

Status of the MPI Module Production



Munich June 13, 2005

Richard Nisius (MPI München)

nisius@mppmu.mpg.de



Status of the production

short middle modules:

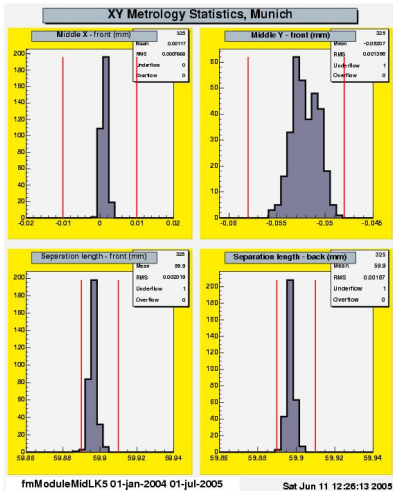
- 96 modules were started ($\epsilon = 85\%$).
- 40 modules are already working on disc 8C.
- 40 modules are installed on disc 8A.

long middle modules:

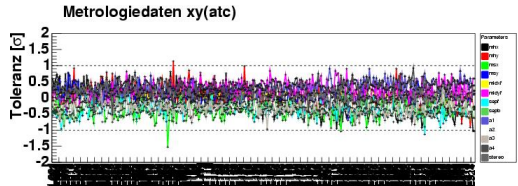
- 328 modules were started.
- 327 modules are bonded.
- 245 modules were send to Prague for final characterisation.
- 120 modules are already mounted onto discs 5C,4C,3C.
- 56 modules of the MPI share were built at Valencia using Hamamatsu wafers.
- Module production is finished, bonding will end this week, and the last MPI QA test will be done by the end of June 2005.

The production rate has been increased from 1-2 modules per week to 12/week.

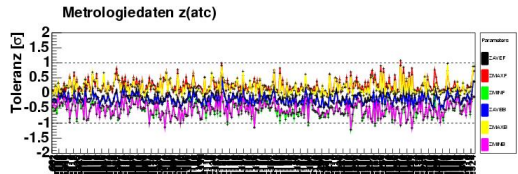
Mechanical precision of *long middle modules*



Parameters within the plane of the module



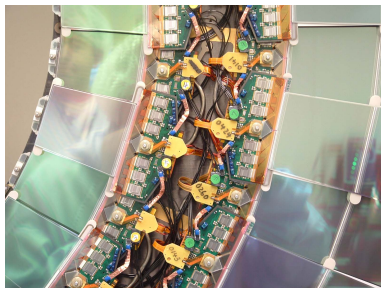
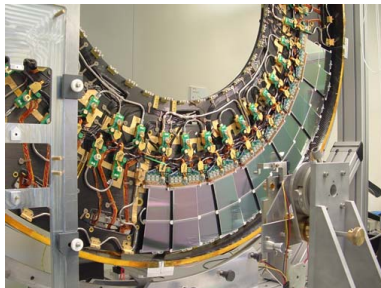
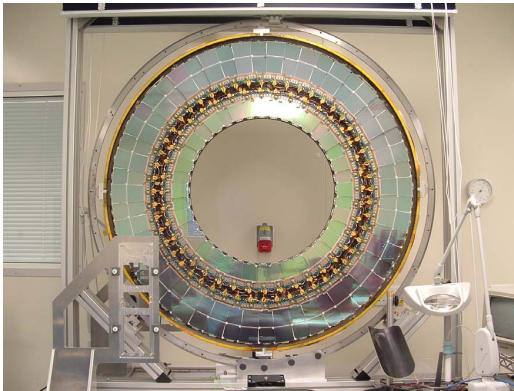
Parameters for the module thickness



→ As time goes by.

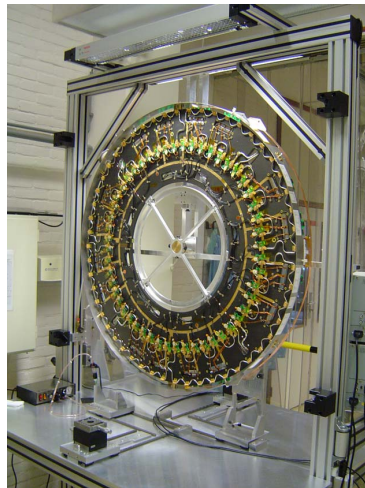
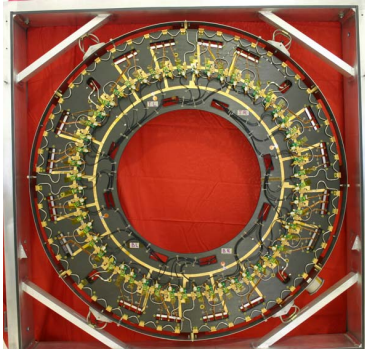
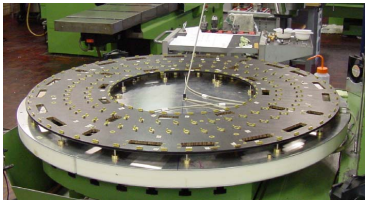
The tight specifications are met with high rate during the entire production.

The wrong side of a disc at Liverpool



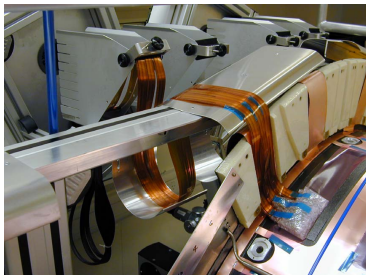
First disc with inner and outer modules.

The NIKHEF module to disc assembly



The first disc of endcap A is ready.

The LMT problem



The traces break and the tapes have to be remade.

Conclusions and Outlook

- The assembly phase is completed and bonding will be finished still this week.
- The last modules bonded at CERN will arrive tomorrow.
- QA of the last module will be completed end of June. We are mainly working on the final visual inspection of the finished modules and on repairs of modules on hold.
- Module to disc assembly is progressing but still critical, especially at NIKHEF.
- A replacement of the low mass tapes is needed and expensive, $\mathcal{O}(450)$ kCHF.
- We start to concentrate on other SCT issues like:
 - 1) The integration of SCT into the inner detector at CERN, where, at present, we contribute to the work on the rear thermal enclosure (J. Zimmer).
 - 2) The preparation of the alignment software for the inner detector, where the first results were already presented. (R. Härtel, T. Göttfert, S. Kluth, J. Schieck).

The MPI SCT end of production party is expected in July.