

Collimator Design Meetings

Minutes of the meeting 36 (22/07/2004)

Present: Aberle, Assmann, Calatroni, Hänni, Mayer, Perret, Redaelli

DETAILED LIST OF ALL DIFFERENT TYPES OF COLLIMATORS (WITH THE SUGGESTED ADJUSTMENTS AND PRECISION IF POSSIBLE) LIST WITH NUMBERS - INCLUDING ABSORBERS (MATERIAL, LENGTH, REQUIRED NUMBER OF MOTORS (?), COOLING, ANGLES, BEAM-SPACING) - NUMBER OF COLLIMATORS FOR THE TENDER. (RALPH)

Ralph will organize this list on the collimator WEB-page in week 31. No further modifications for the tender can be incorporated after the 30 of July as the drawings need archived in CDD with first and second control and changed to the label "FOR TENDER"

DESIGN OF RF FINGERS

1. **Model for the measurements – proposal (Manfred):** Manfred proposed to separate the investigation to decrease the resistance of the RF finger contacts by 2 orders of magnitude on a separate model, which gives better flexibility for measurements than on a complete collimator. This proposal was accepted. At least one – better 2 models will be manufactured in order to assess the main parameters (resistance and wear-and-tear on the fingers as well as on the metal components). Due to the low mechanical load, the 300°C bake-out is not an issue, as we can lose 90% of the contact strength at high temperature but σ_{max} must not go beyond elastic limit.
2. **Requirements ($m\Omega$, contact pressure, how to measure, bake-out):** Sergio will contact Roger to advise how to build this(these) model(s)
3. **Timescale for RF finger study:** This should start immediately.
4. **Can we implement this into #3 ? (Roger):** #3 is on hold for the moment. Several changes – other than the RF fingers – should as well be implemented. Roger will work on it and release #3 when it corresponds to a realistic series model. End of August (?)
5. **Can we implement this into tender documents (Roger):** NO
6. **Exact geometry of "SPS" fingers to calculate σ_{max} – at 300°C (Roger):** This will be done in connection with the model

SPS TEST:

1. **What needs still to be done - planning (Oliver)**
 - a. Re-measure after welding, bake-out, control, install
 - b. Measure, weld, re-measure, install
2. We have accumulated over 3 weeks of delay, but some of the operations are already carried out. We have to be very careful, especially with the remaining installation of measuring device and of the control-cabling. We hope that there is no leak on the vacuum system. TIME IS RUNNING OUT !
3. **Detailed planning of installation scenario and "dry-run" (Oliver):** Oliver will add ALL details onto his chart. Number of people, dates, names, transport, alignment in the tunnel.... This list will be put in circulation (deadline 28.07) for comments and approval by all concerned. A date for the "dry-run" will have to be fixed. This will include the transport ! and the relevant vehicles (Oliver)

AOB

1. Sergio will measure the resistance of the PT 100 in connection with the Mo-feedthrough on the water-flange in order to make sure that the measurements do not suffer from the relatively long Mo wires. The connection of the "MO-wire to Pt100" should be clamped
2. Energy deposition (heating) on clamping springs and front plate. Ralph will contact Vasilis.
3. Length of the primary collimator – Roger presented a model which will allow to adapt the length easily and which consists of a TCS model with some additional machining. No step.
4. Ralph proposes to carry out a risk – assessment study for the collimator system.