Testbeam @ DESY

LCTPC WP 252
20.10.2016
R. Diener

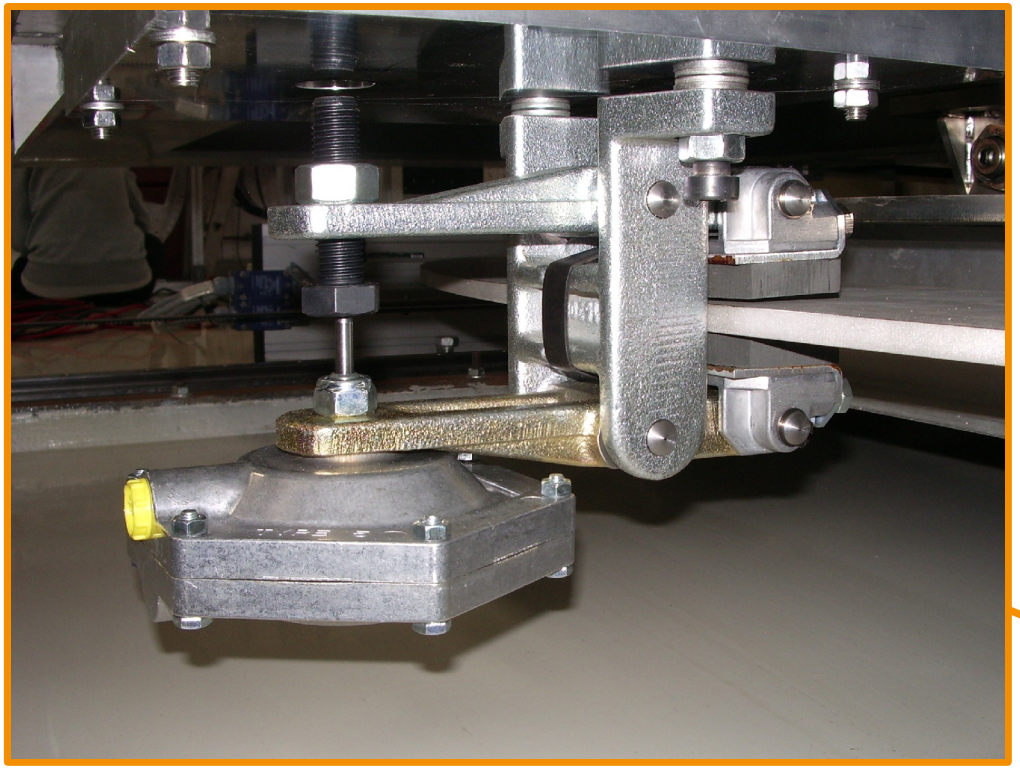
Testbeam Setup

- New gas cabinets (safety)

- Hut rearranged and cleaned up

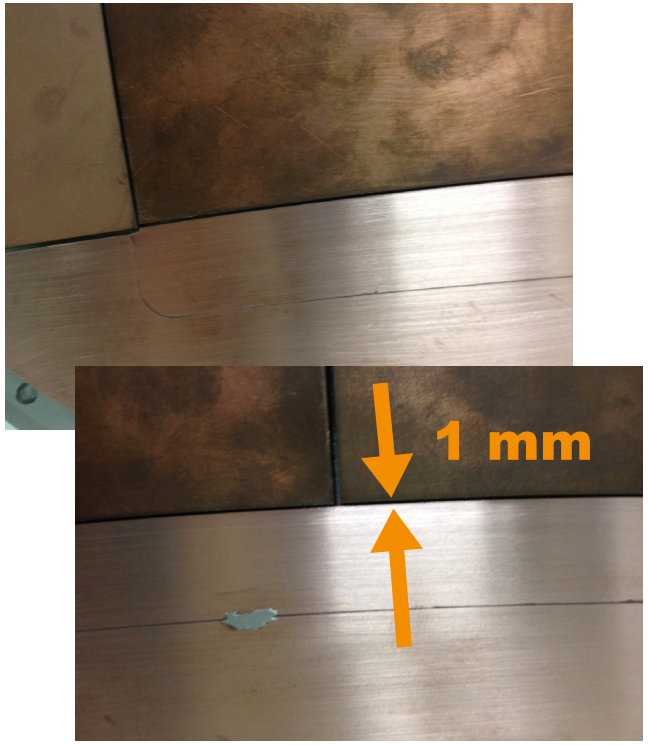
Testbeam Setup

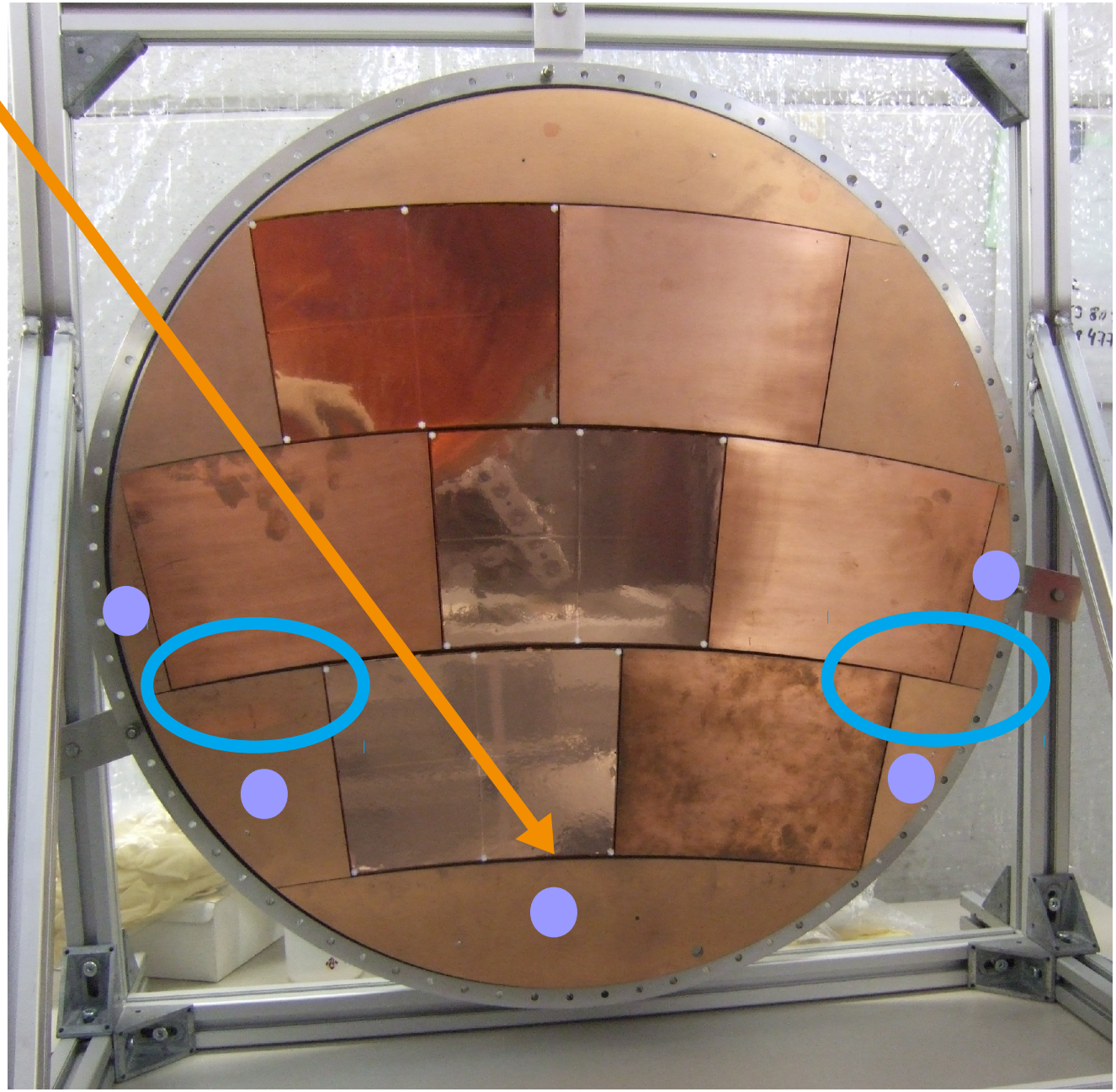
- Movable stage:
  - Control: PC → PLC
  - Brakes that stop “ghost” movement in magnetic field:
    - Horizontal: switch from belt drive to screw drive using a spindle - waiting for material
    - Rotation: hardware being installed + software being extended



Large Prototype

- Lower endplate termination plate adjusted:
  gap now with same radius as the modules
  (quick fix: inserted a copper plate)





- Planning to replace more termination plates to adjust all radii

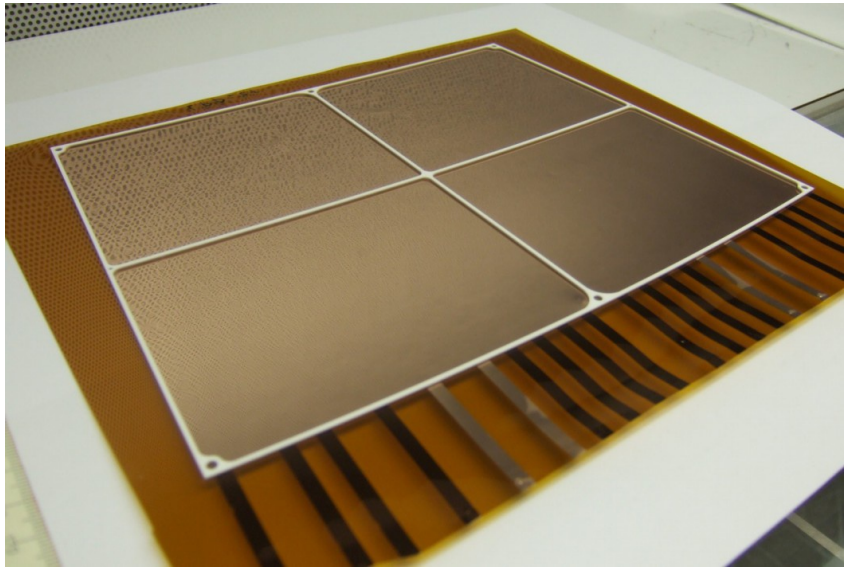
September Testbeam - Aftermath

- Due to delivery problems, tried to refurbish old, partly damaged modules
  → Did not work out

- Study of source of HV Instability
  - First module tested
    - Discharge probably not in the GEM but in the HV distribution
  - Investigation (of all 3 modules) ongoing

New Modules

- Ceramic frame order finally ongoing
  - Expected delivery end of October or beginning of November
- New GEMs being tested before glueing
- Preparation of glueing process and tools ongoing → smooth and quick assembly once all parts are available



- Target for double track studies ready
  - Stainless steel, ~50% X_0
  - Expected: ~3% double tracks, which are overlapping at the entry and well separated at the end