

# Two-beam Test-stand and other Uppsala Activities

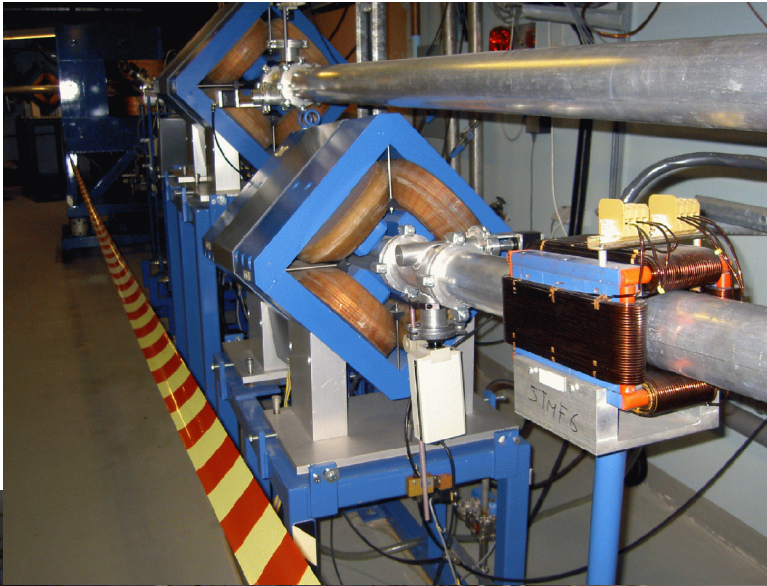
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- History
- Celsius magnets for CTF3
- Two-beam Test stand
- Shopping list and budget
- Timeline

# History

- Long participation in beam diagnostic issues.
- In 2004 we applied for funds to build beam line between combiner-ring and Two-beam test-stand.
- Unsuccessful, but we tried to contribute anyway.
- CELSIUS (beam-line) magnets for CTF3.
  - 16 quadrupoles, 3 bends, 5 steerers
- 2005, New application to Swedish science council
  - 9 November: 6.3 MSeK (1 MCHF) granted for 4x2 py.
  - 9.1 MSeK (1.5 MCHF) in associated hardware from Wallenberg foundation applied for.

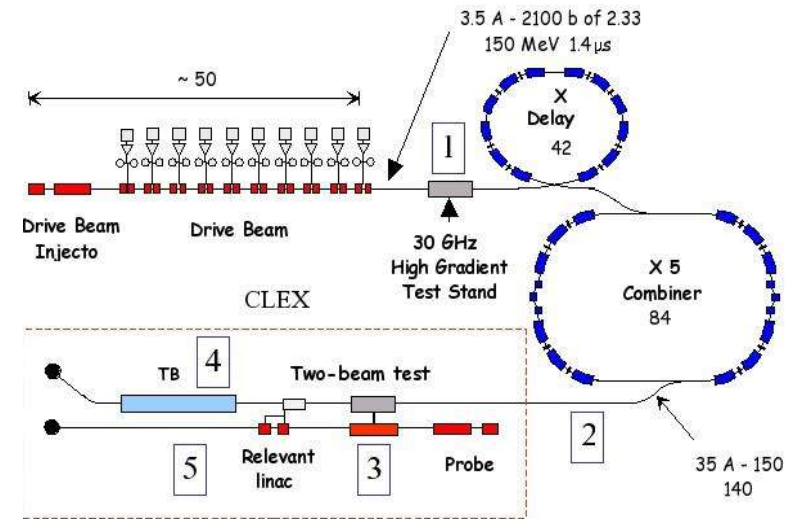
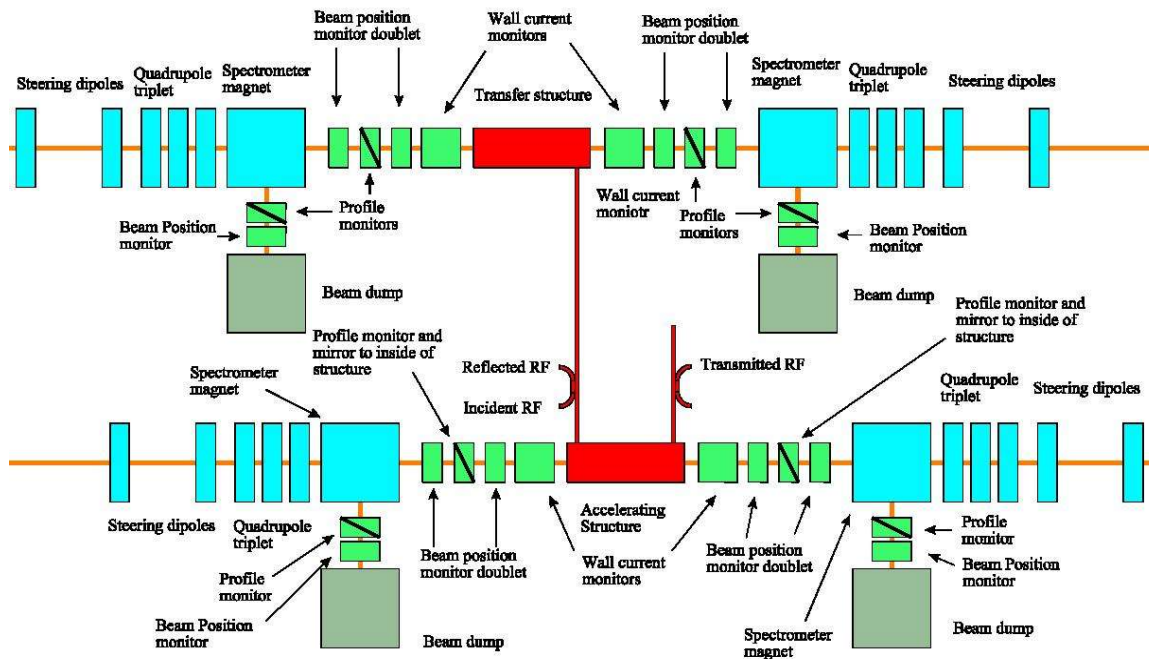
# CELSIUS magnets for CTF3





# Two-beam Test-stand

- Central part of CLEX: diagnose and analyze the power transfer from PETS to accelerating structures.



# What to do with it

- (Analysis of the RF signals from PETS to accelerating structure, CERN)
- Analysis of the drive- and probe-beam
  - under normal conditions
  - under RF breakdown (transverse kicks, energy)
- Monitor as much as possible during RF- breakdown
  - Vacuum
  - Temperature
  - Light
  - Mechanical shocks

# Shopping list

- Magnets after test stand: 2x3 quads+ps, 2 dipoles, 1 steerer, beam pipe
- Beam diagnostic:
  - Beam size: 1+1 OTR, 1+1 segmented beam dump
  - Beam position: 2+2 BPM
  - Current: 2+1 Faraday cup, 1+0 wall current monitors
  - Synchrotron light: 1+1 ports, 1 optical beam line
- Vacuum:
  - 4 turbo pumps
  - 6 gauges
  - 2+2 sector valves
- Waterflow, Temperature sensors, Accelerometers, Photomultipliers

# Timeline, fill in tomorrow

	2006				2007				2008				2009			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Quadrupoles</b>																
Specify																
Order																
Install																
Commission																
<b>Spectrometer dipoles</b>																
Specify																
Order																
Install																
Commission																
<b>Steering dipoles</b>																
Specify																
Order																
Install																
Commission																
<b>OTR screen</b>																
Specify																
Order																
Install																
Commission																
<b>Beam position monitors</b>																
Specify																
Order																
Install																
Commission																
<b>Segmented beam dumps</b>																
Specify																
Order																
Install																
Commission																

# Conclusion

We're looking forward to a  
successful collaboration.