

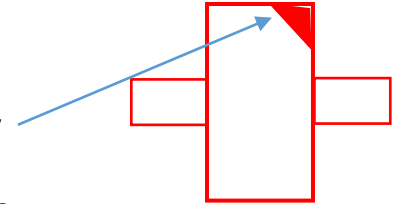
Buncher RF test plan

1. Fabrication
2. Commissioning
3. Beam operation

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1. Fabrication

- Order the machining of the cavity with overthickness on cavity diameter or just a corner
- Iterations between RF measurements and mechanical adjustments to get correct f and β
- After brazing; to correct the frequency by mechanical deformation or plunger



2. Commissioning

- Increase the RF power in the cavity by careful steps monitoring number of breakdowns up to P_{max}
- In case of difficulties, pulsed power and increase slowly the repetition rate

3. Beam operation

- Impossible to set up the correct phase, -90° / crest
- One possible way is to monitor the beamloading: if ϕ not correct \Rightarrow E decreases or increases
but fine adjustment will be done with a bunch length measurement after the booster