# WOWCC
# Status +Cathode assy handling

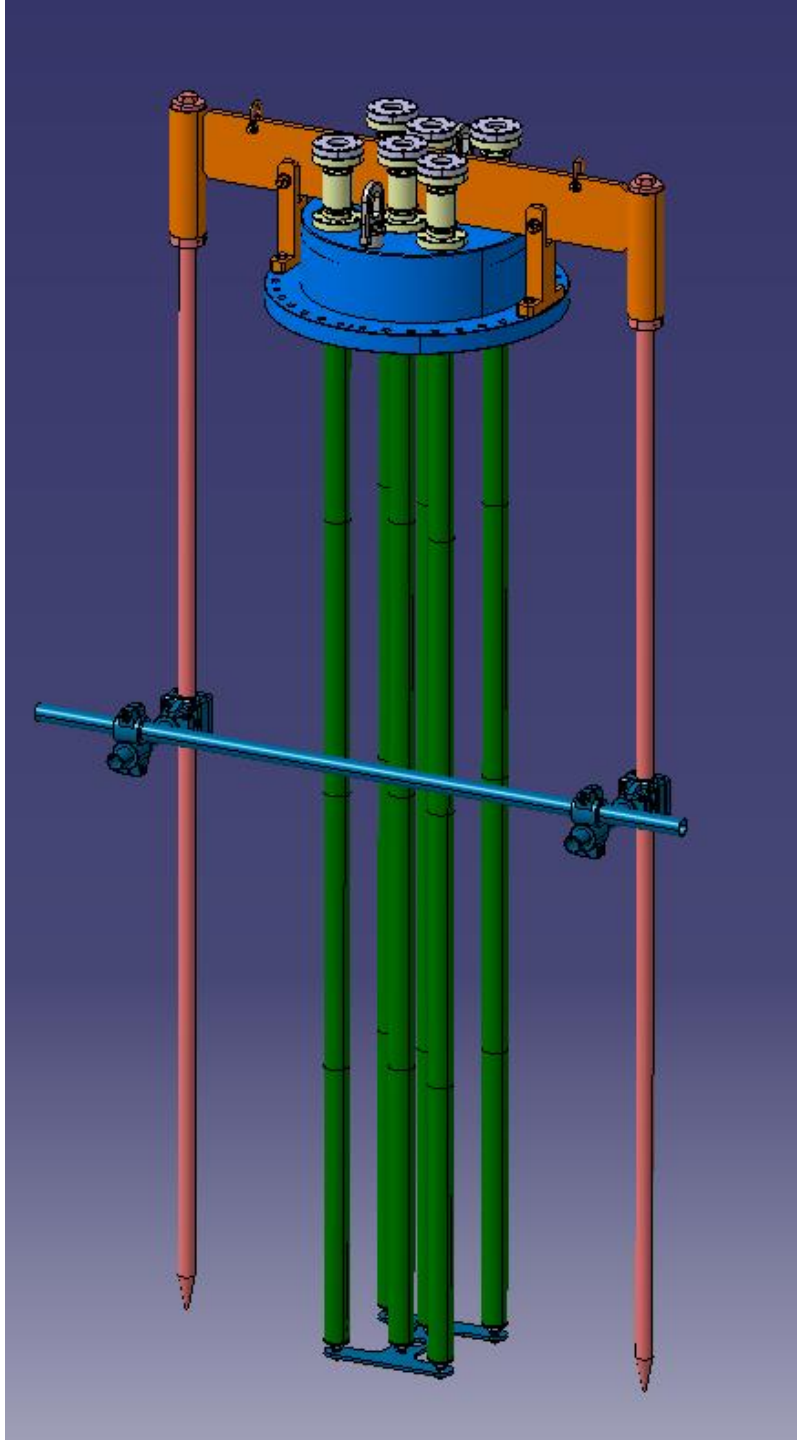
Tommi Mikkola 25/06/2020

# Sputtering prototypes and testing

- Both magnet assemblies at CERN
- Manufacturing of the test set-up underway
  - Fabio’s presentation
- Anodization of the handling frame plates?

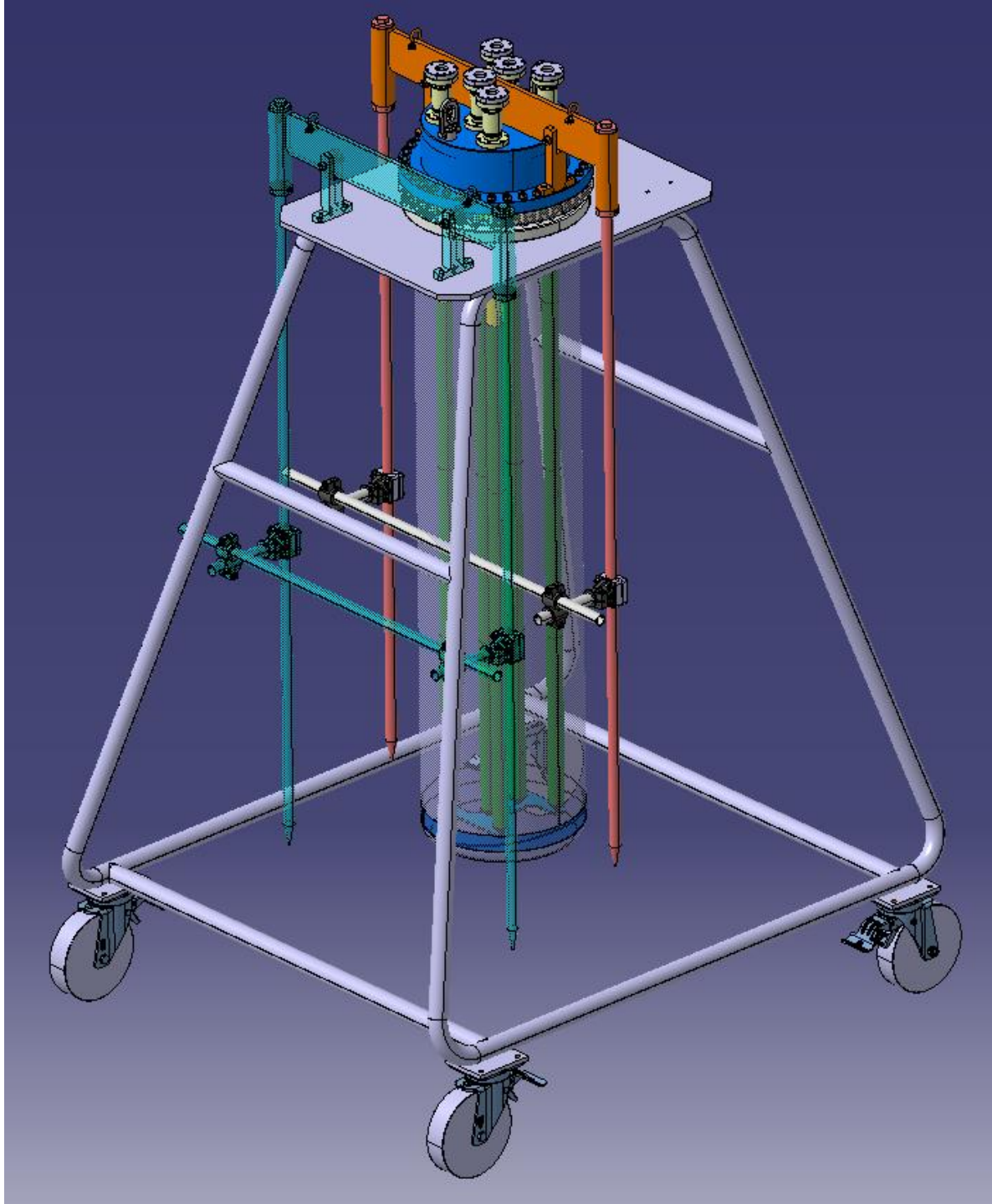
# Cathode assembly

- New simplified assembly
  - Lifting bar (orange)
  - Alignment rods (reddish orange)
  - Stiffening/handling bar (blue)
- Positioning of the lifting and alignment equipment through the flange
- Manufacturing tolerances over 1.5m critical for cathodes and alignment rod mounting



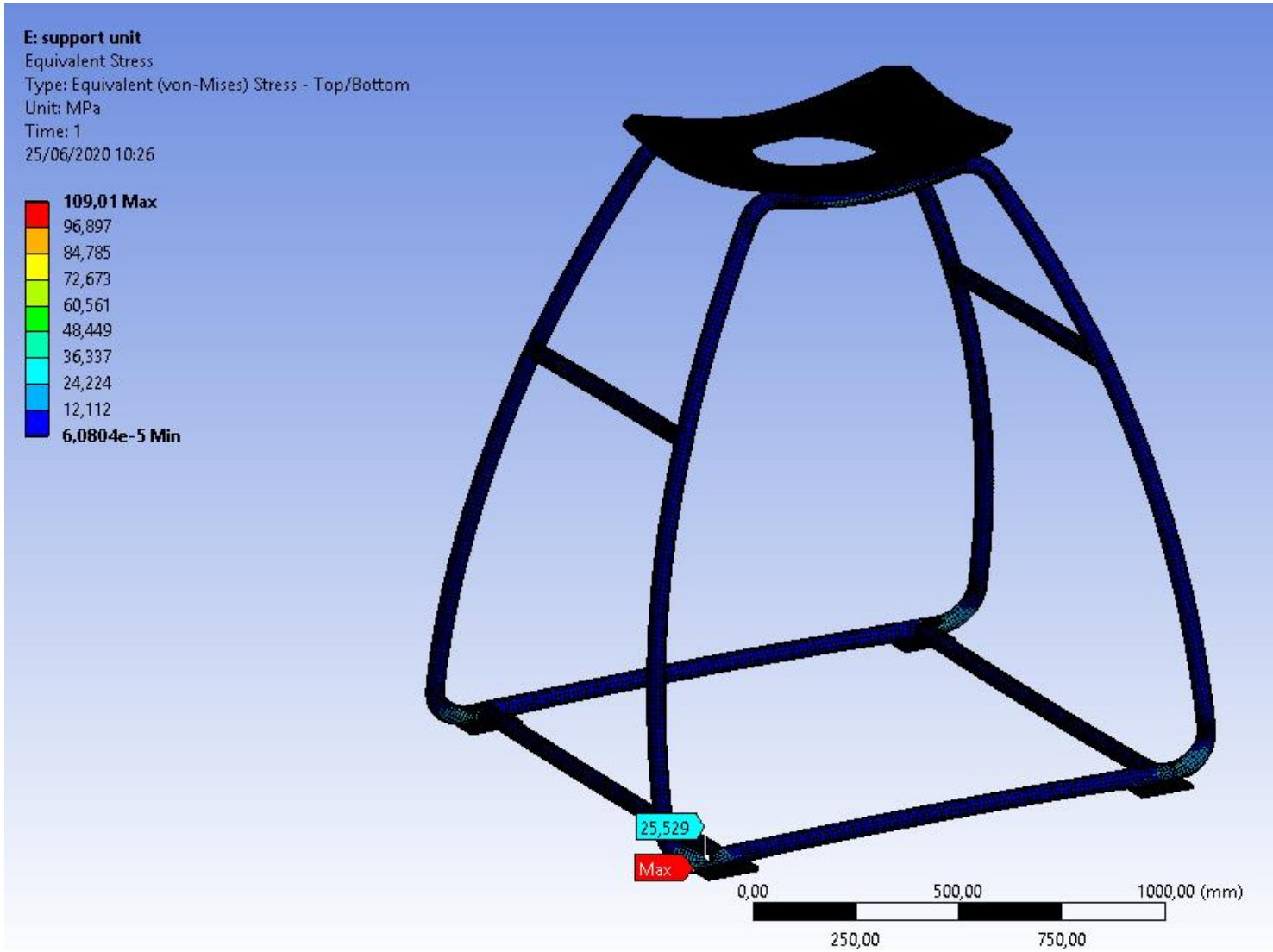
# Cathode storage unit

- Units for the storage and movement of the cathode assembly
- A storage pod + frame
- Separate plate for the lifting bar
- To be used for assembling the individual cathodes on the and lifting bar
- Port for vacuum/N2 fill?



# Cathode storage unit

- Calculated for 200kg at 2g
- 304L bent and welded structure
- Plates t=10mm, tubes Ø42,4x1,6
- Low stresses, some local peaks
- Possible smaller tubes if it eases manufacturing

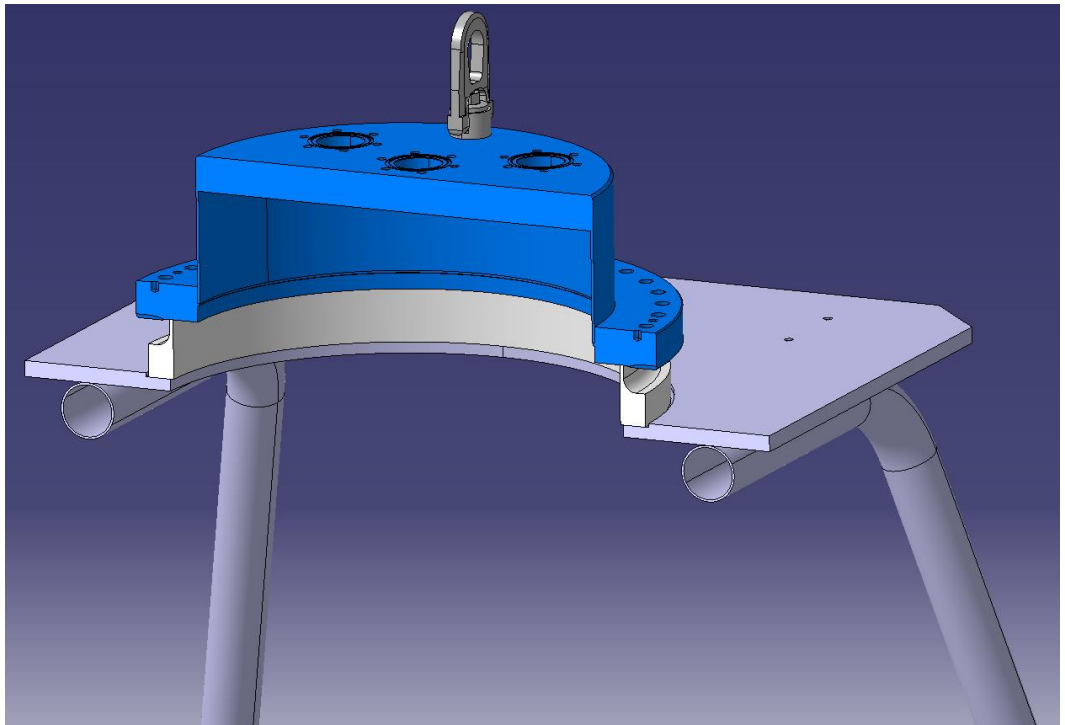


# Assembly

- Storage frame

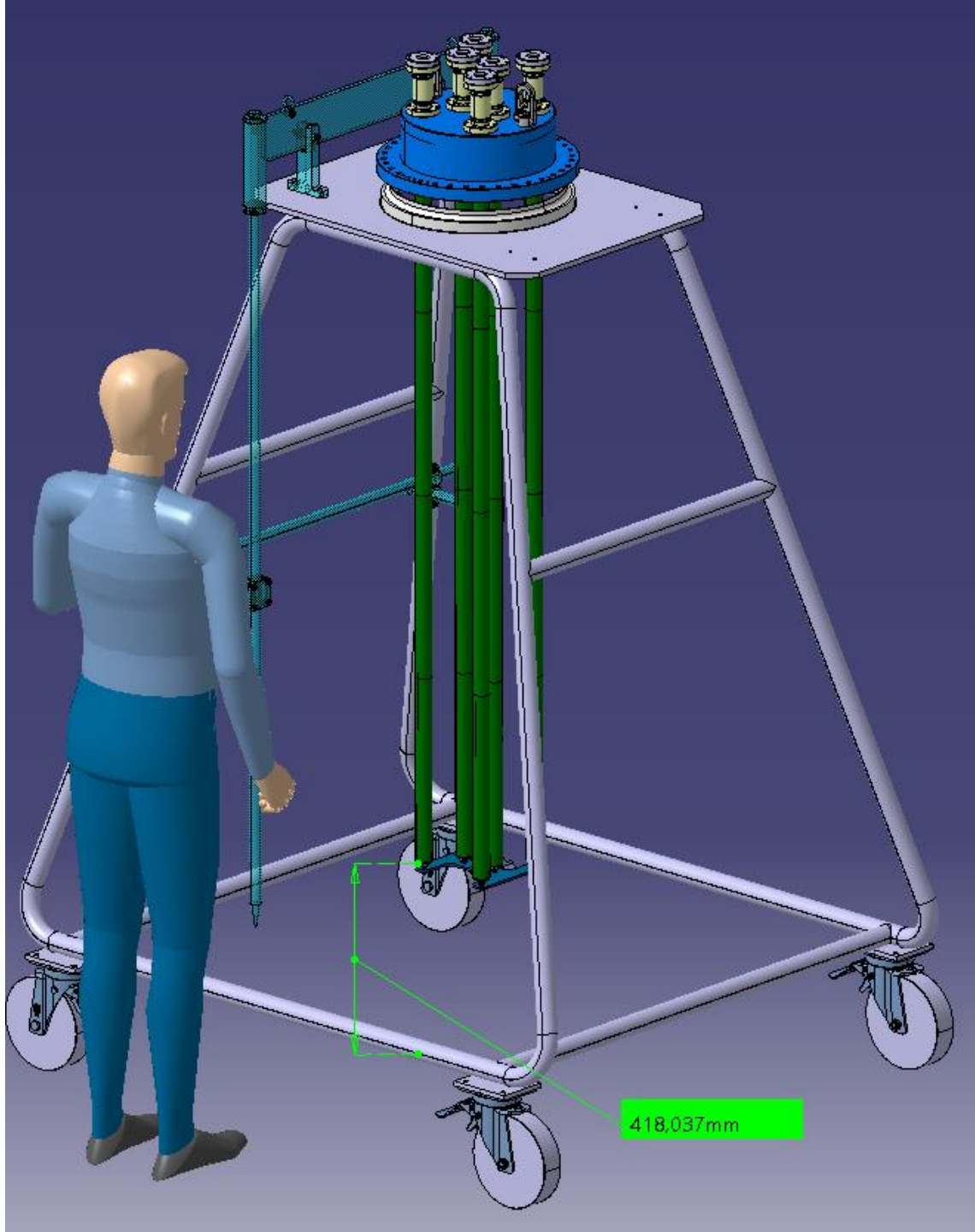
# Assembly

- Perhaps new interface plate needed as the current POM collar is for use with the storage pod.



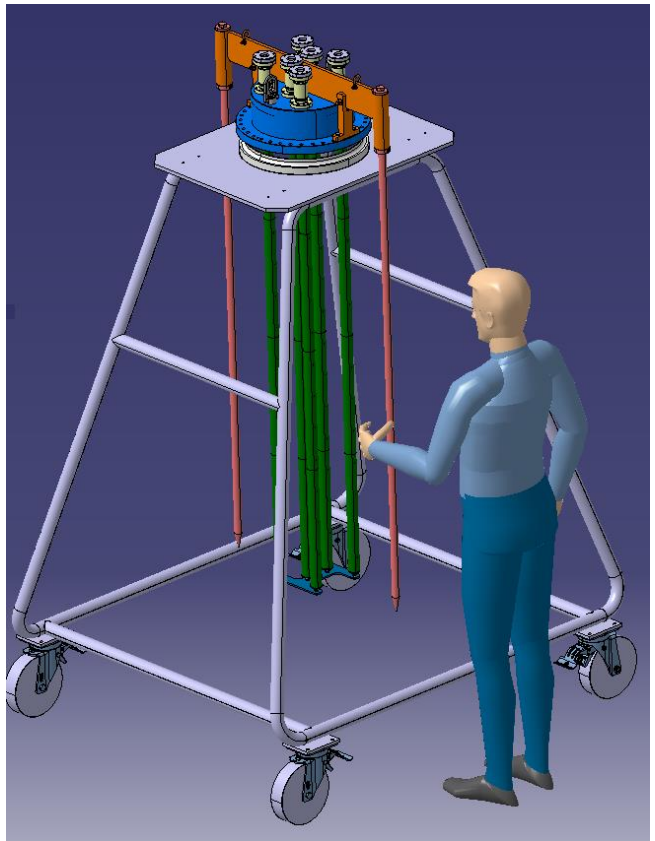
# Assembly

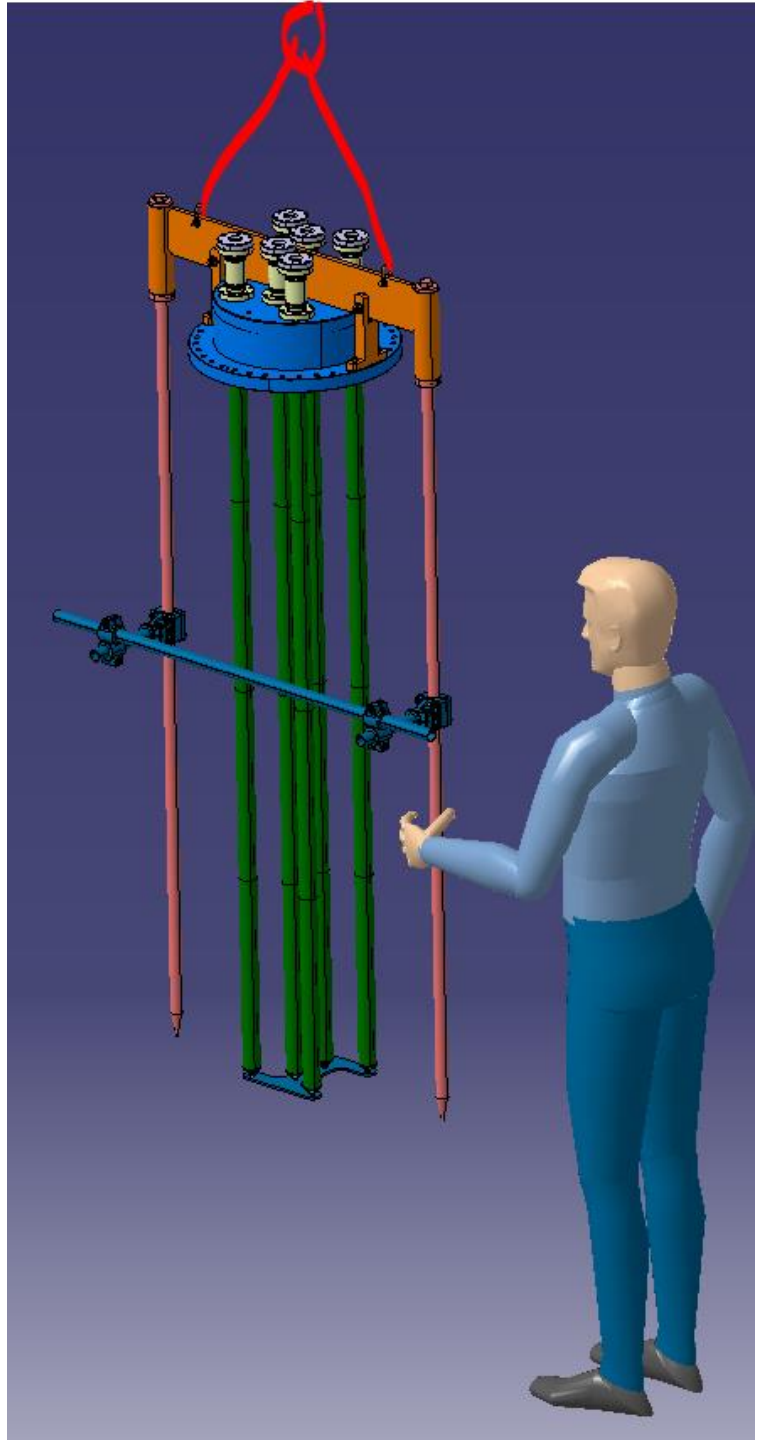
- Cathode support from top, cathodes slid in from the bottom fix with tie plate
- Requires ample space for working
  - Needs more space for sliding in the 400mm cathodes?



# Assembly

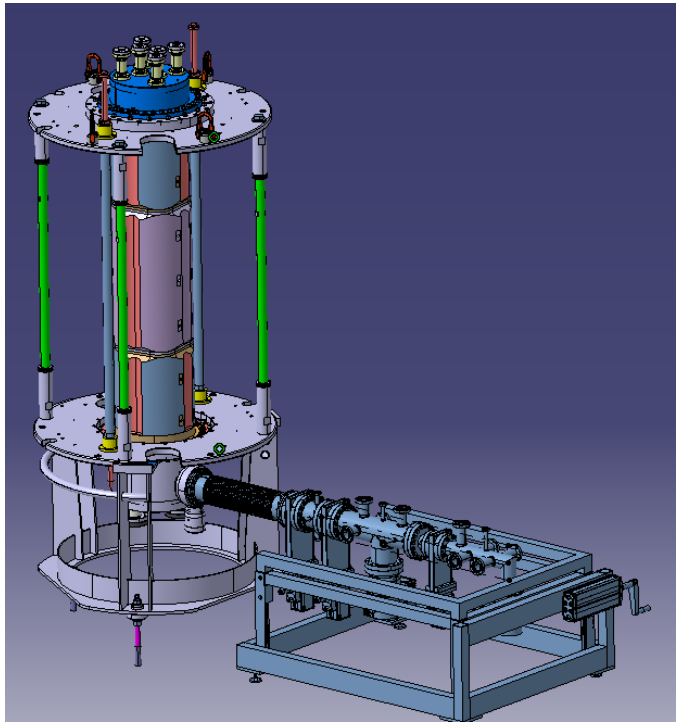
- Lift the lifting bar in place
- Lift-off and attach stiffening rib

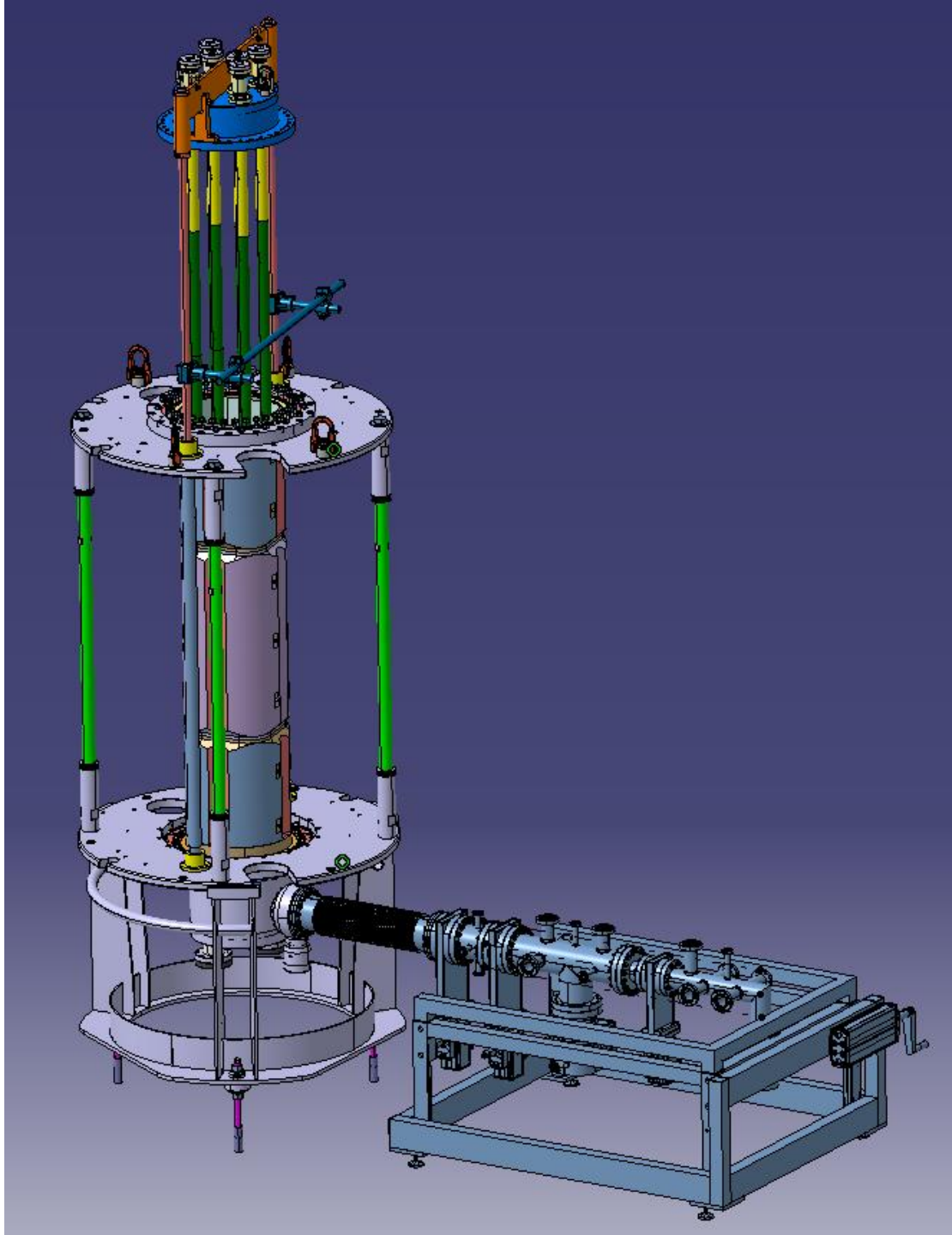




# Assembly

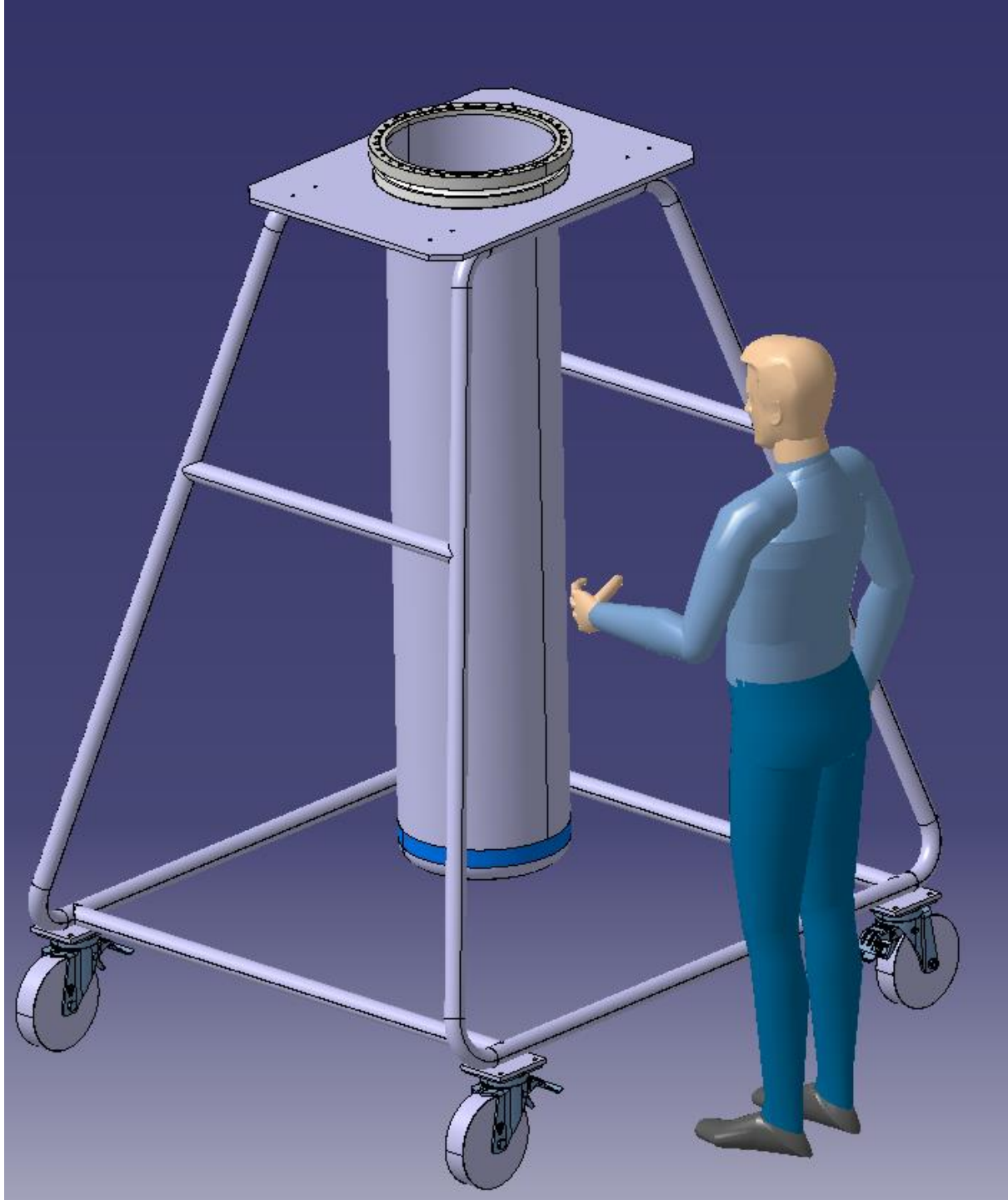
- Put it in, don’t scratch the cavity
- Remove stiffening rib after ½-way in
- Assemble, remove lifting gear





# Disassembly and storage

- Lift the storage pod onto the storage unit



# Disassembly and storage

- Lift the storage pod onto the storage unit
- Remove rib, leave lifting gear on, or lift it next to the cathodes.