



Summary Status of Indian Contributions to CTF 3 Project*

*Presented by Purushottam Shrivastava On behalf of RRCAT Team

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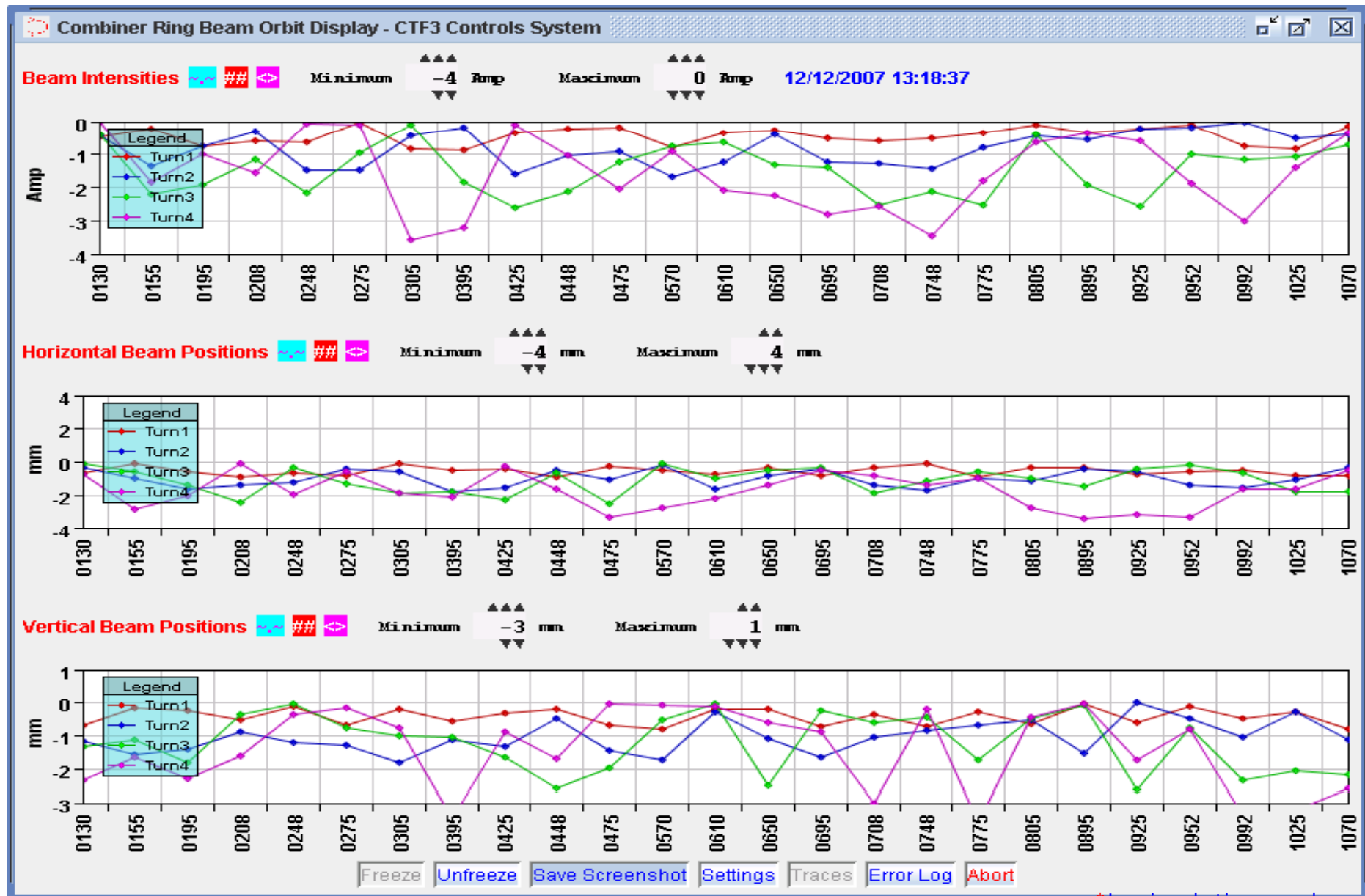
Addendum	Details of the contribution	Quantity	Status
CTF3/M.1	Expert support for commissioning of control systems for CTF3	5 Man months	Completed
CTF3/M.2	Expert support for commissioning and operation of control systems for CTF3	18 Man months	In progress
CTF3/B.1	Short and long dipole magnets for TL2	2 Long (30.75°), 3 Short(17.2°)	One short magnet shipped, two short magnets ready, long magnet cores ready
CTF3/V.1	Dipole vacuum chambers, straight vacuum chamber (Race track and circular profiles)	5 dipole, 31 Cylindrical, 22 Race track, 03 Cylindrical bent chambers	In progress
CTF3/T.1	Optics design studies, simulations, analysis and results of the transfer line TL 2 of CTF 3	18 Man months	Completed

Application software developed by Indian experts for CTF 3 controls (ADD CTF3/M.1)

- ❑ Magnet Degaussing
Automatically degausses the magnets.
- ❑ Combiner Ring Beam Orbit Display
Graphically displays the multi turn beam orbits in combiner ring.
- ❑ R. F. Pulse Shifter
Shifts the pulse delays of R. F. devices.
- ❑ Interlock Display
Displays the detailed interlocks' status of CTF3 Controls System.

B.S.K. Srivastava

Screenshot*: Combiner Ring Beam Orbit Display



STATUS OF FABRICATION OF CTF-3 VACUUM CHAMBERS

Sr	Description	Machining	Chemical Cleaning	Welding	Leak test	Ultimate vacuum test
01	Dipole chamber RT 53	Completed	Completed	Completed	Completed	Complete
02	Dipole chamber RT 63	Completed	Completed	Completed	Completed	Complete
03	Dipole chamber RT 16	Completed	Completed	Completed	Completed	Complete
04	Dipole chamber RT 43	Completed	Completed	Completed	Completed	In progress
05	Dipole chamber RT 73	Completed	Completed	Completed	Completed	
06	Cylindrical chambers (31 Nos.)	Completed	Completed	-----	Completed	8 nos. completed. Second lot in progress
07	Race track chambers(22 Nos.)	Completed	Completed	* 18 nos. Completed	18 nos. Completed	First lot assembly started.
08	Cylindrical bent chambers (03 Nos.)	work in progress		-----		



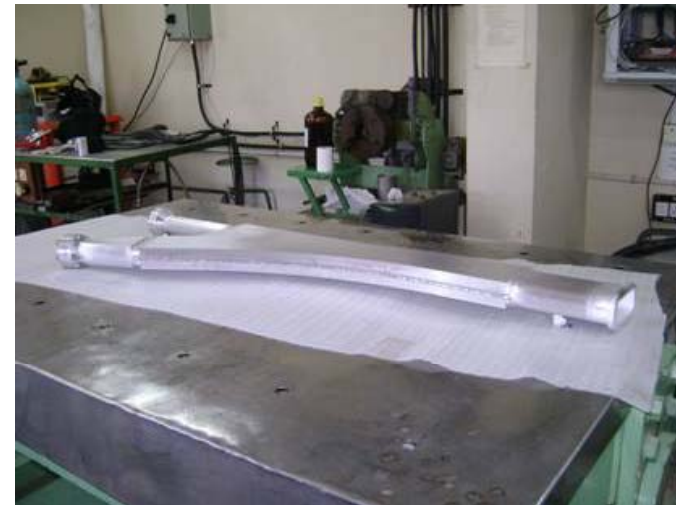
Circular chamber parts



Race track chamber parts



Assembly of vacuum chambers



Prototype Dipole vacuum chamber

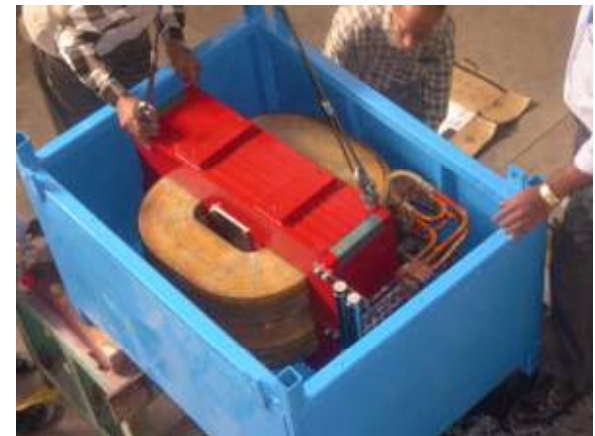
Dipole Magnet Fabrication Status as on 15th Jan 2008

Stages of Fabrication	S-1	S-2	S-3	L-1	L-2
Machining work 2 blocks	Complete	Completed	Complete	Complete	Complete
Assembly of Core	Complete	Completed	Complete	Complete	Complete
Coil winding 8 pan cakes	Complete	Complete	Complete	Complete	Winding Started
Coil Potting 4 double pan cakes	Complete	Complete	Complete	Complete	
Magnet Assembly work	Completed dt 29 Nov 07	Completed on 4 th Jan 2008	Completed on 11 th Jan 2008		
Magnetic measurements	Complete				
Painting work	Complete	Complete except finish coat	Complete except finish coat	Complete except finish coat	Complete except finish coat
Packing in Box	Completed 18 th Dec 07(shipped)				



Dipole magnet core fabrication and assembly

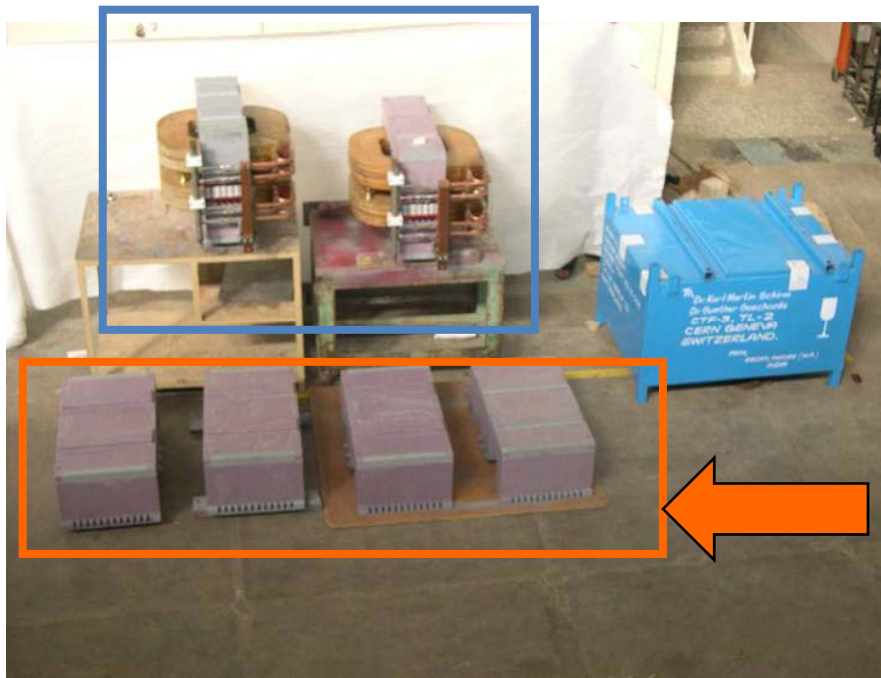
Dipole magnet complete



Stages of fabrication and packing for shipment for first dipole magnet at RRCAT

CTF3 Coll meeting 22 Jan 08 Purushottam
Shrivastava

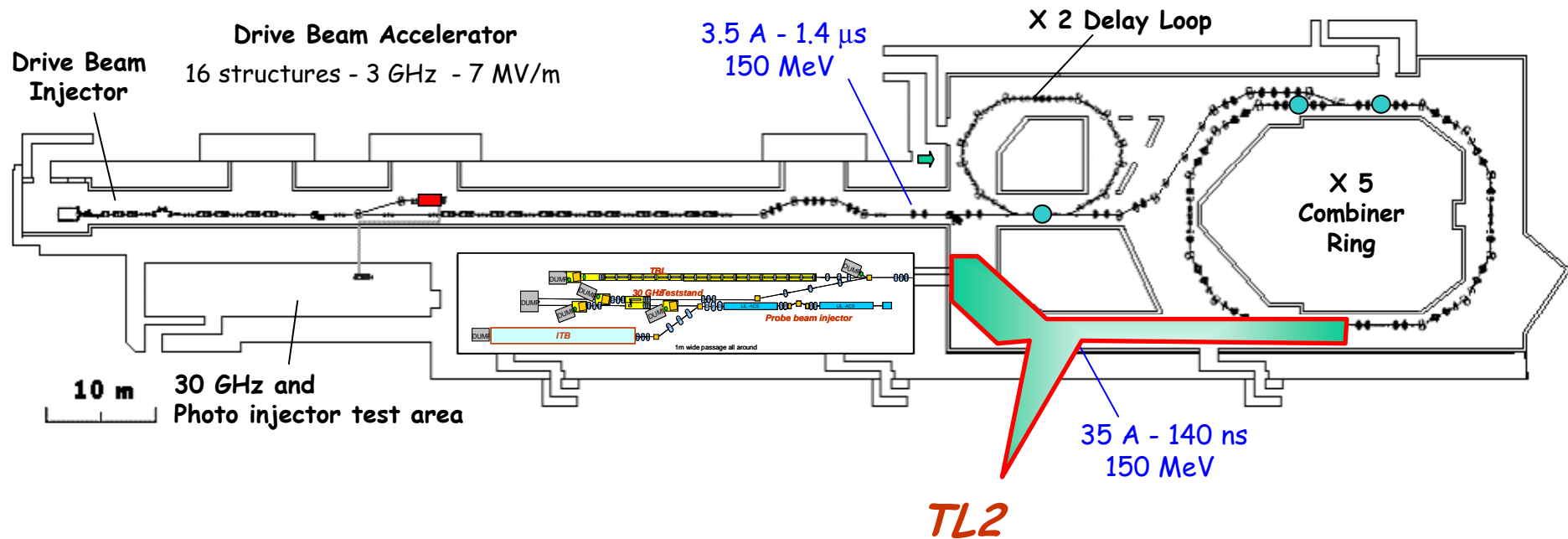
Short dipole magnets



Long dipole magnets

ing 22 Jan 08 Purushottam Shrivastava

Layout of CLIC TEST FACILITY3 (CTF3) at CERN
*RRCAT is contributing in the Optics Design & Fabrication dipole magnets
and vacuum chambers of TL2 for CTF3.*



Following two talks will give details of these contributions

Amalendu Sharma : TL2 Optics Design

S.S. Prabhu : Dipole Magnets and Vacuum Chambers for TL2

Thank you.