

on behalf of the Clas12 MVT group

*IRFU, CEA Saclay,  
91191 Gif-sur-Yvette, France*

- Test of pre serial forward and barrel

- Grounding of resistive layer to be modified

- With resistive layer the detector can not eliminate dust. Even if integrated in clean room the guaranty of zero dust during lifetime is not possible.
    - The first test shown a loss of  $\sim 1/3$  of detector due to dust after serval days.
    - An individual grounding of resistive strips can allow functioning of detector with only the loss of few strips ( $\sim 3$ ) when a dust is present. Gerber file where modified for serial detectors

- Mechanics & gas

- The general integration process is validated for curved and flat detector
    - Forward detector FR4 central structure was changed to peek (less material)
    - Gas circulation and tightness validated (leak under 0,01 l/h for nominal flow of 5 l/h)

- Production of serial detector

- Under realization at CERN, Test of 6 barrel (for two layers) and 6 forward detectors planned from March to July 2015

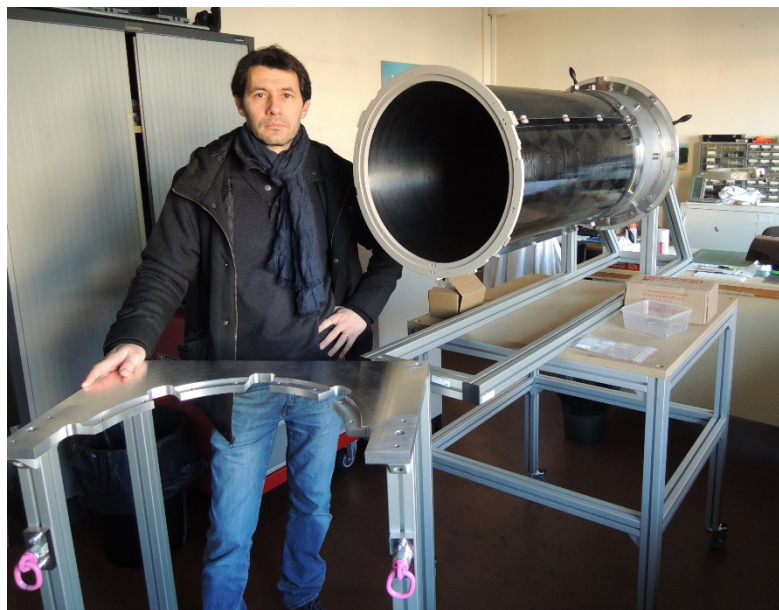
- Barrel & forward structure

- Barrel

- barrel carbon structure produced and integrated at Saclay.
- Gluing of carbon structure with tube flanges done
- Integration on MVT tube in February 2015
- Tolling for barrel integration and transport integrated.

- Forward

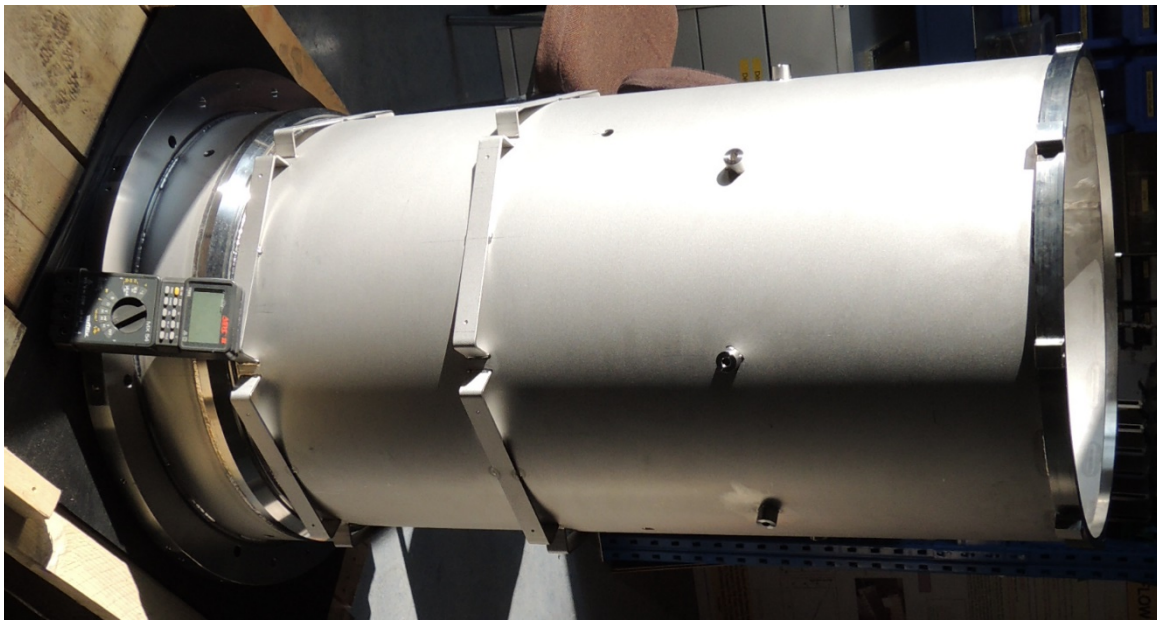
- Peek flange for forward integration received & tested



- Tube structure

→ MVT tube

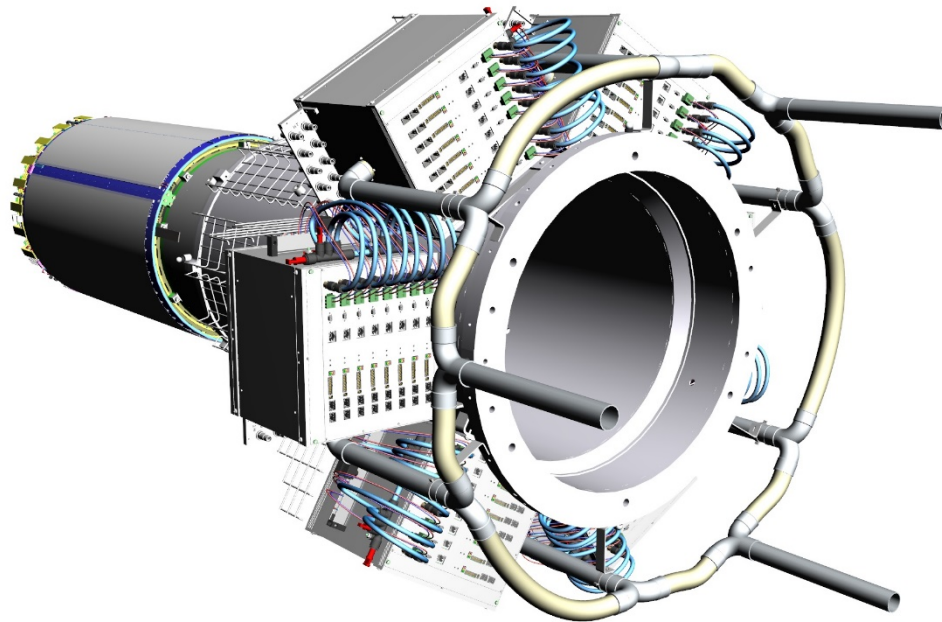
- MVT tube structure in 904 L stainless steel received and validated
  - One re-machining for B2 flange adjustment to MVT tube (0,2 mm play, but geometer target)
- Tooling for general integration under realization. Integration of the structure with first electronics boxes in spring 2015. Cables routing on tube to be tested in spring for B2 configuration (for B6 use of all B2 cables on one 120° sector ?)



- Tube structure

→ MVT tube

- Service located at the end of tube under design (HV and gas dispatch panel, cooling air evacuation). Drawing to be send (end February) for validation by Jlab



- Gas pipe in hall B

→ Final gas installation (mixing units) or temporary (premix gas) ?

- Preparation of cosmic run in hall B on 2<sup>nd</sup> floor in fall 2015
  - Cables & pipes (fibers, HV, gas, air)
    - Localization of the cosmic test = length of cable. Would be “nice” to use same cables than nominal instrument
    - Supply of HV cables and fiber ~ end of February
  - Pre integration meeting at Jlab in ~ June 2015
    - Finalize planning & stages
    - Work on services (gas, control-commands)
    - Data taking tests (Irakli presentation)
  
- Cosmic run in hall B on 2<sup>nd</sup> floor in fall 2015
  - Planning of integration do be done before summer (for people availability in fall 2015)