

PAL Commission Research on LL 9-Cell Cavity and Results

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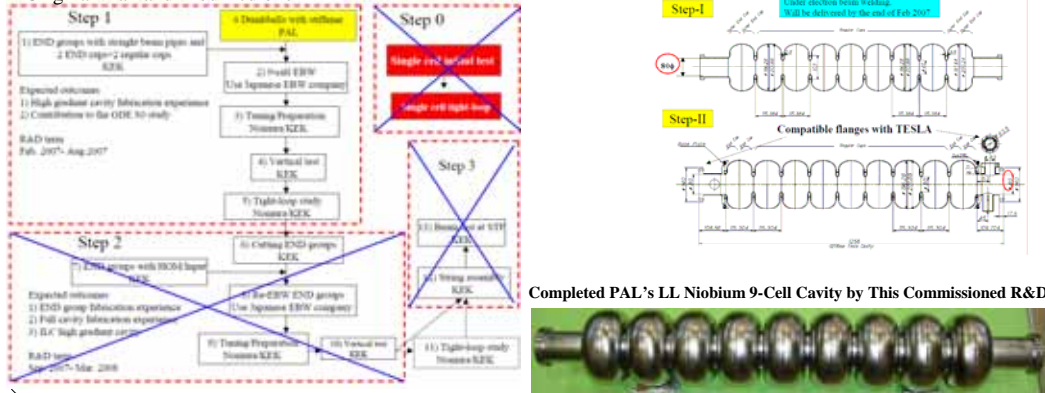
- 1) KEK Accelerator Lab
- 2) PAL: Pohang Accelerator Laboratory in Korea

Abstract

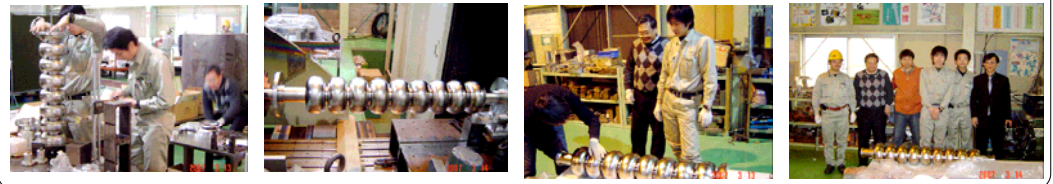
KEK has contracted a commission research from PAL on LL 9-cell cavity in 2007-2009. In this research program, we have fabricated a L-band 9-cell cavity with LL shape and made the S0 tight loop study. In this paper, the fabrication and the test result will be presented.

Commissioned R&D from PAL

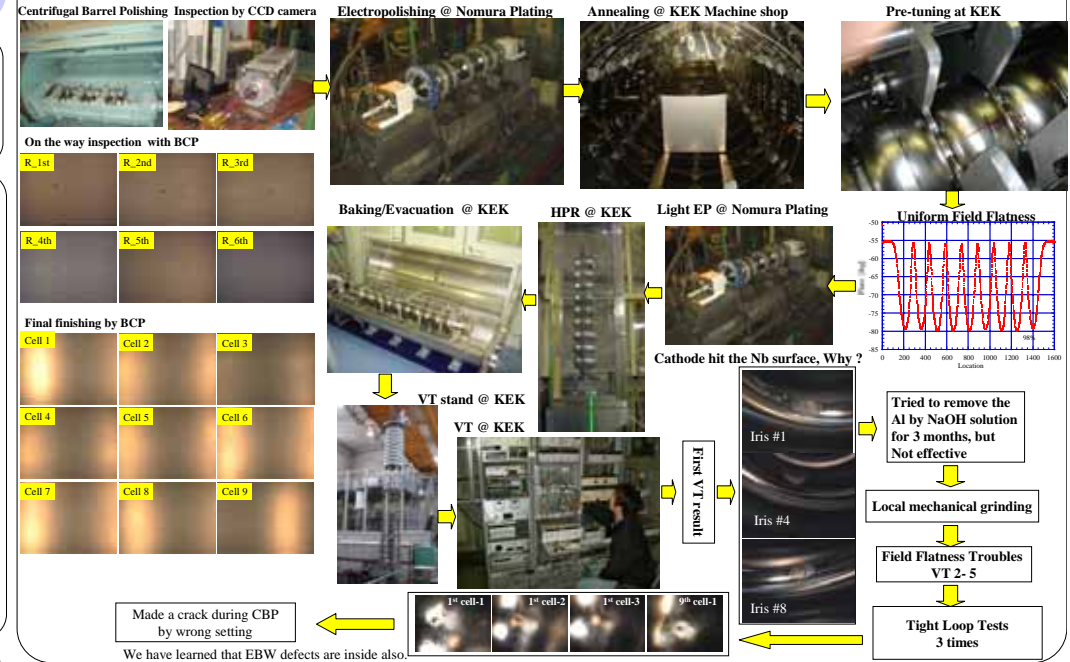
Original Plan and Modified one



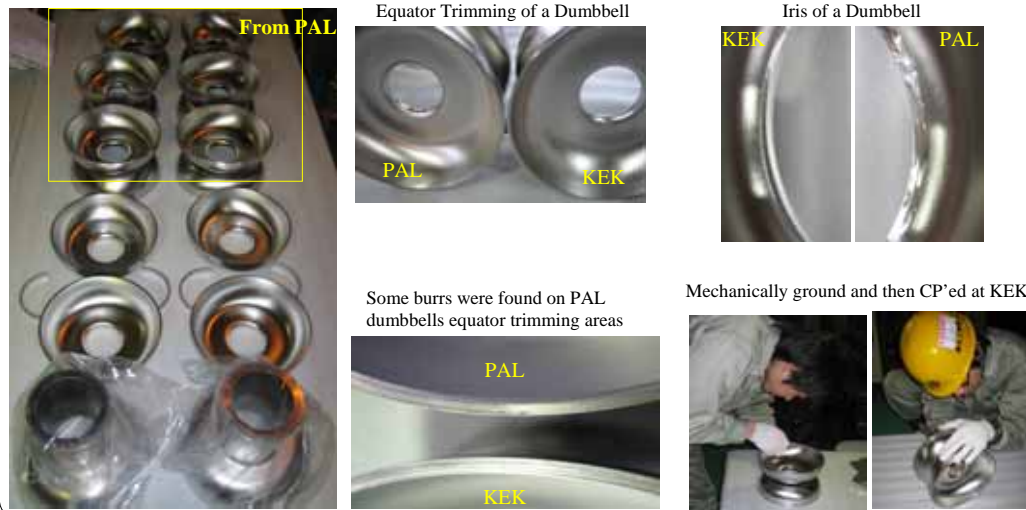
Dumbbell Assembly in Japanese EBW company (Kuroki Kogyo)



Preparations at KEK and History



Dumbbells from PAL and KEK's END Group fabrication



Summary

A LL 9-Cell niobium cavity was successfully fabricated and evaluated the performance by the commissioned R&D from PAL. The cavity gradient is 23MV/m in average. The best one is 26MV/m.

Vertical Test Results (guaranteed the FF >95% only)

