

RICH upgrade status

Rome/Sanità Group

09 July 2007

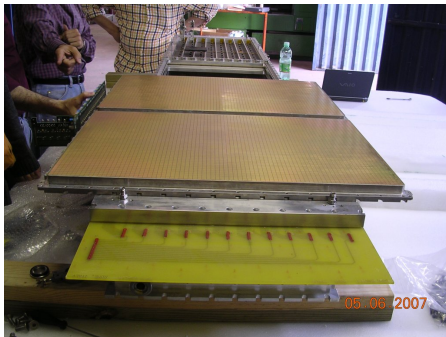
- Detailed drawing finalized with 5 pad panels
- Frames production started
- New frames delivery: 10/October/07

Old RICH survey in June

After survey we realized that:

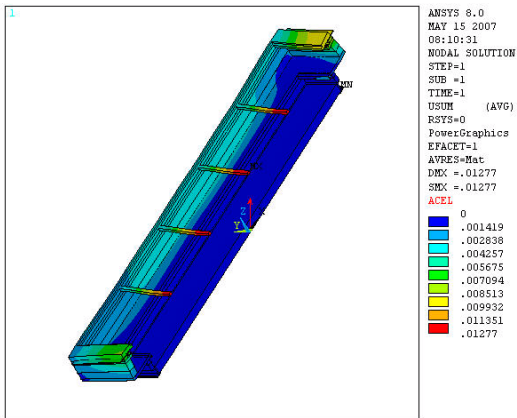
- RICH extra length (2×16 cm) due to HV boards (yellow in fig) can be reduced (to < 10 cm in total)
- we have enough space for one additional pad panel (20 cm)

Mechanical distortions and PID performance (next slides)



Final upgrade to 5 panels RICH

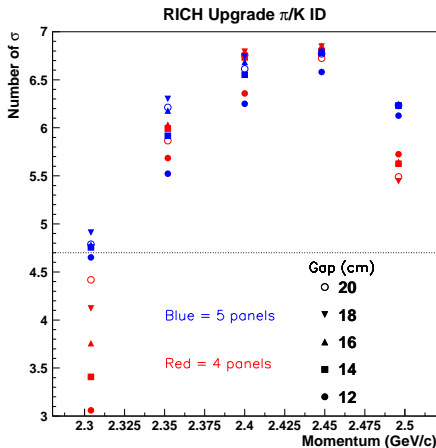
Mechanical FEM of 5 planes



Distorsion below 0.02 mm

(better than 4 panels due to the additional transverse bar)

Simulated performance of 5 planes final solution



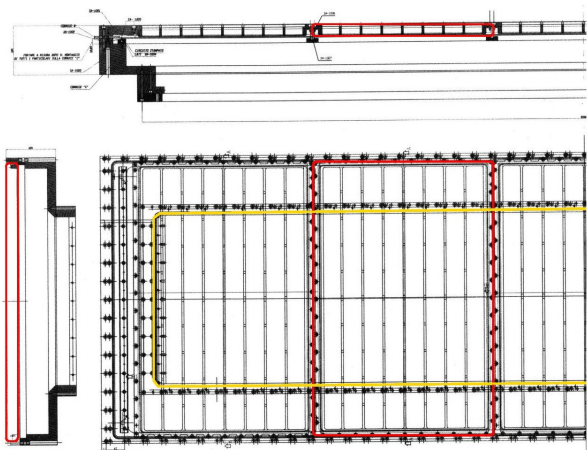
$< 1 : 1000$ $\pi:K$ in whole acceptance

(RICH position not optimized)

Final CAD of the RICH

Upgraded RICH projected size:

Dispersion dir.: 250 cm
Transverse dir.: 71 cm +
gas pipes and mechanical
supports (20 cm larger than
old RICH, some
optimization possible)
Longitudinal dir.: 43 cm +
Lemo 'L type' connector



← 1/2 of the RICH
Pad Panel
~ Radiator

Production started, new frames expected October the 10th