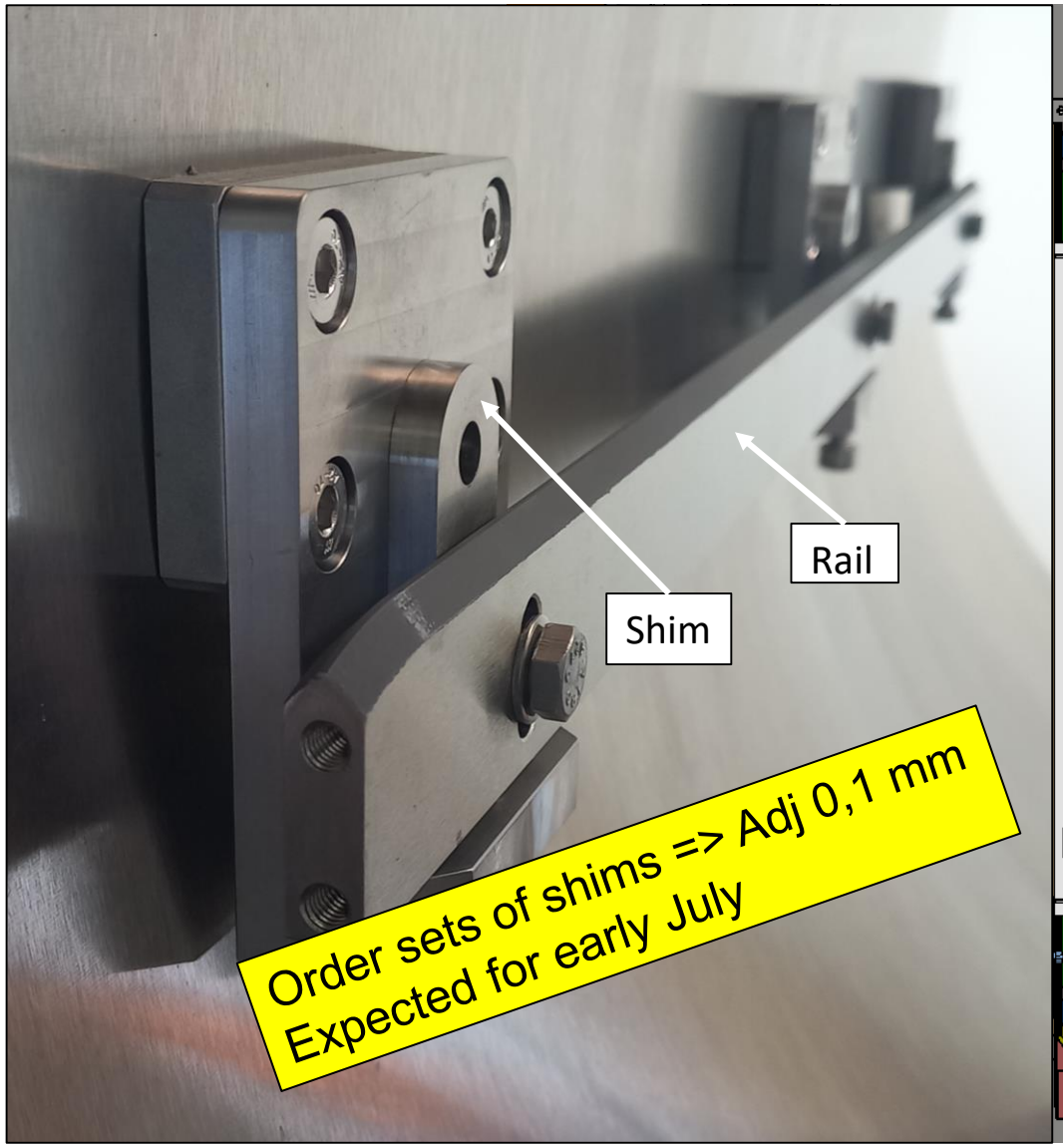
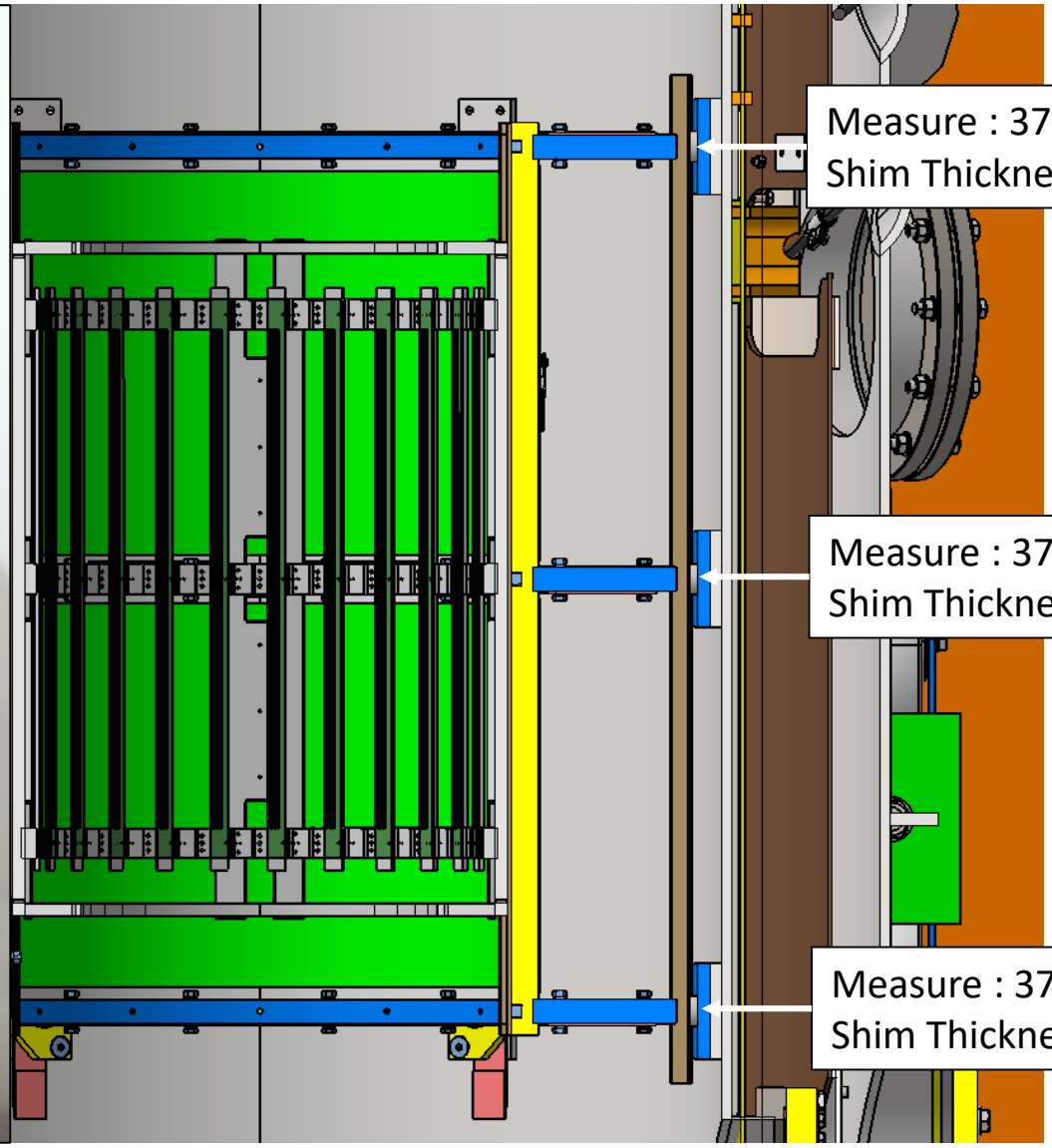
# MadMax Prototype - OB300 Installation
# Status of components and Tools

MadMax Meeting at Hamburg

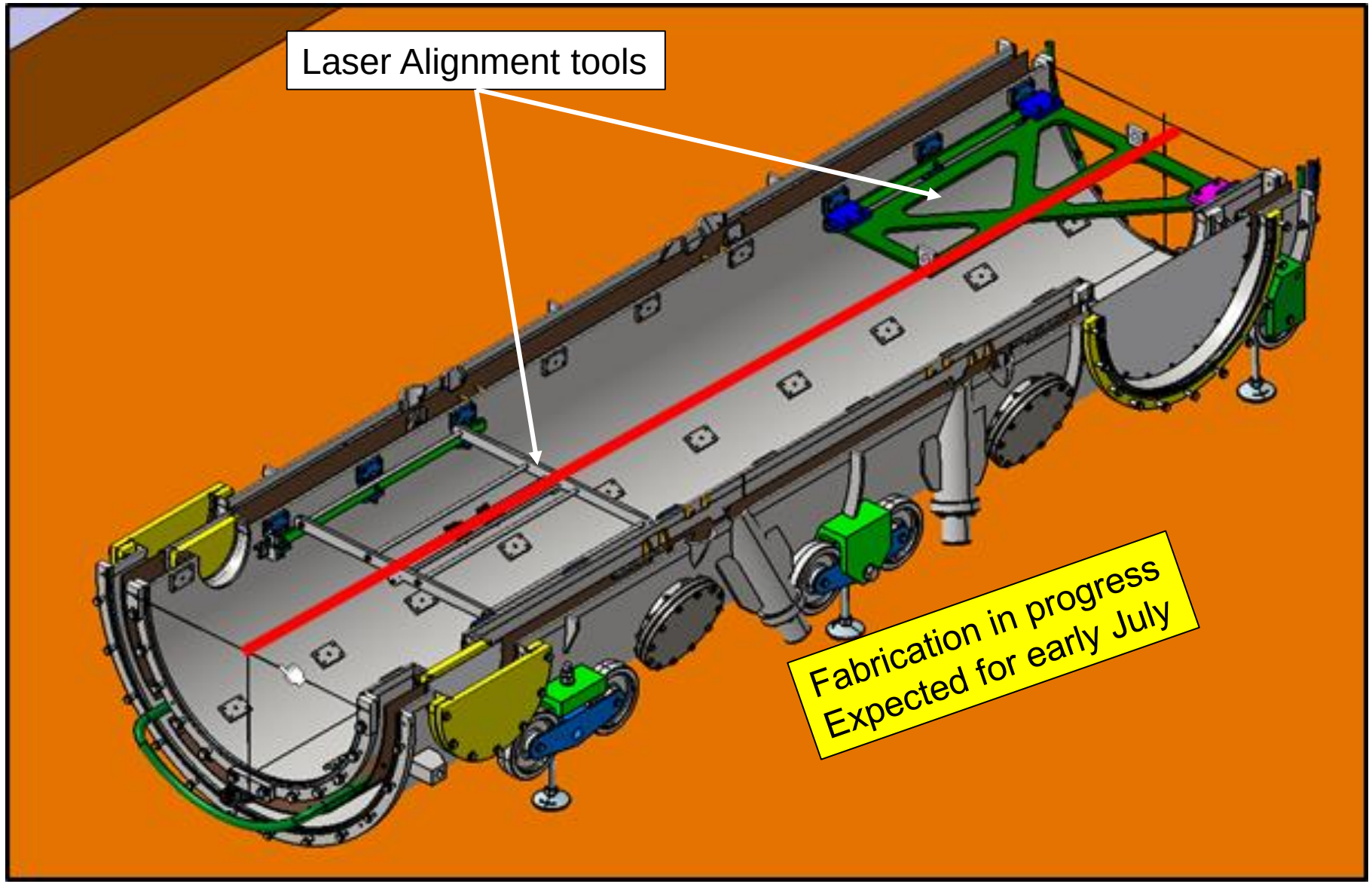
July 3-4, 2025

# Rail installation preparation

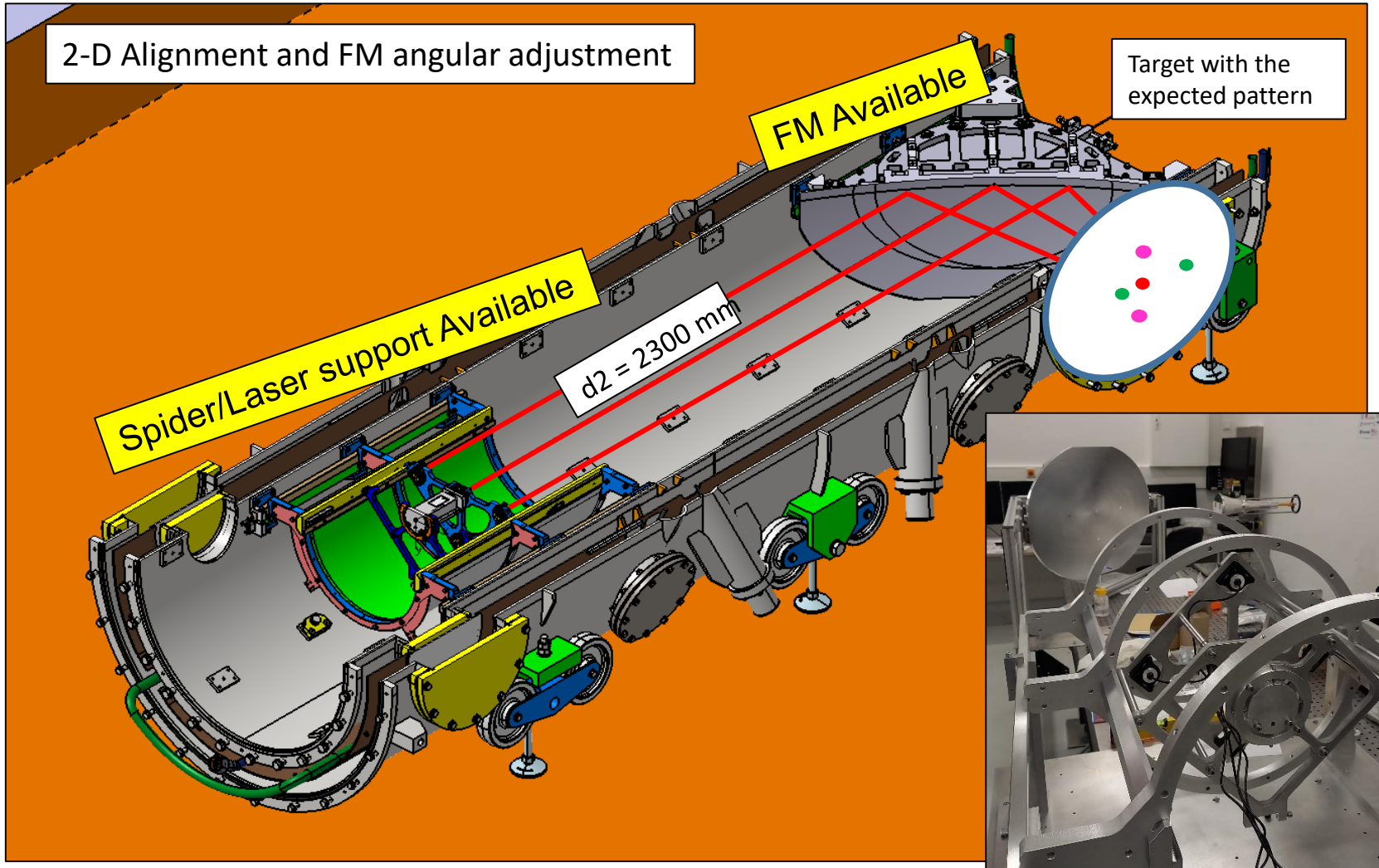


# Project OB300 – Alignment : 1 - Spider/Booster positioning

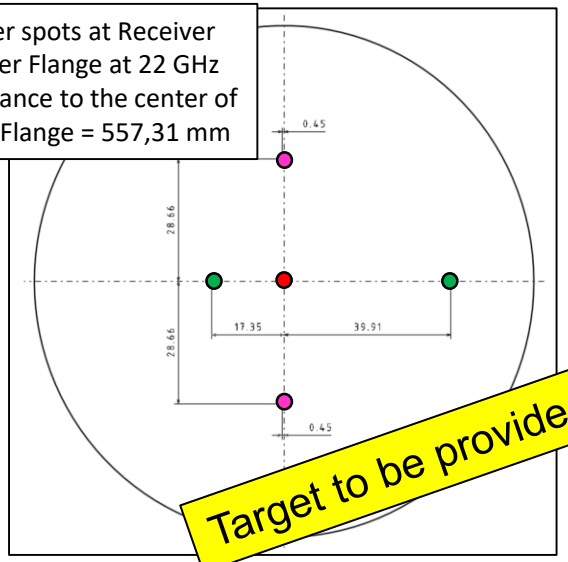


# Project OB300 – Alignment : 2- Focusing Mirror Installation and adjustment

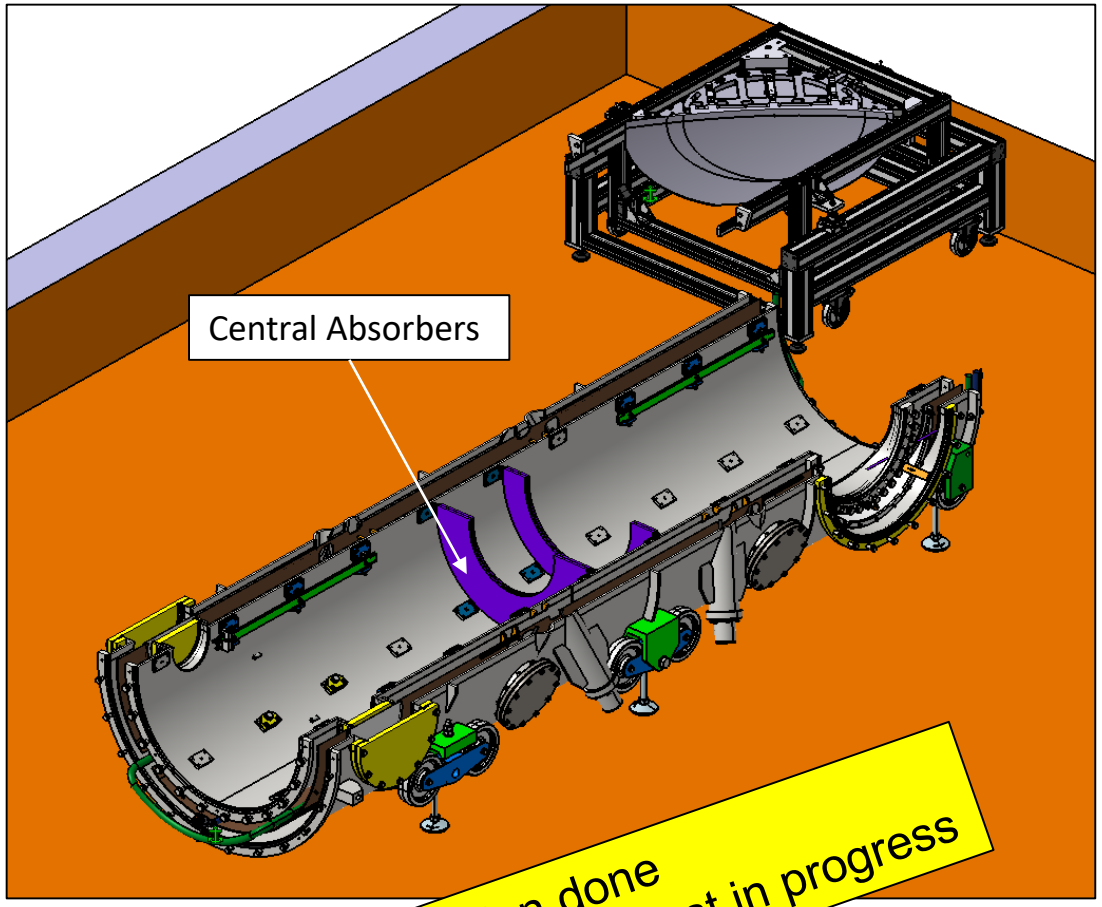


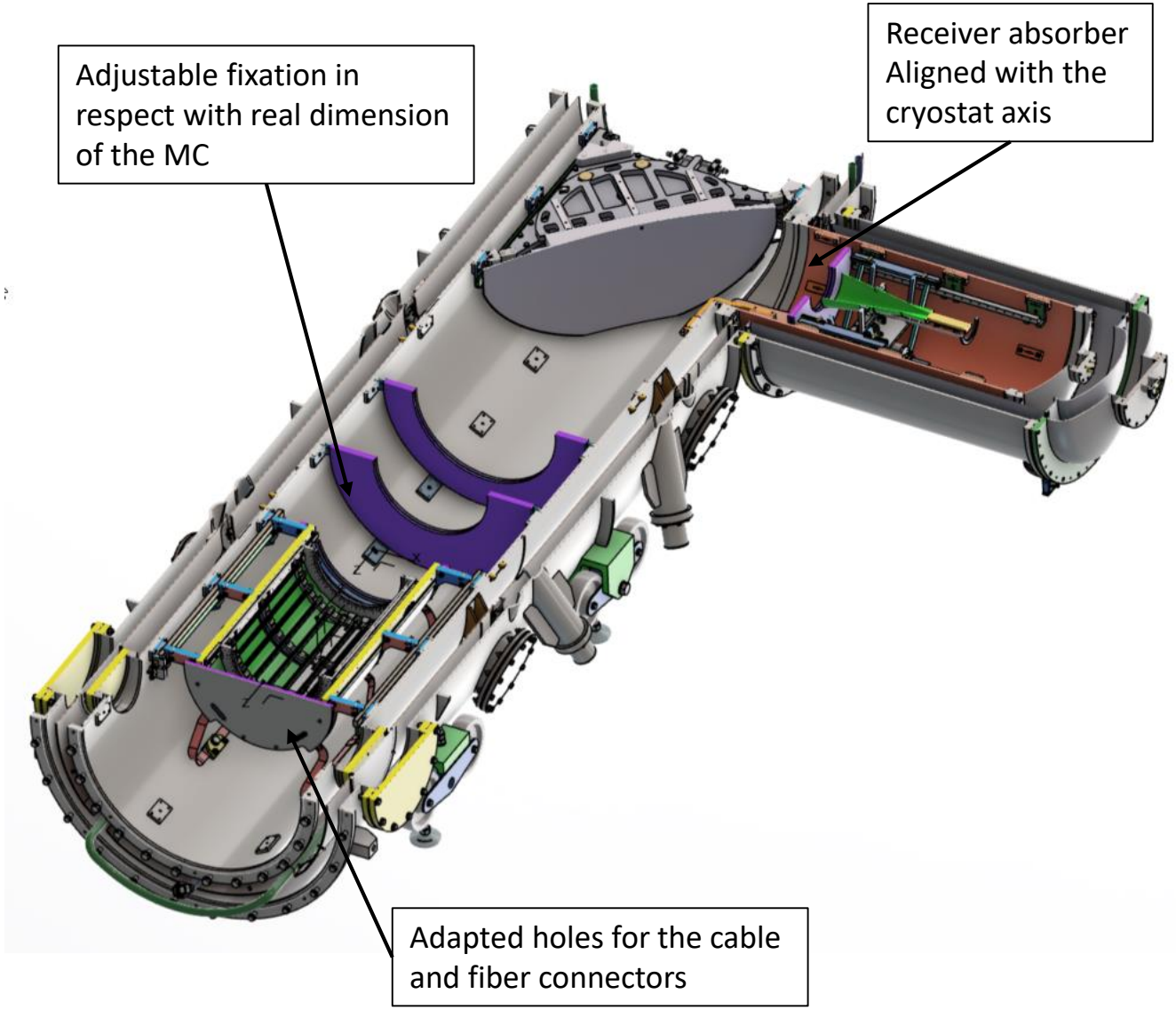


Laser spots at Receiver Outer Flange at 22 GHz
Distance to the center of the Flange = 557,31 mm

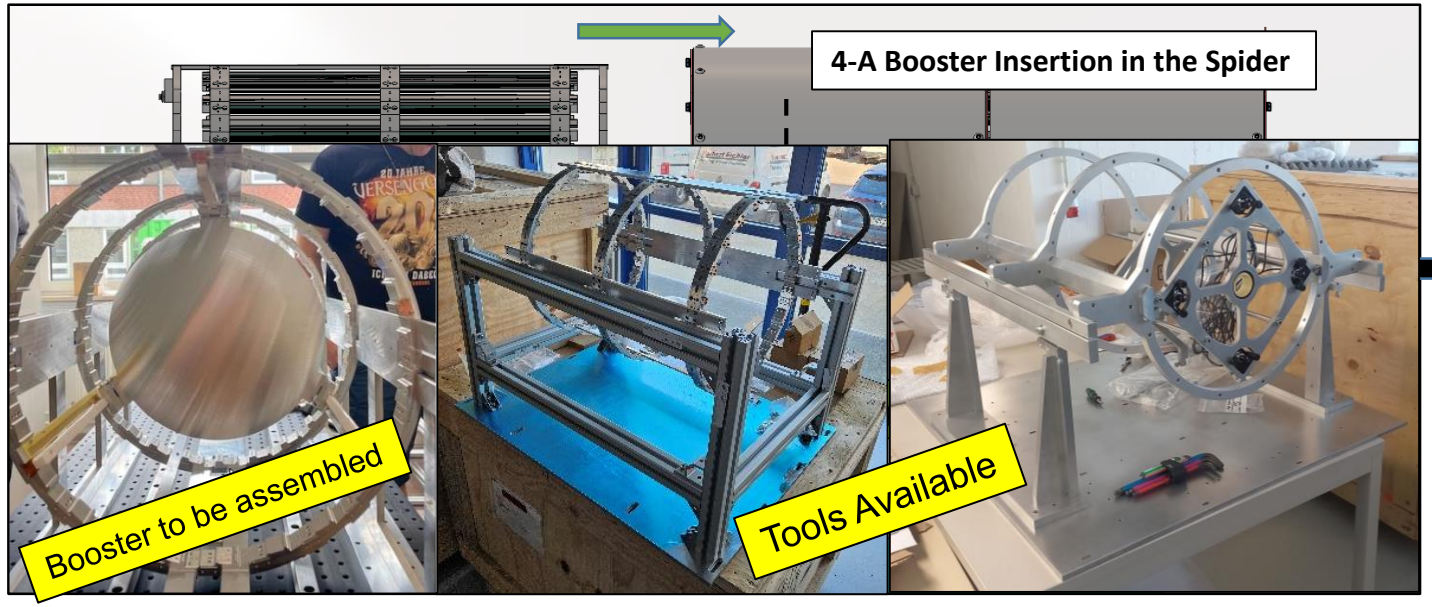


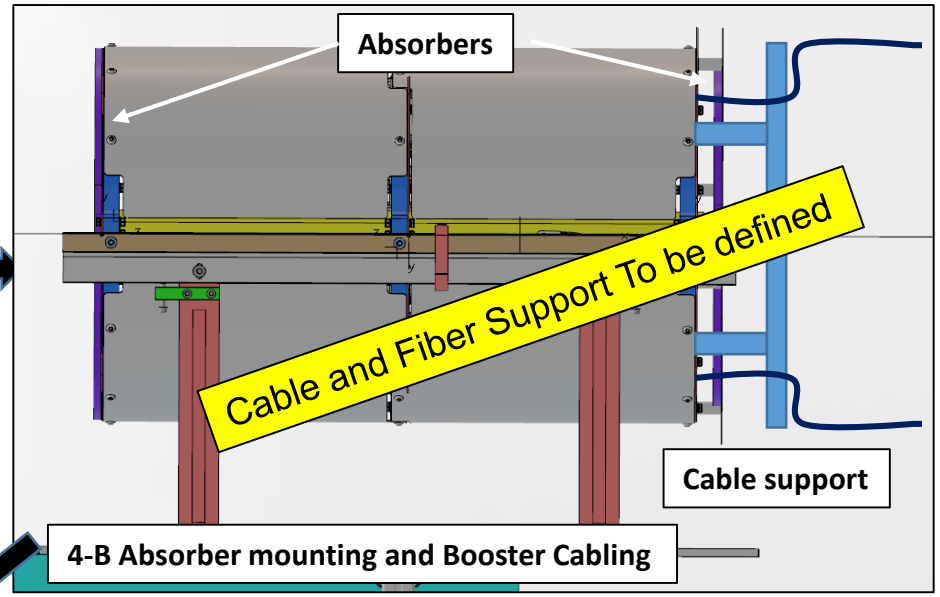
# Project OB300 - Alignment : 3- Absorber Installation in the inner vessel

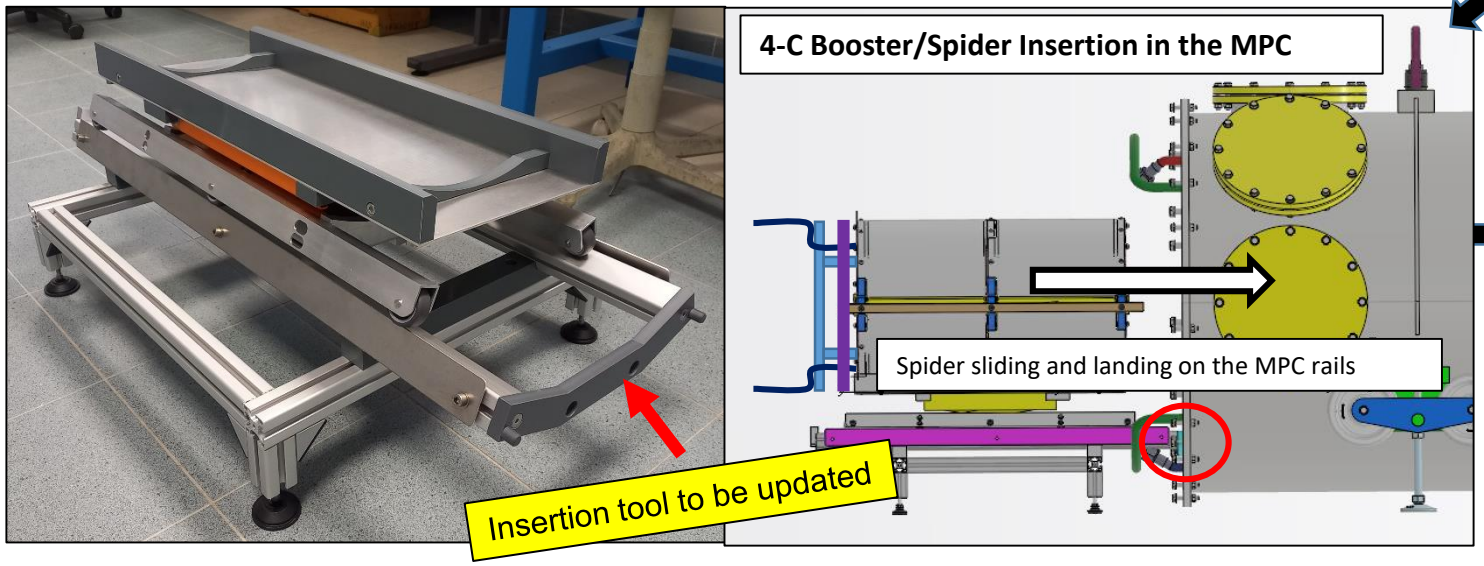


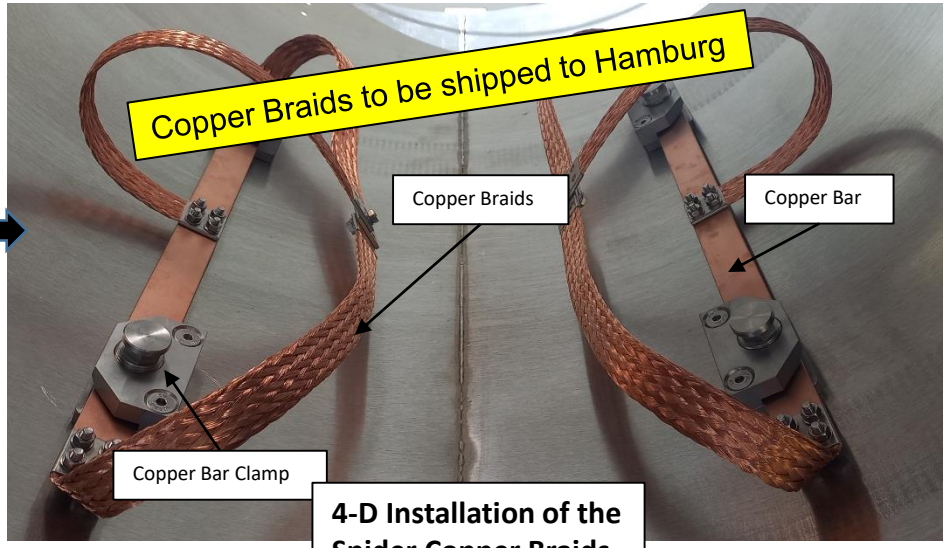



# Project OB300 - Alignment : 4- Booster Insertion

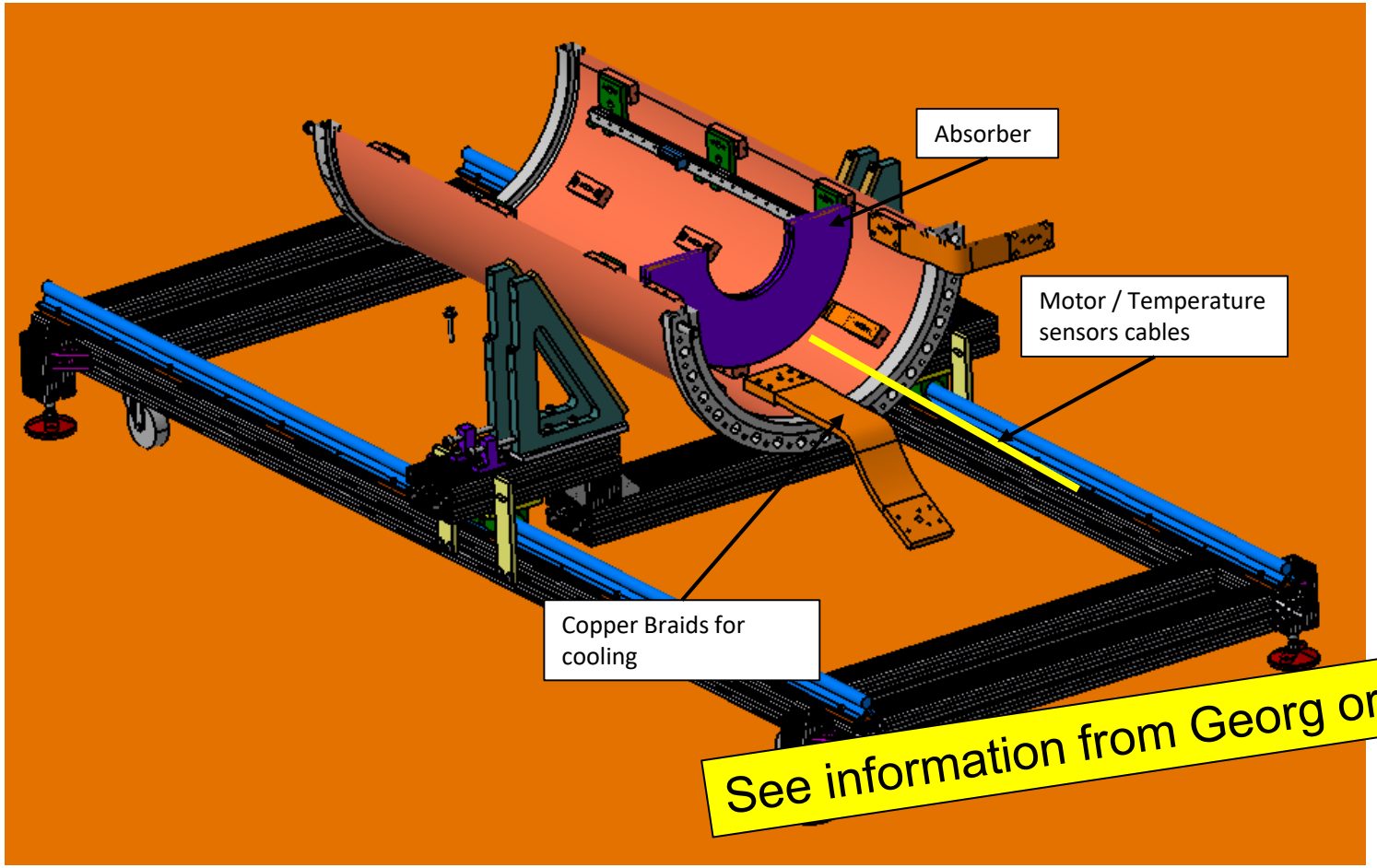


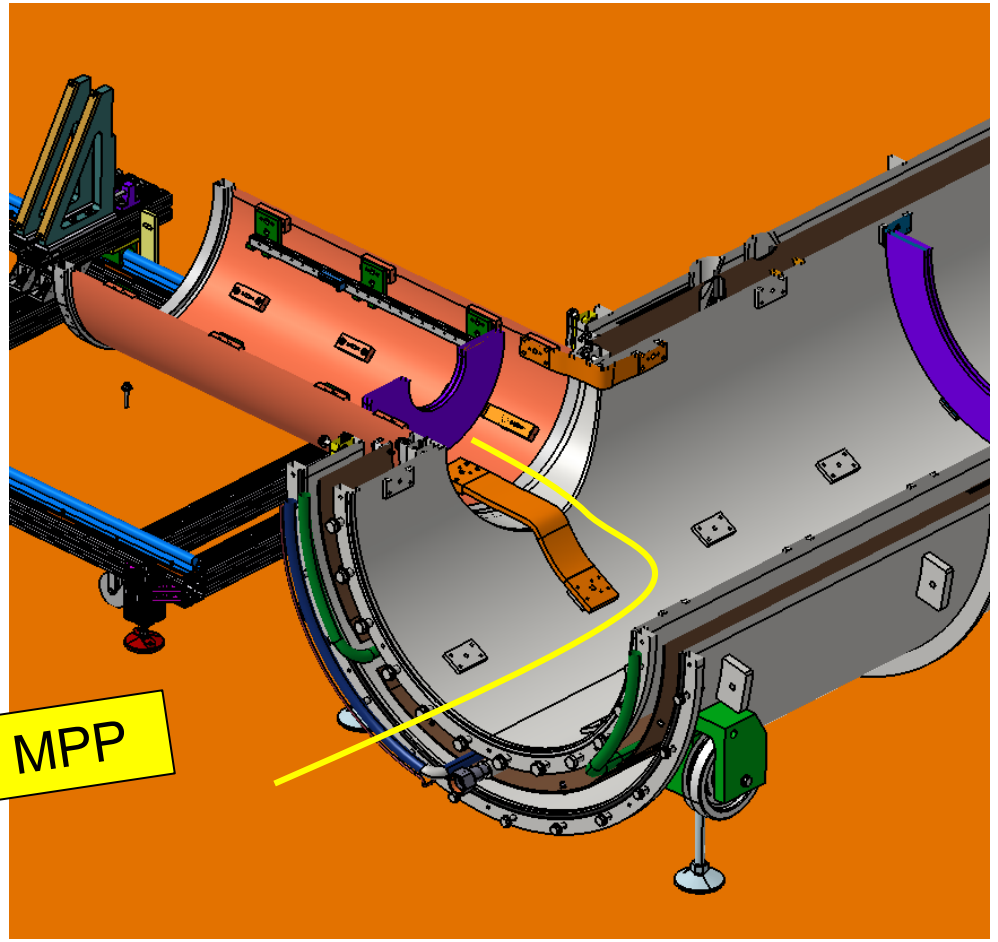



# Project OB300 – Alignment : 5 – Receiver Installation

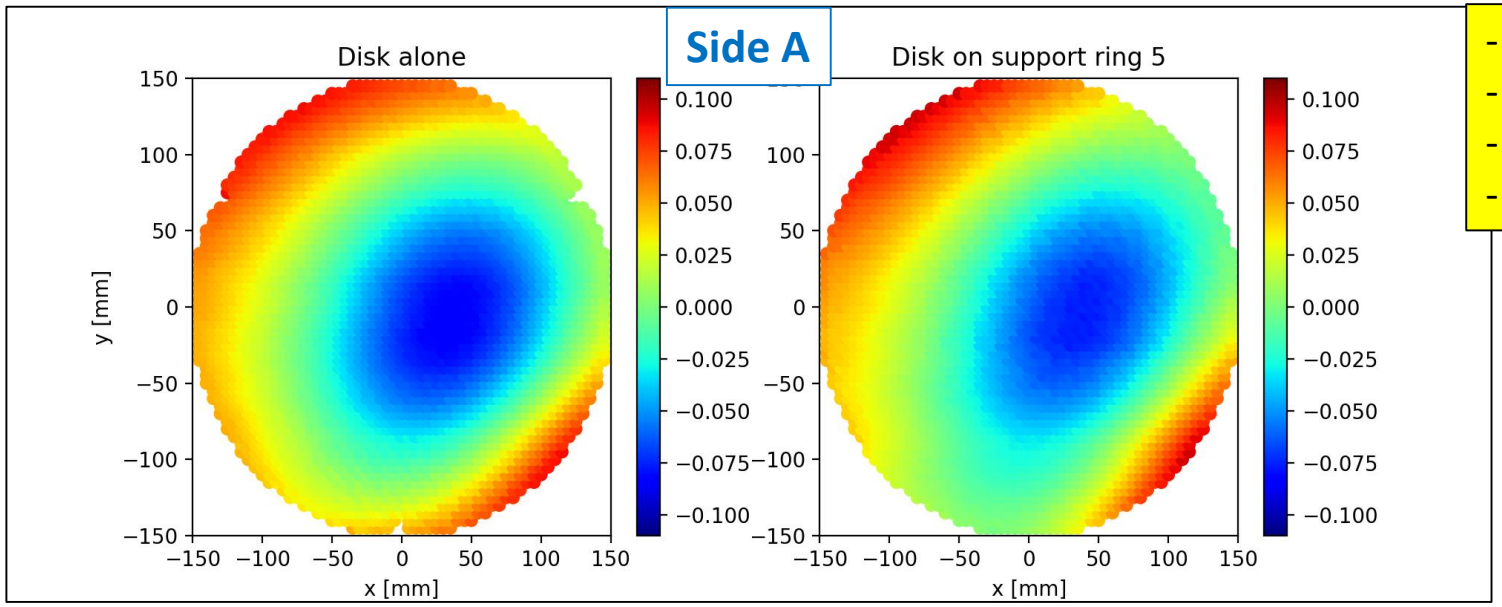


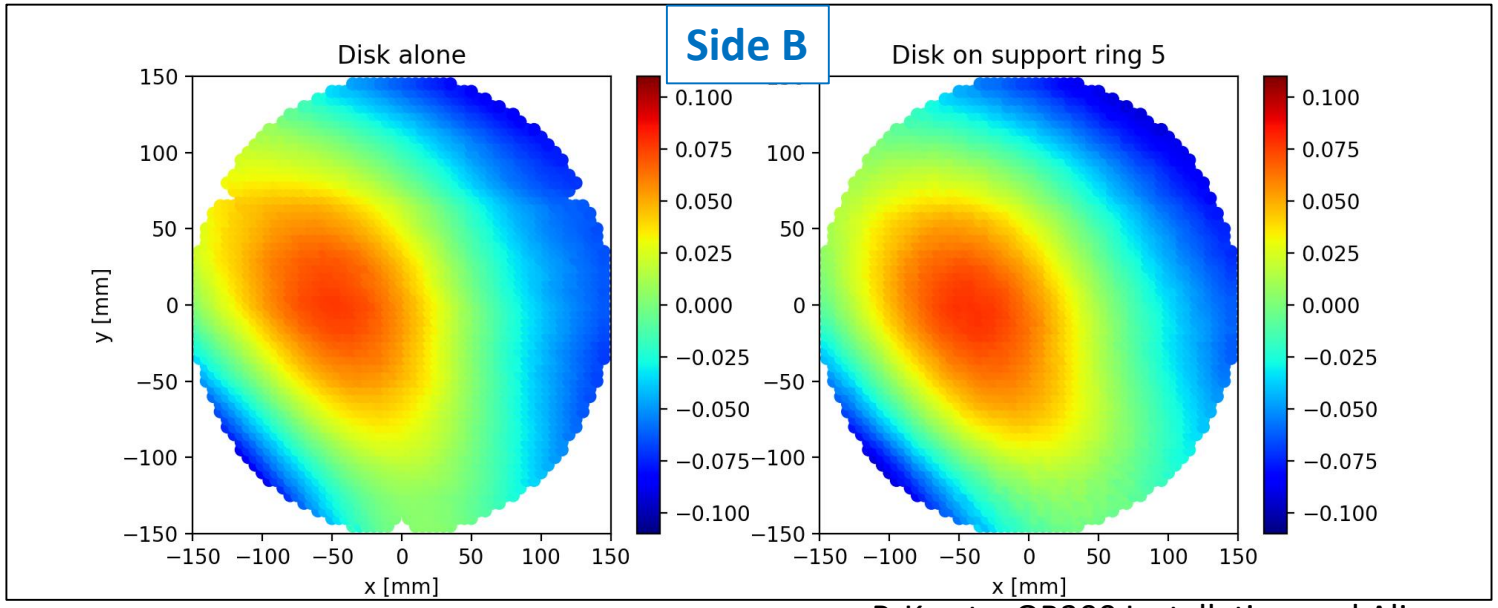

5-A Equipment of the Receiver Inner Vessel



5-B Mounting of the Inner Vessel on the MC

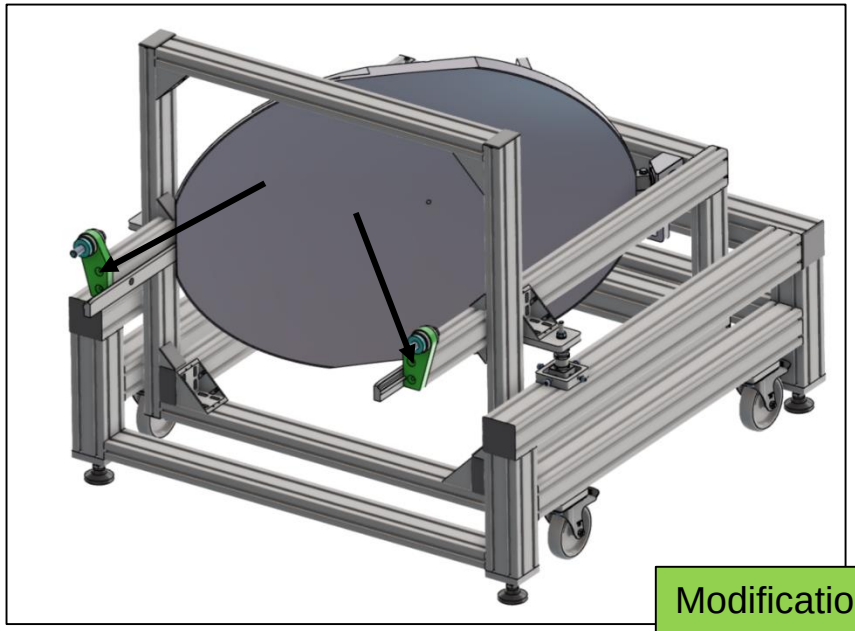
# Disk 5 measurement

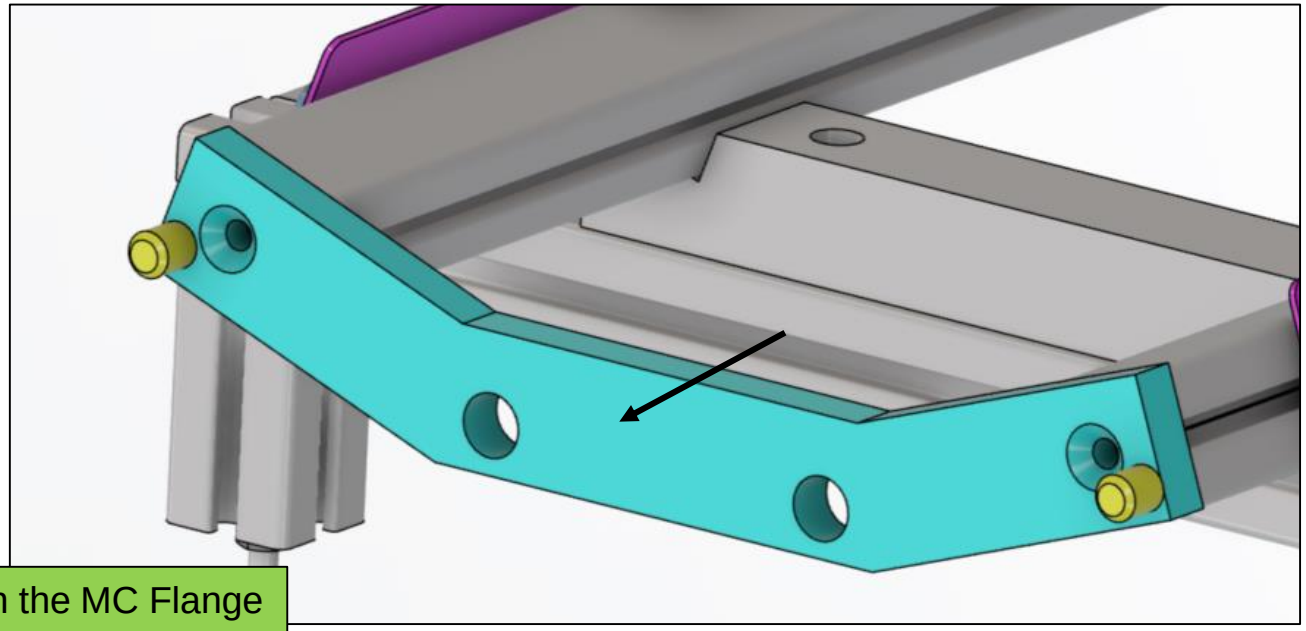


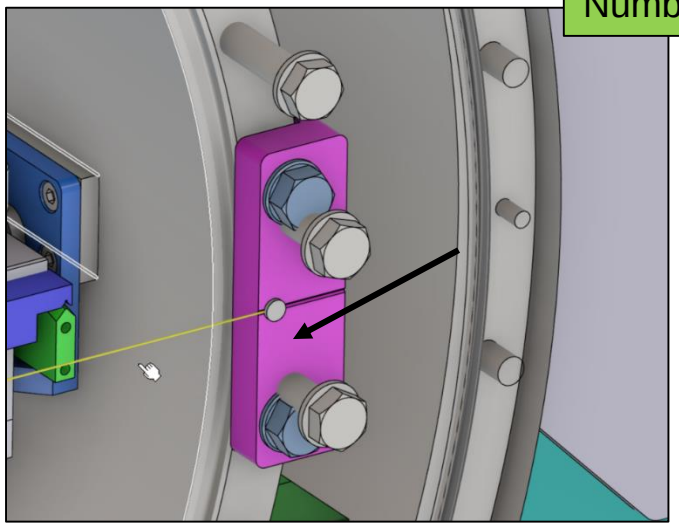

- face A without ring: RMS 43 microns (173 min-max )
- face A with ring 5: RMS 41 microns (172 min-max )
- face B without ring : RMS 41 microns (160 min-max )
- face B with ring 5: RMS 42 microns (170 min-max )

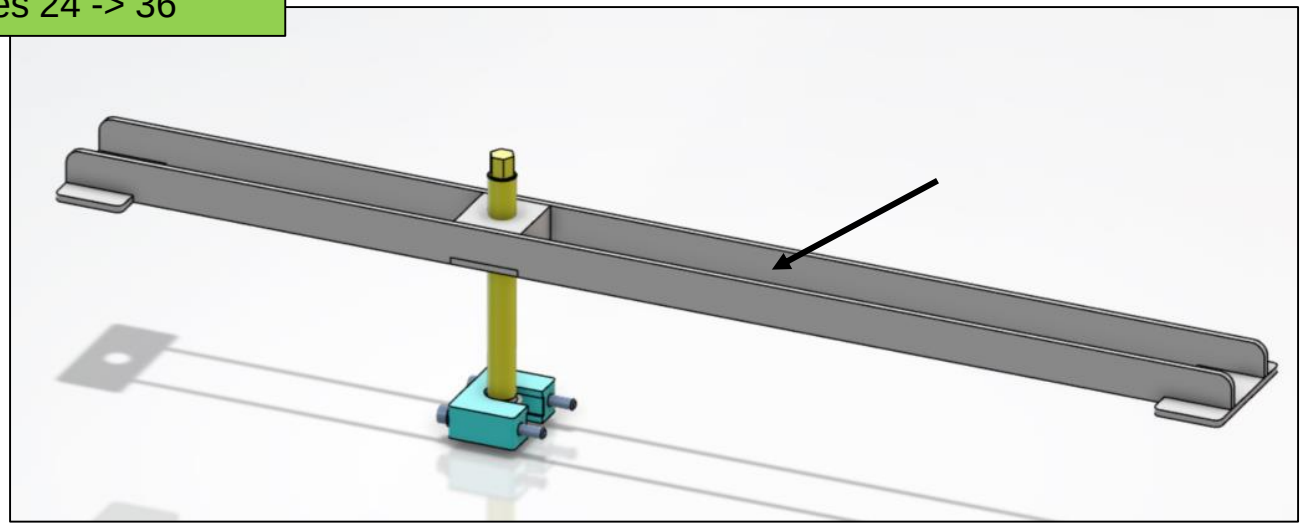

# MC – Inner vessel Flange modification : Modification





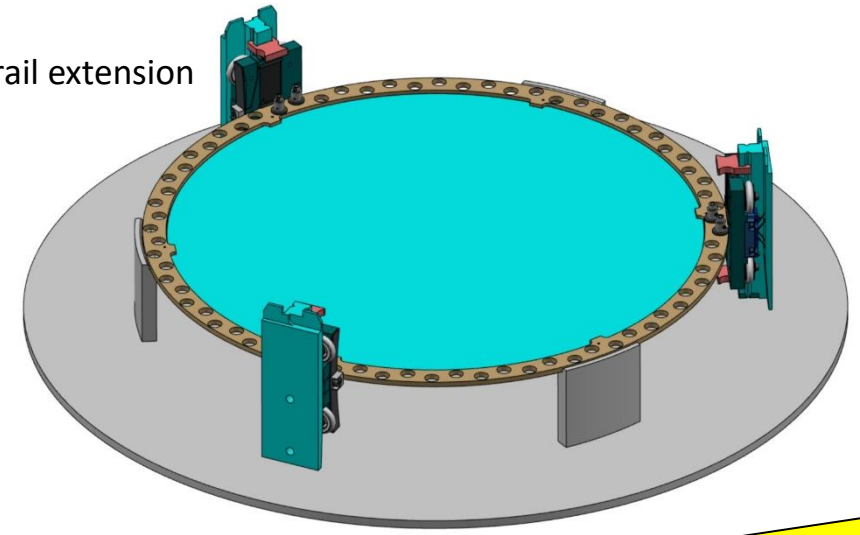
Modification on the MC Flange
Number of holes 24 -> 36





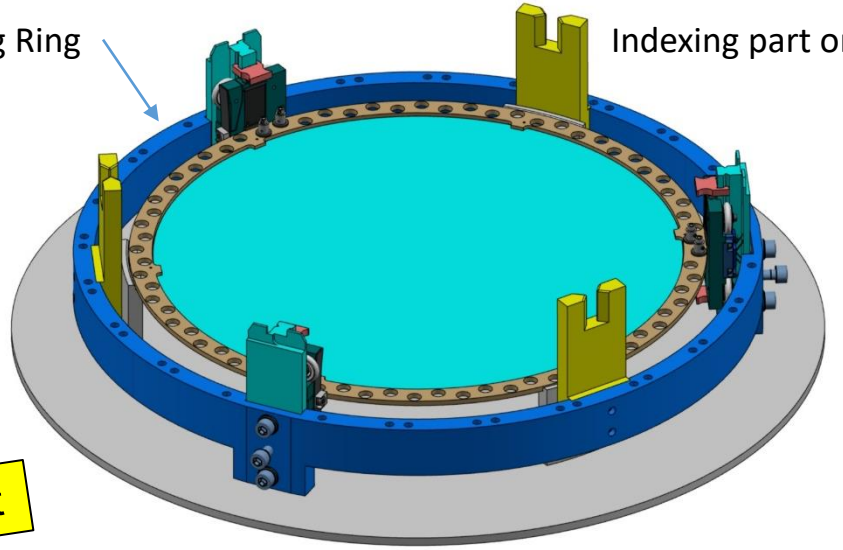
# Disk insertion in the Booster

Carriage + rail extension



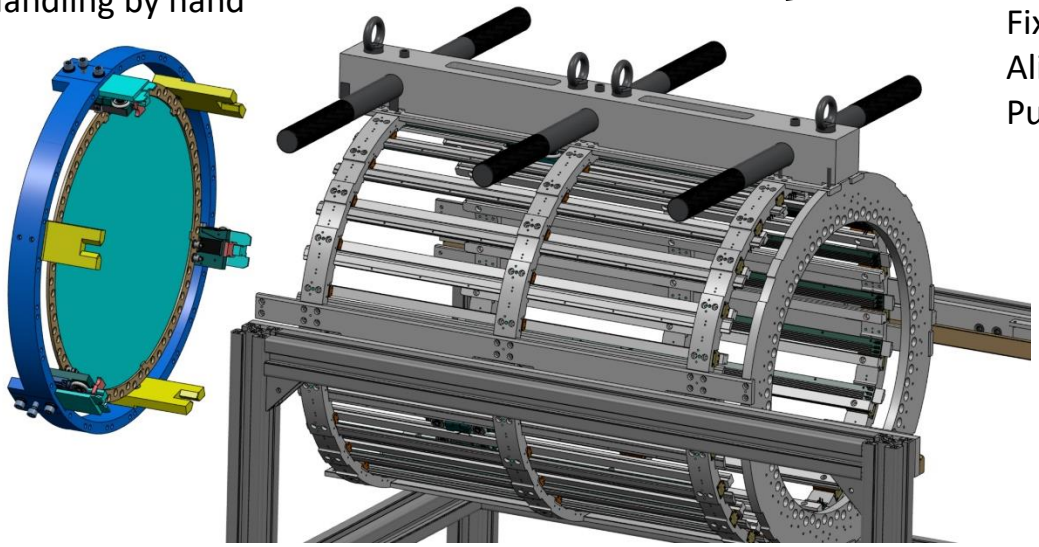
Supporting Ring

Indexing part on the rails

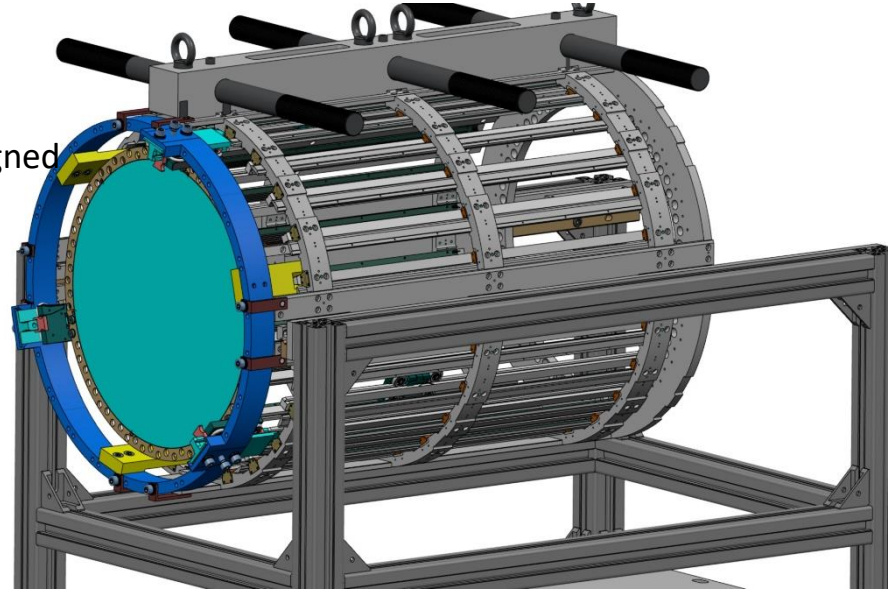


Design in progress => Mid August

Handling by hand



Fixed with clamps
Alignment Rail/Extension
Pushing with a tool to be designed



# Project OB300 : Component Availability

| Step | Component | Comments |
|---|---|---|
| In Design | Absorbers<br>Laser Target on Flange<br>Booster Fiber and Cable Support on spider<br>Disk insertion Tool in the Booster | July<br>September<br>?<br>End of August |
| In Fabrication | Alignment Laser and Target Tools<br>Receiver Cryostat<br>Antenna mechanism<br>Receiver Assembly Tool | July<br>September ? |
| To be updated | Focusing Mirror Insertion Tool<br>Spider insertion Tool<br>FM Fine tuning Tool | Interface with MC => October |
| In Assembly | Booster<br>Disc ring | To be shipped in July |
| Available | MC rail system + Spider Copper Braids<br>Spider/Laser holder<br>Spider Support<br>Booster Support<br>Focusing Mirror | To be shipped with the CPPM Tools |