



Forward Endcap EMC - Mechanics Update

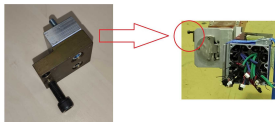
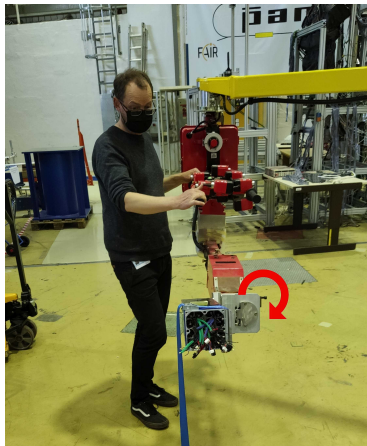
PANDA Collaboration Meeting 22/1, GSI, May 31, 2022

Claudius Schnier

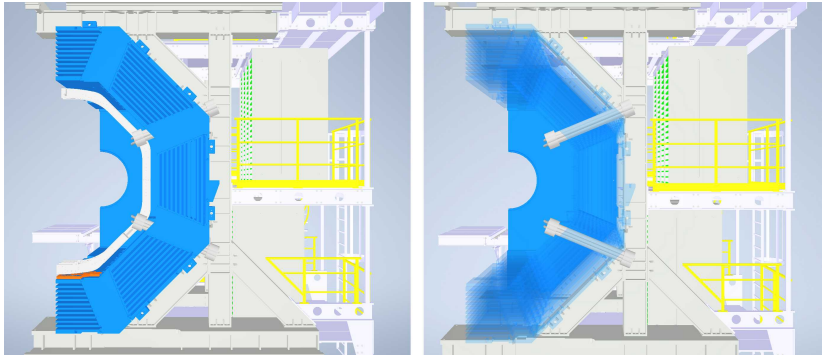
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Manipulator Arm Tests, FZ Jülich

- Mounting of submodules to the right and left of the beam axis requires a different position of the bracket in each case
- Adjustment block needed for 180° rotation

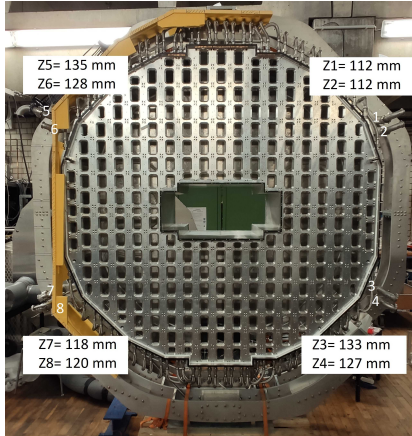
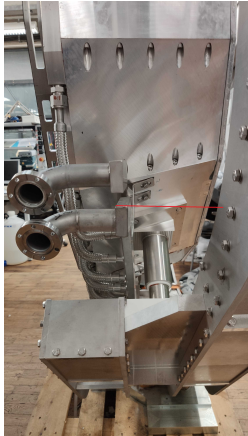


Cooling Lines



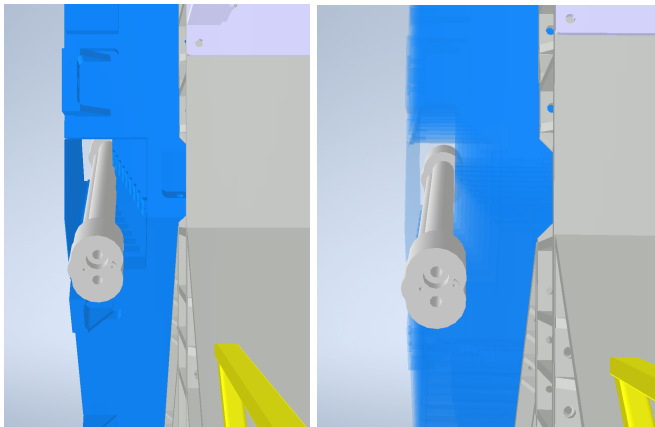
- Added cooling lines with supplementary insulation

Cooling Lines



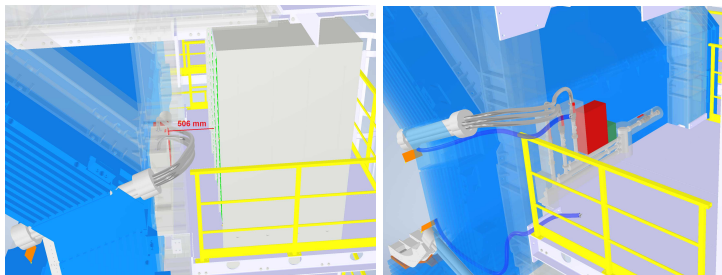
- Z=136 mm needed to avoid clashes inside the solenoid
- Adjustment via metal rails with long holes

Cooling Lines



- adjusted z-position of cooling lines by +20 mm

Cooling Lines



- 6 pipe radiators for coolant temperature control (3 per side) with electronics needed
- With suggested position, 506 mm space remains for rack mounting (172 mm less)
- For cooling and especially for the cables, a holder is necessary (cable trays)

Summary

- Manipulator arm adapted to ensure submodule assembly from both sides
- When mounting the cooling lines, we must pay attention to the exact positions required
- Proposal of the pipe radiators (with associated electrics) positions on the right/left outside of the solenoid in each case
- Cable trays and supports for the cooling lines are required between the magnetic feed-throughs and the racks.
- The possibility to store cables on the floor or ceiling of the rack platform would be helpful