

Cryomodule-I Assembly Plans & Schedule

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(Updated by H. Carter 8/22/07)

Cavity String Assembly Phase-I

(Completed 7/27/07)

- GateValve1 + Cavity1 + Cavity2 + Cavity3 + Cavity4
- Dummy Quad +BPM+GateValve2
- CAF-MP9 Clean Room
- July 23 - July 27, 5 work days for assembly
- 2 DESY techs + 3 FNAL clean room techs
- Axel Matheisen, Tug Arkan

Cavity String Assembly Phase-II Plan

- Phase-I four cavities assembly + Cavity5 +Cavity6 +Cavity7 + Cavity 8
- Phase-II assembly + Phase-I Dummy Quad/BPM assembly
- CAF-MP9 Clean Room
- September 4 – September 7, 4 work days for assembly
- 2 DESY techs + 3 FNAL clean room techs
- Axel Matheisen, Tug Arkan

Cavity String Assembly Phase-II

Status

- Cavities 5 & 6 have been received, leak checked, externally cleaned, and placed on the rail system in the MP9 Class 10 clean room
- Shipping fixtures for cavities 7 & 8 were sent to DESY and have been received there
- Planned shipping date for cavities 7 & 8 not known at this time

Cold Mass Assembly Phase-I

- Roll the assembled string out of the clean room
- Assemble tuners, instrumentation, insulation, magnetic shields
- Weld 2-phase pipe bellows
- Prepare cavity string to be lifted up from the rail posts
- CAF-MP9 Cold Mass Assembly Area Manpower
 - September 17 – September 28, 10 work days for assembly
 - 2 DESY Techs + 4 FNAL techs + 2 FNAL clean room techs
 - Kay Jensch, Tug Arkan
 - FNAL support (Ruben's group)

Cold Mass Assembly Phase-II

- Transport Cold Mass from CAF-MP9 to CAF-ICB
- Prepare Cold Mass for Alignment
- Align Cold Mass / Test Alignment during transportation
- CAF-ICB Cold Mass Assembly Area
- October 8 – October 19, 10 work days for assembly
- 3 DESY techs + 4 FNAL techs + 2 FNAL clean room techs
- Kay Jensch, Tug Arkan + 2 INFN engineers
- FNAL support (Ruben's group, Alignment group (TD & FNAL))

Final Assembly

- Transport Cold Mass to Big Bertha Fixture
- Weld heat shields, lay insulation, insert cold mass into the vacuum vessel
- Install warm part of the couplers
- October 29 – November 9, 10 work days for assembly
- 1 DESY Tech + 4 FNAL techs + 2 FNAL clean room techs
- Kay Jensch, Tug Arkan
- Wolf-Dietrich Moeller, Denis Kostin + Dan Olis (couplers)

Summary Schedule

- String Assembly-I : 7/23 - 7/27
- String Assembly-II : 9/4 – 9/7
- Cold Mass Assembly-I : 9/17 – 9/28
- 1 week break
- Cold Mass Assembly-II : 10/8 – 10/19
- 1 week break
- Final Assembly : 10/29 – 11/9

Schedule Conflicts

- November 12: DESY CM #8 cold mass assembly starts at Hall 3, DESY (until the end of CY2007)
- 3.9GHz FNAL-DESY module is planned to be assembled between January 2008 – March 2008
- If we cannot assemble CM1 during the planned September – November time, we have to wait until April 2008 to start the assembly.
- We want to learn module assembly while working together with DESY colleagues. It will be safer to assemble 3.9GHz module after CM1 learning curve is completed.

CAF Tech Group

- Clean Room Assemblies:
 - Brian Smith, lead
 - Marco Battistoni (second lead)
 - Morgan Carter (transfer from AD---start date TBD)
- Cold Mass – Final Assemblies:
 - Glenn Smith, lead
 - Jeff Wittenkeller (second lead)
 - Mark Chlebek (cross trained to work in the clean room)
 - Gary Vezain