCi of F18 at the start of the scan.
  - Record the activity injected into the phantom along with the time it was measured.
  - Leave a small air bubble in the tank.
  - Roll the tank on the floor for 2-3 minutes to ensure an even mixture.
  - $\circ$   $\;$  Add more water to the tank to remove the air bubble.
- Place the phantom in the NeuroPET/CT bore liner
  - Use the foam inserts to axially center the phantom.
  - The front edge of the phantom should stick out from the laser line by 57.5 mm (see diagram)
- Register a new patient
  - o Patient Last Name: Normalization
  - o Leave rest blank
- Protocol
  - Select the Normalization protocol
    - Scan Duration: 7200 seconds
    - Options: Option 3
    - All other values are ignored.
- Dose Info
  - Isotope: Fluorine-18
  - RadioPharm: Fluorodeoxyglucose F-18
  - Assay Dose: \_\_\_\_\_ Time: \_\_:\_\_:\_\_
  - Remaining Dose: \_\_\_\_\_ Time: \_\_:\_\_:
- Begin Scan and allow the acquisition to complete
- Allow the normalization reconstruction to complete
- Connecting the normalization (must be connected manually)
  - From the Workstation open a Linux terminal window to the scanner.
  - o cd /data/Calibration
  - o ls -ltr
    - You should see 1 new folder:
    - SN001\_<acquisition\_datetime>\_<recon\_date\_time>
  - Remove the current normalization links
    - rm CurrentMaps
  - Note: Do not use the -rf option on the rm
  - Note: Do not include a / at the end of the link name
  - o Create links to the new normalization folder
    - In -s SN001\_<acquisition\_datetime>\_<recon\_date\_time> CurrentMaps
  - o ls -ltr
    - Confirm the normalization links are pointing to the correct folders.