Fitting of Forward Endcap EMC into the $\overline{\text{P}}$ANDA Magnet Yoke

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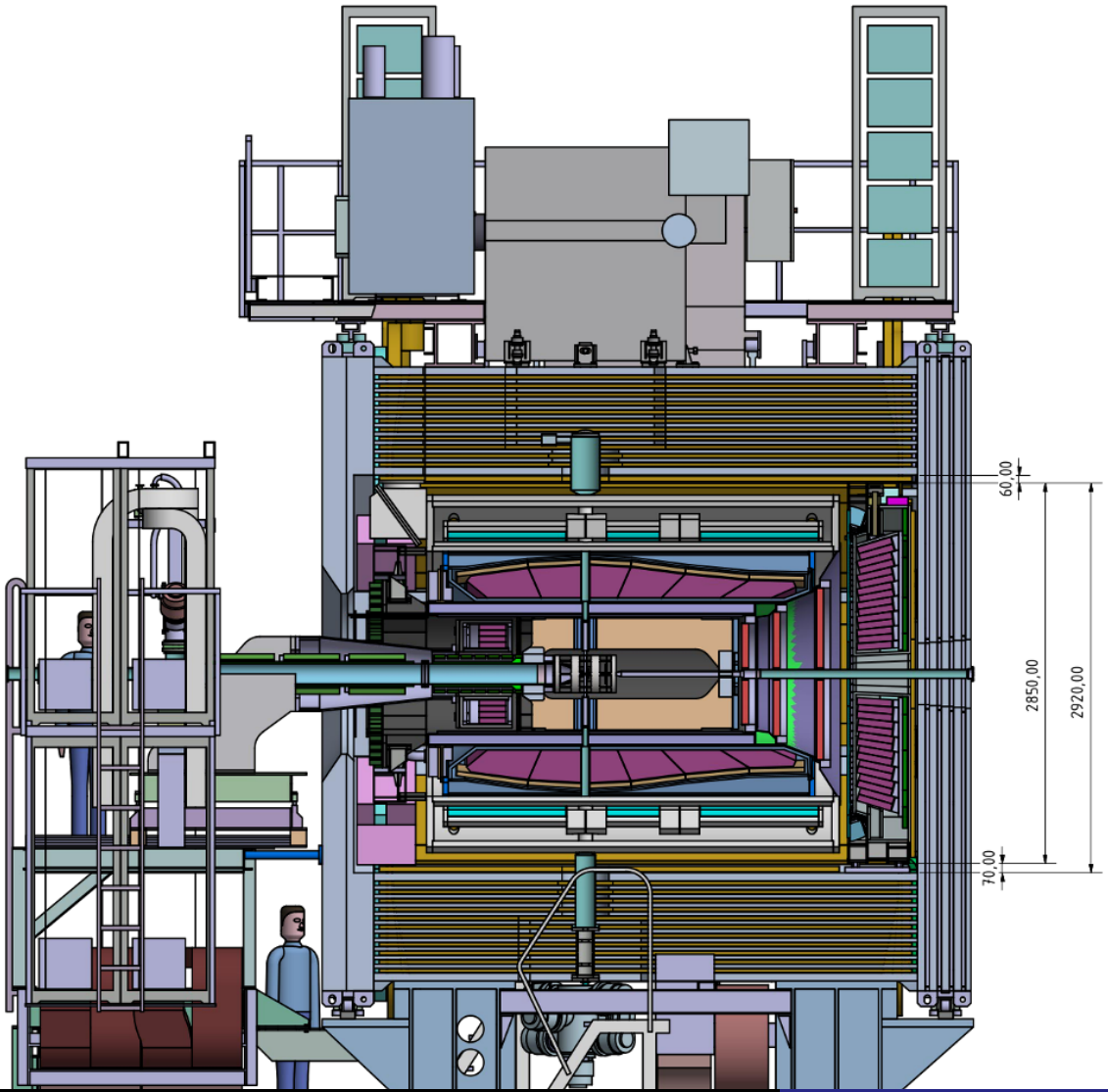
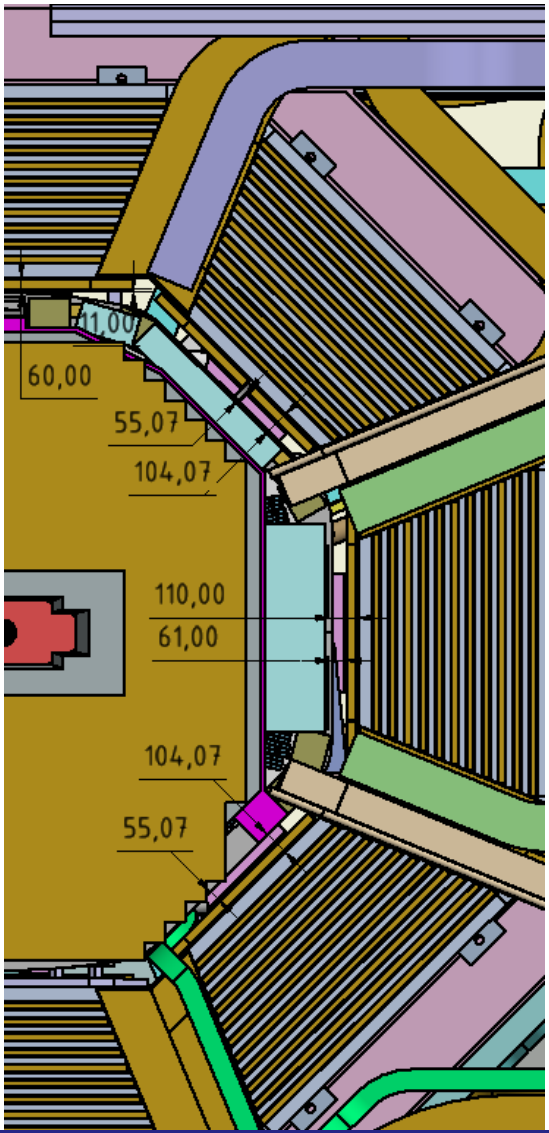
p̄anda

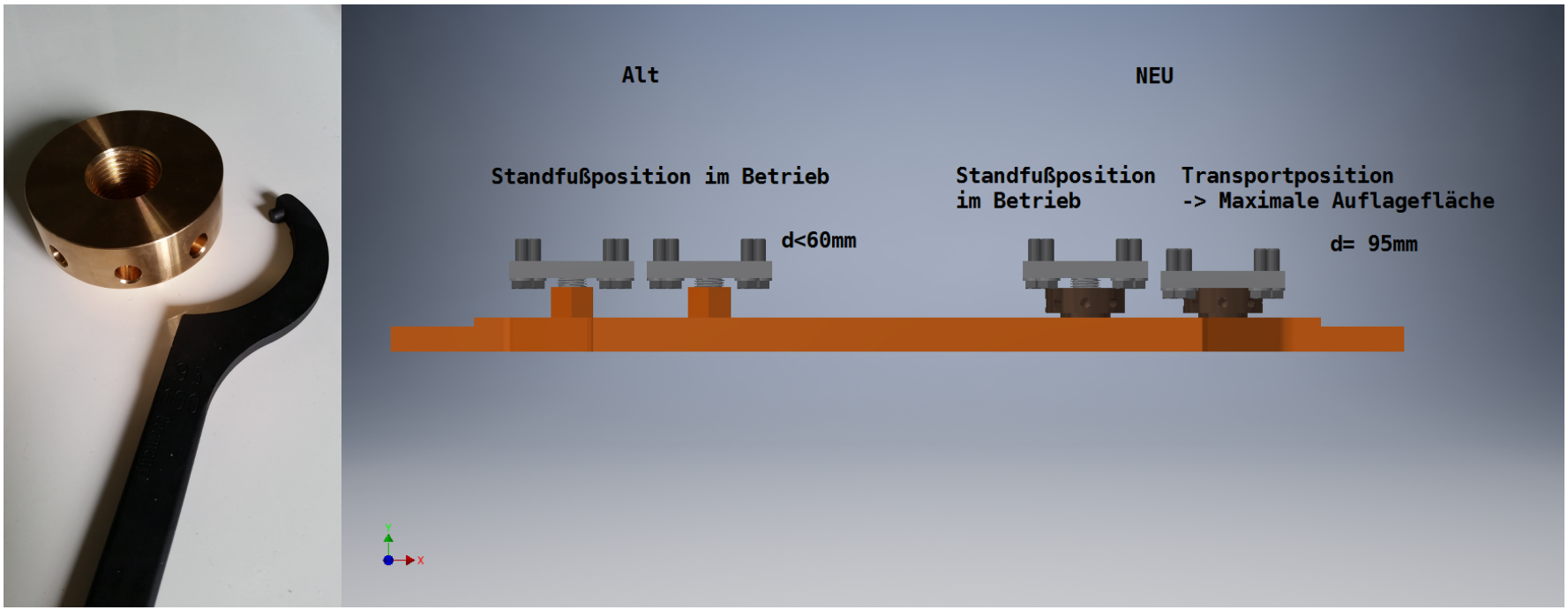
Forward Endcap in $\overline{\text{P}}$ANDA Magnet Yoke: Boundary Conditions





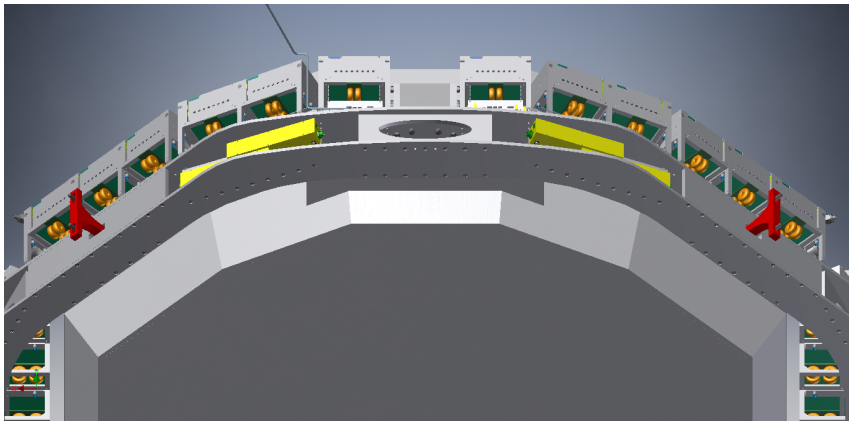
Forward Endcap in $\overline{\text{P}}$ANDA Magnet Yoke: Mounting

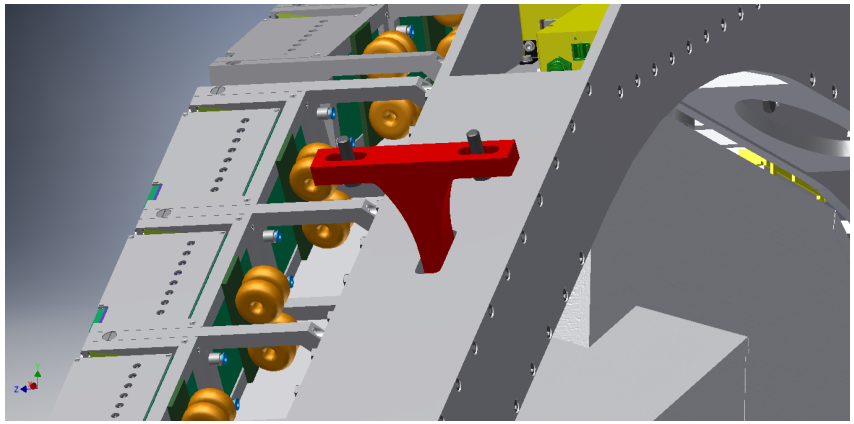
- Cast bronze feet:
  - Secure stand in 4 holes in magnet yoke (base plate)
  - Height/tilt adjustment of forward endcap by $\approx$ 4 cm
  - Increase of contact surface during transport when fully screwed in (in contrast to old hexagon design)



Forward Endcap in $\overline{\text{P}}$ANDA Magnet Yoke: Mounting

- Upper suspension (prevention from tipping) to magnet:
  - Aluminum pieces screwed to magnet, not affixed to endcap support frame
  - z-position?
  - $\rightarrow$ Deformation of frame

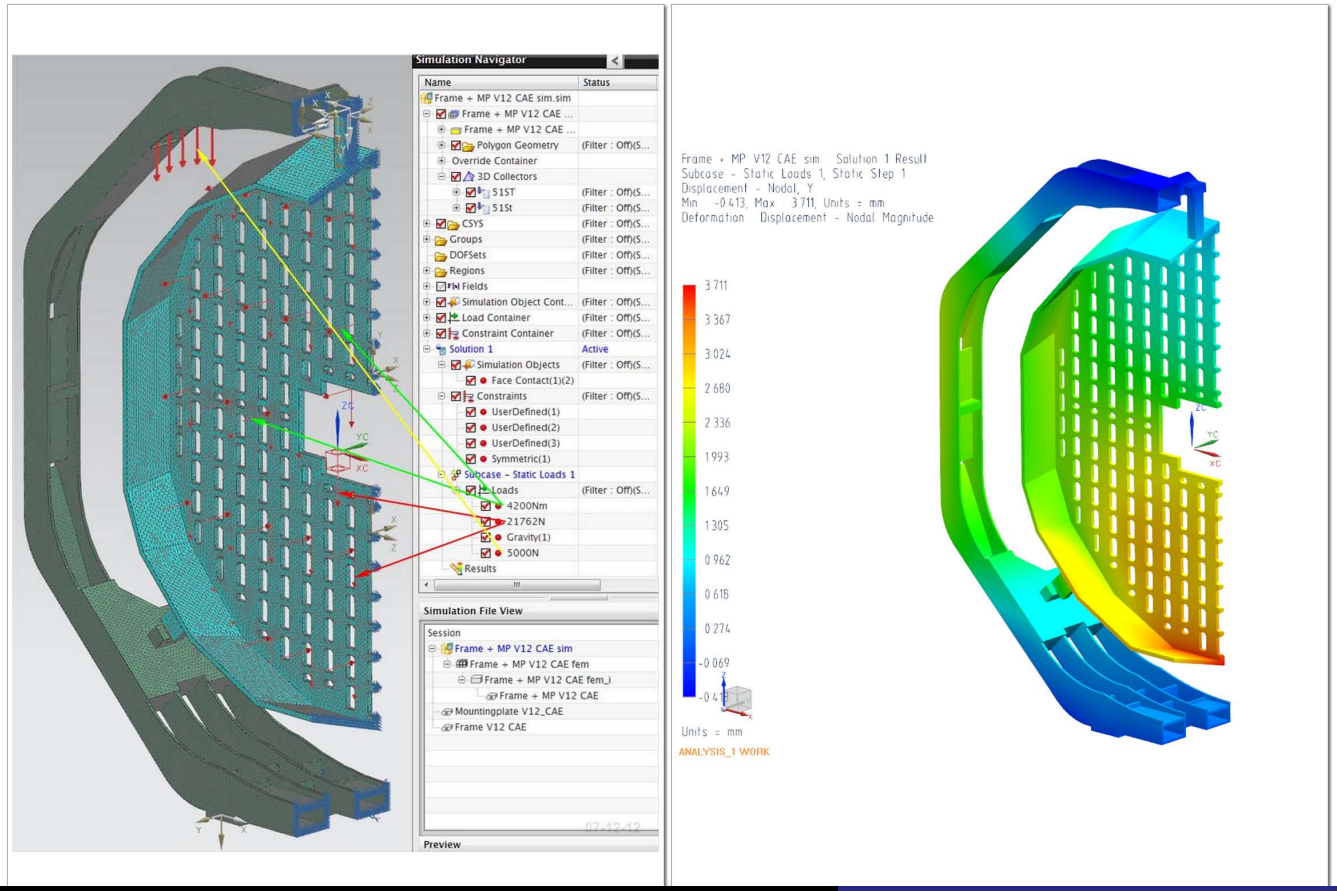




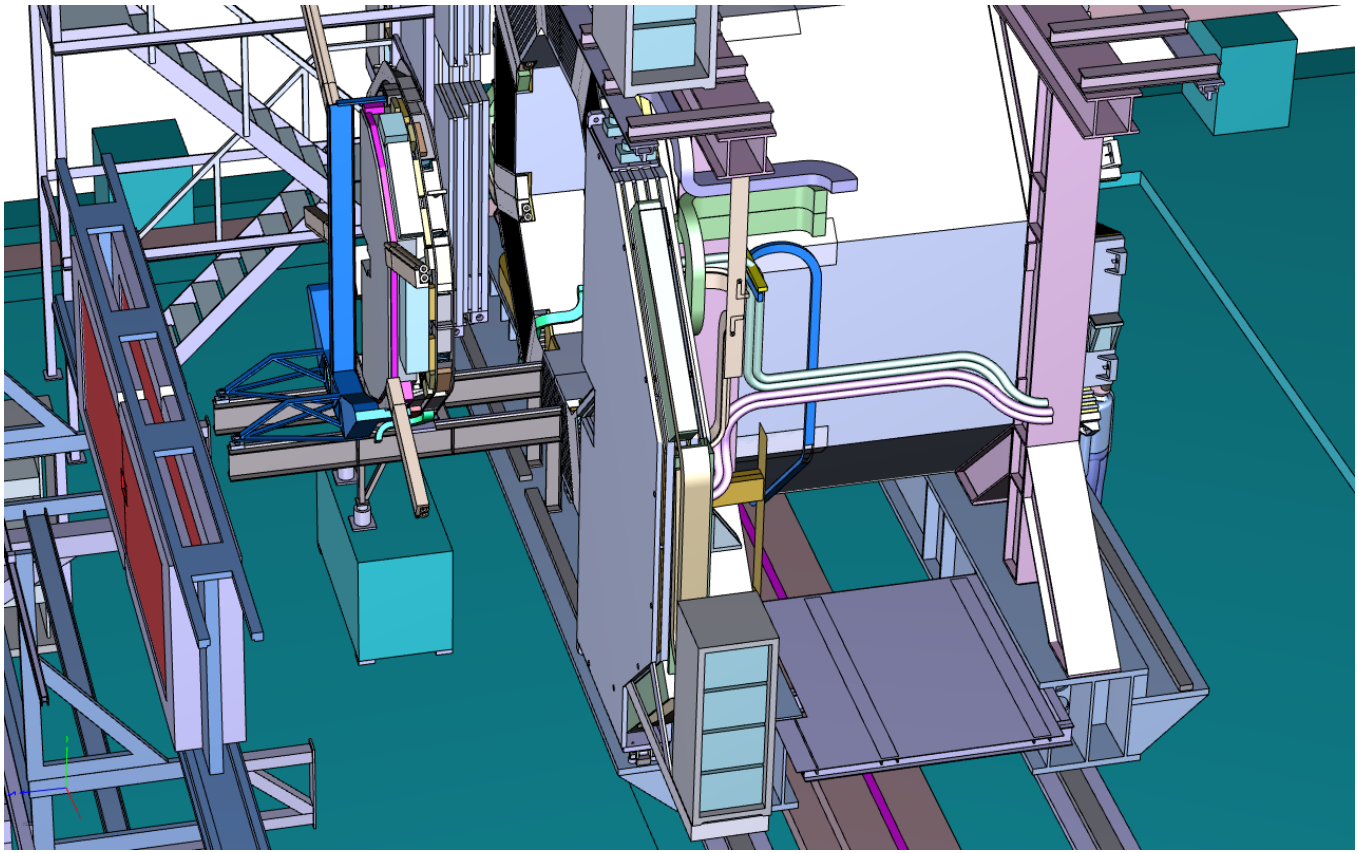
Forward Endcap in $\overline{\text{P}}$ANDA Magnet Yoke: Boundary Conditions

- Detector inside support frame will come down by 3.7 cm
- Deformation of frame? $\rightarrow$ Query to KVI engineers

Results simulation V12

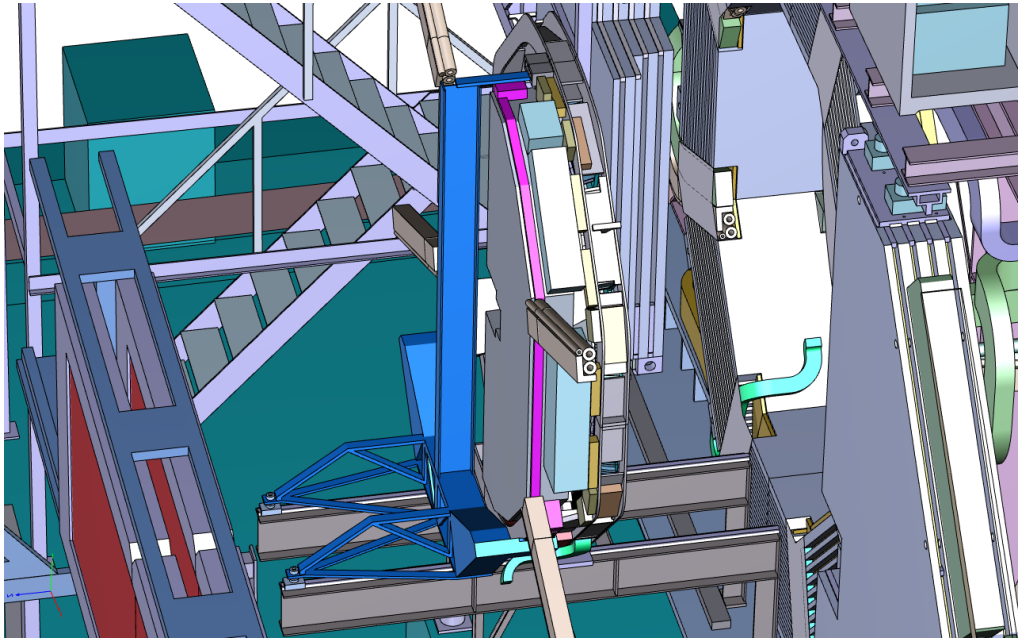


Forward Endcap in $\overline{\text{P}}$ANDA Magnet Yoke: Insertion



- Roll in of endcap on rails ending in front of magnet
- Clamp rolls on roll-in frame prevent fall over of endcap
- Suspension of forward endcap frame at most stable points

Forward Endcap in $\overline{\text{P}}$ANDA Magnet Yoke: Insertion



- Lowering of forward endcap into feed holes in magnet by very slight tilting (lowering at position of front bearings only)
- Additional securing by use of 8 securing screws on backplate (coupling also backplate to roll-in frame as during transport)
- Receiving endcap from transport frame in the same way as putting it into magnet