LARP Phase II Secondary Rotatable Collimator
5 min. Status Report
15th February, 2010
LARP

- First jaw bearings and supports finished and installed

300 1 mm Rhodium coated SS balls for image current

1001 mm ceramic balls for load support

First Jaw (RC-0)

Full jaw and bearings on support ready for CMM then installation
LARP

• CMM to give:
  1. Surface profile for each facet
     • confirm within 25 micron surface flatness
  2. Find axis of rotation and concentricity of each facet
  3. Gravity sag (Should be very small)

• Second jaw (RC-1):
  • Bearings being installed right now then goes to CMM
Trapped Modes Update

- Liling Xiao is finishing her studies of trapped modes with a more accurate model (Takes longer time to simulate)
Lowest Longitudinal Trapped Modes

Laping Xiao, Dec.14, 2009

- New design does appear to increase R/Q by about a factor of 30 (Q values remain roughly the same).
- In discussions with Elias Metral to determine if these magnitudes are acceptable for use in SPS or if we need mitigation methods
  - Use either
    - Redesigned transition regions or
    - Ferrite dampers

Narrow EM foils as well as large distance between EM foils cause more Ez fields existing in the end regions of the vacuum tank along the beam path.