



UPPSALA
UNIVERSITET



Two-beam Test-stand Design and Construction Status

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TIC

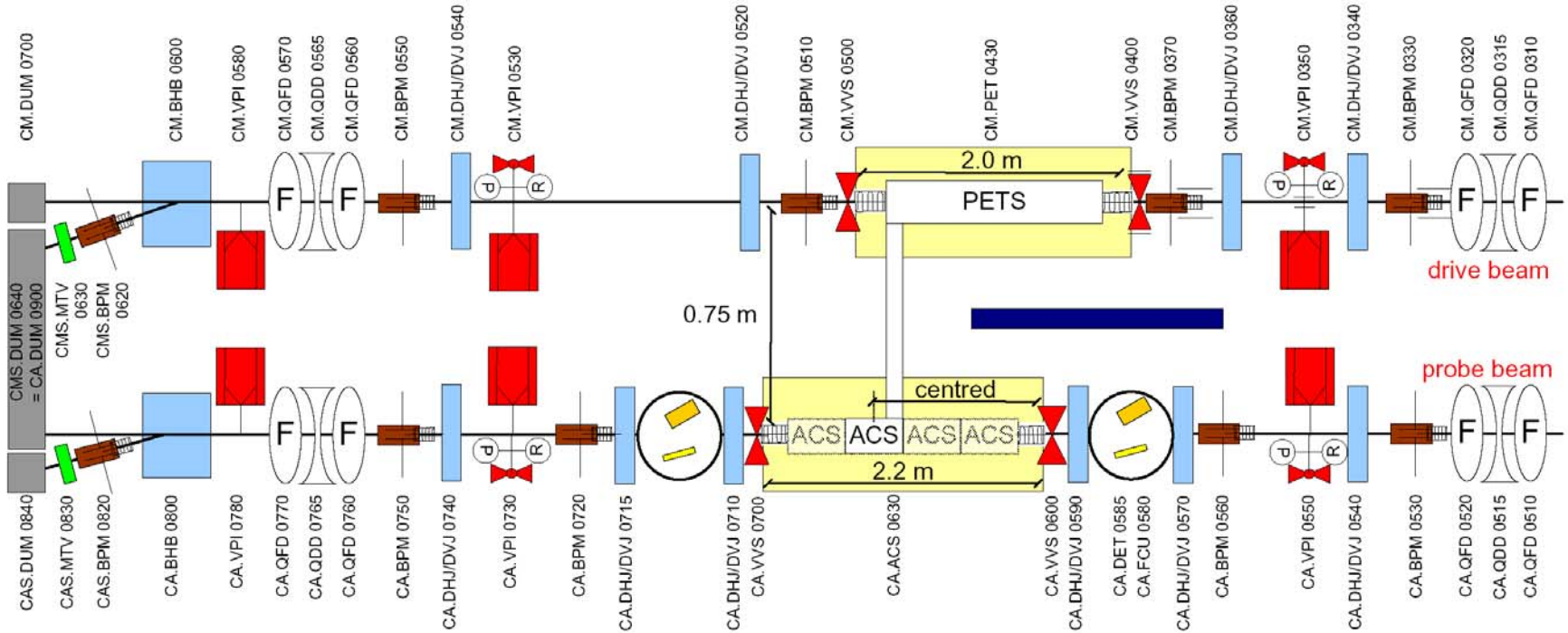
19 September 2007



CERN EDMS Id. 822318
RR-2007/09/17

17 m

CTF3 Two-beam Test-Stand
Layout



10x

corrector
dipole
(HVC)

10x

BPM



bellows



pumping port
w/ valve (DN63 CF)

2x

spectrometer
dipole
(MDX)

2x

MTV
(OTR screen)



gate valve
(DN40 CF)



shielded pumping
port w/ valve (DN63 CF)



4x3
quadrupole
triplet
(QL3)

Faraday cup



shielded
gate valve



Pirani gauge
(DN16 CF)

position
sensitive
detector



beam dump



Penning gauge
(DN40 CF)



radiation screen
(lead blocks)



ion pump
(DN100 CF)

PETS Power Extraction and
Transfer Structure

ACS Accelerating Structure



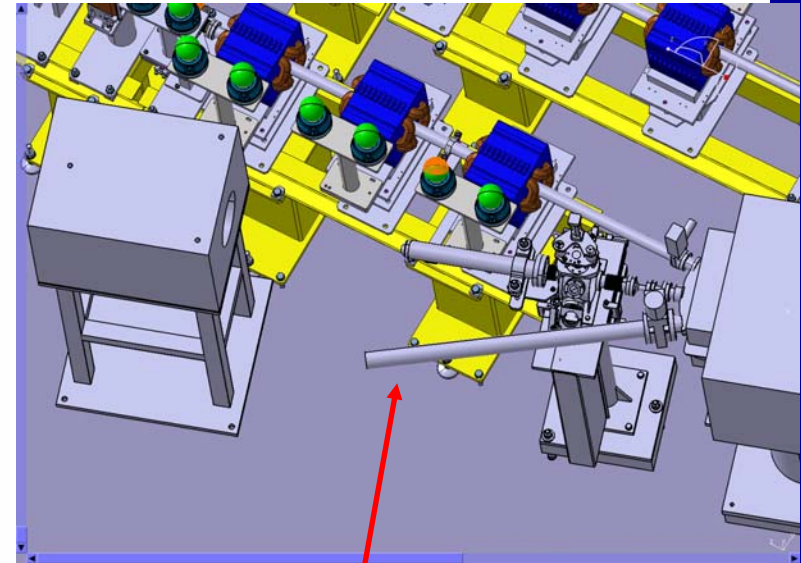
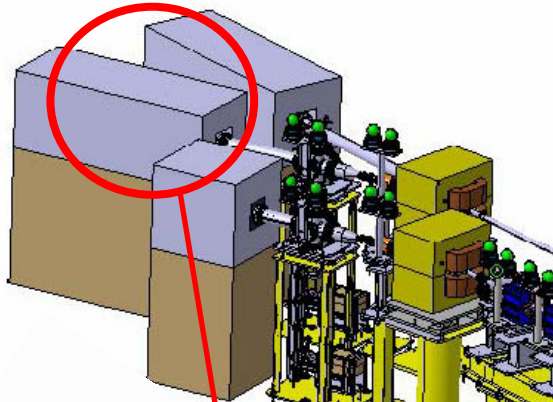
- **supports**
 - girders → October
 - alignment tables → October
- **magnets**
 - quadrupoles (QL3) → delivery & test ongoing
 - spectrometer dipoles → existing
 - orbit correctors → December
- **instrumentation**
 - BPM → parts finished, integration October
 - OTR → design finished, delivery December
- **vacuum**
 - valves & electronics → delivered
 - RF shielded valve → order under discussion
 - ion pumps → existing
 - pumping pots → SUS: October, Aluminium under discussion
 - vacuum chambers → dipole: November, others: production drawings



- **PETS & ACS tables**
 - ACS table extended to 2.2 m from 1.5 m
 - ACS centered & RF inlet aligned to PETS waveguide outlet
- **interface to CALIFES**
 - CALIFES beam dump moved down stream
 - TBTS probe beam moved 1 m towards CALIFES
- **beam dumps**
 - combined probe & drive beam dump to save space
 - TBTS moved upstream to free 2 m b/w TBTS and CLEX wall

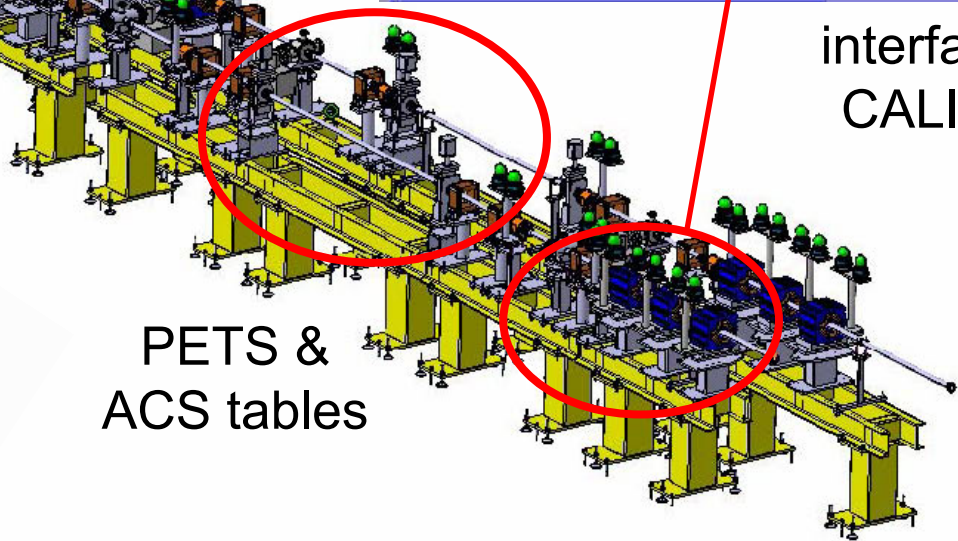


combined
dump



interface to
CALIFES

PETS &
ACS tables





- Design work finished,
working on installation drawings
- All main parts ordered,
remaining vacuum chambers in coming weeks
- Installation work starting October

Thanks to the excellent help of Bruno, Nicolas, the CTF3 team and the CERN & Uppsala workshops.