

Meeting on vacuum for LHC RF IR4
7th Aug 2003

Present: Volker Rodel, Edmond Ciapala, Miguel Jimenez.

APW:

- Ferrites and vacuum: Standard VA procedure for bake-out of ferrites includes 1 hour at 1000 °C. Special ferrite with good vacuum properties is used for injection kickers. This should give adequate vacuum for LHC (better than 1E-9). Should we be using this for the APW?
Action: Need consultation between M. Jimenez and T. Bohl, J-F Malo, H Preis, also S. Mathot.
- e-cloud: no problem due to ferrites being further off axis than nearby metallic (copper) parts.

Fast sector valves & protection

- Use of modified sector valves as radiation stoppers: VA group starting to look at this. Will install one per ring at the limit of the RF zone on each side. The space required is the same as for the original sector valve
Action: VA group will inform the Integration WG of the four stoppers so that exact positioning can be established

ACS:

- Space for vacuum equipment: Space has to be reserved (on floor between the modules) for insulation vacuum equipment, compressed air tank for valves and bake-out equipment.
Action: Miguel to sent mail to R. Valbuena.
- Valves on second beam tube: There will be no valves on the second beam-tube and they should not appear on the integration maquette/template.
Action: Check that maquette does not have valves on second beam tube. Volker+ Claude.
- Pirani Gauges: A problem with connecting to certain Pirani gauges on the vacuum cross-pieces has been solved by using an elbow connector.

ADT:

- Vacuum tests on two pre-series kickers: These have just have been received. Rhenium is used in the metalisation of the ceramics. However no special vacuum problem is anticipated. The kicker plates contain Nickel and the bake-out temperature has to be established.
Action: Ongoing tests with VAC and damper specialists.

ACN:

- Vacuum cables: Cables for pumps and gauges will be installed. Even before installation of the cavities these cables can be used for vacuum equipment in the area.
- **Action:** Put cables in DIC lists, J-C Billy, (J-C Perrier)

Cones/ Transitions:

- Definition: no special transition pieces will be required. All done via standard pumping stations with appropriate dimensions.
Action: Layout of pumping to be verified, M. Jimenez

Electricity for vacuum equipment:

- The request has been done by J-C Billy

Compressed Air:

- Requirements: Compressed air is needed for sector valves. Line dimension and connecting points need to be specified to the Integration WG.
Action: Miguel/VA group

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