
Overview of BLM installation drawings

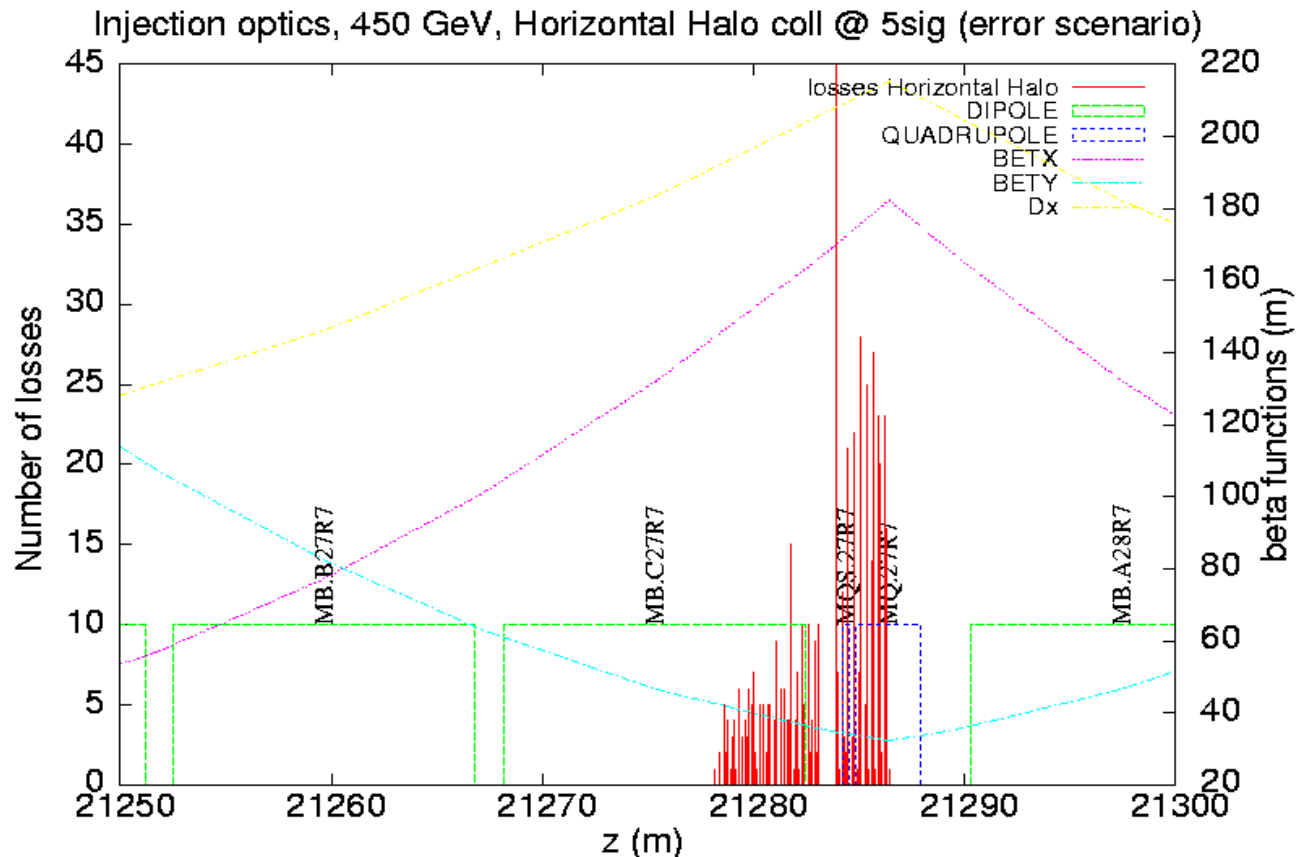
Laurette Ponce (AB/OP)

1. ARCS : short recall
2. DS IR7
3. LSS 8

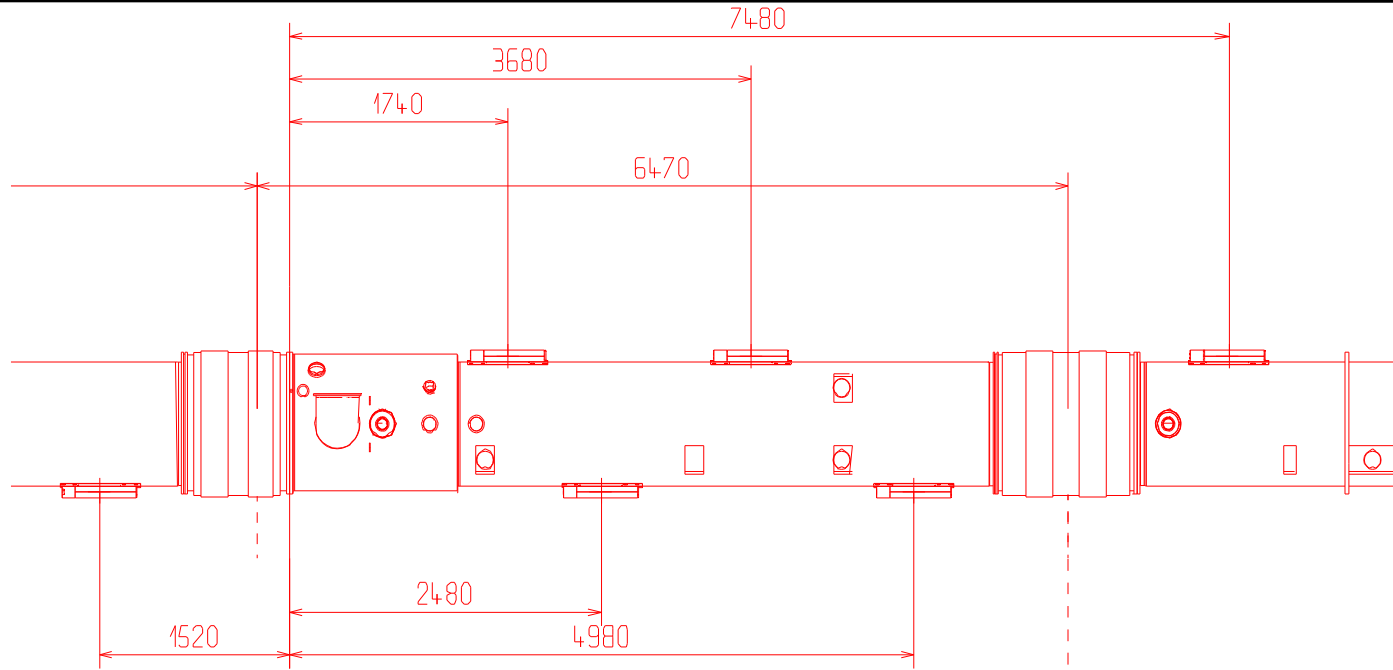
1. Position in the ARCS (Reminder)

- Peak before MQ at the shrinking vacuum pipe location (aperture limit effect)
- End of loss at the centre of the MQ (beam size effect)

(MQ27.R7)



Position after integration



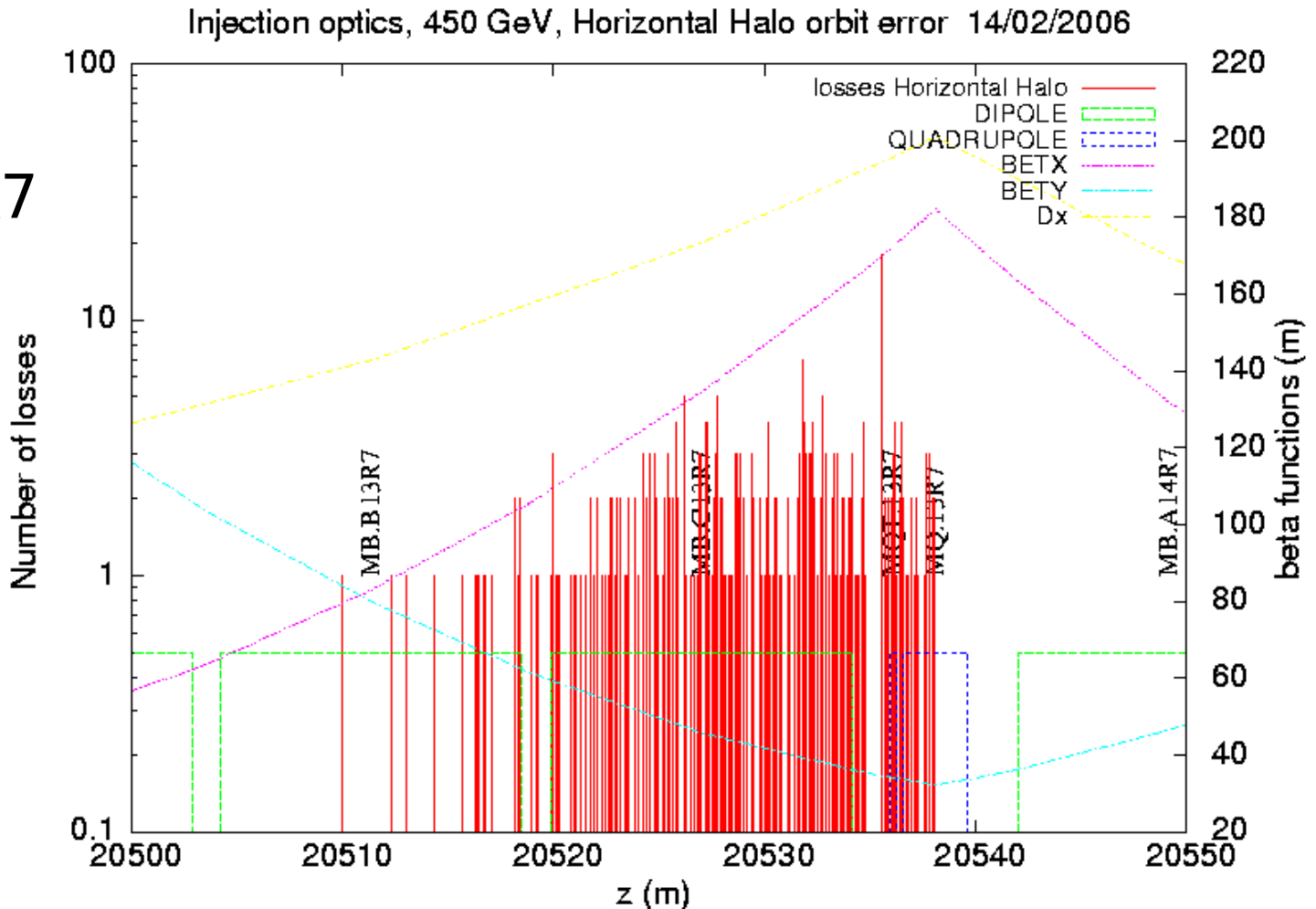
Top view of SSS cryostat

→ Same configuration for all the quads in the machine

Special configurations ?

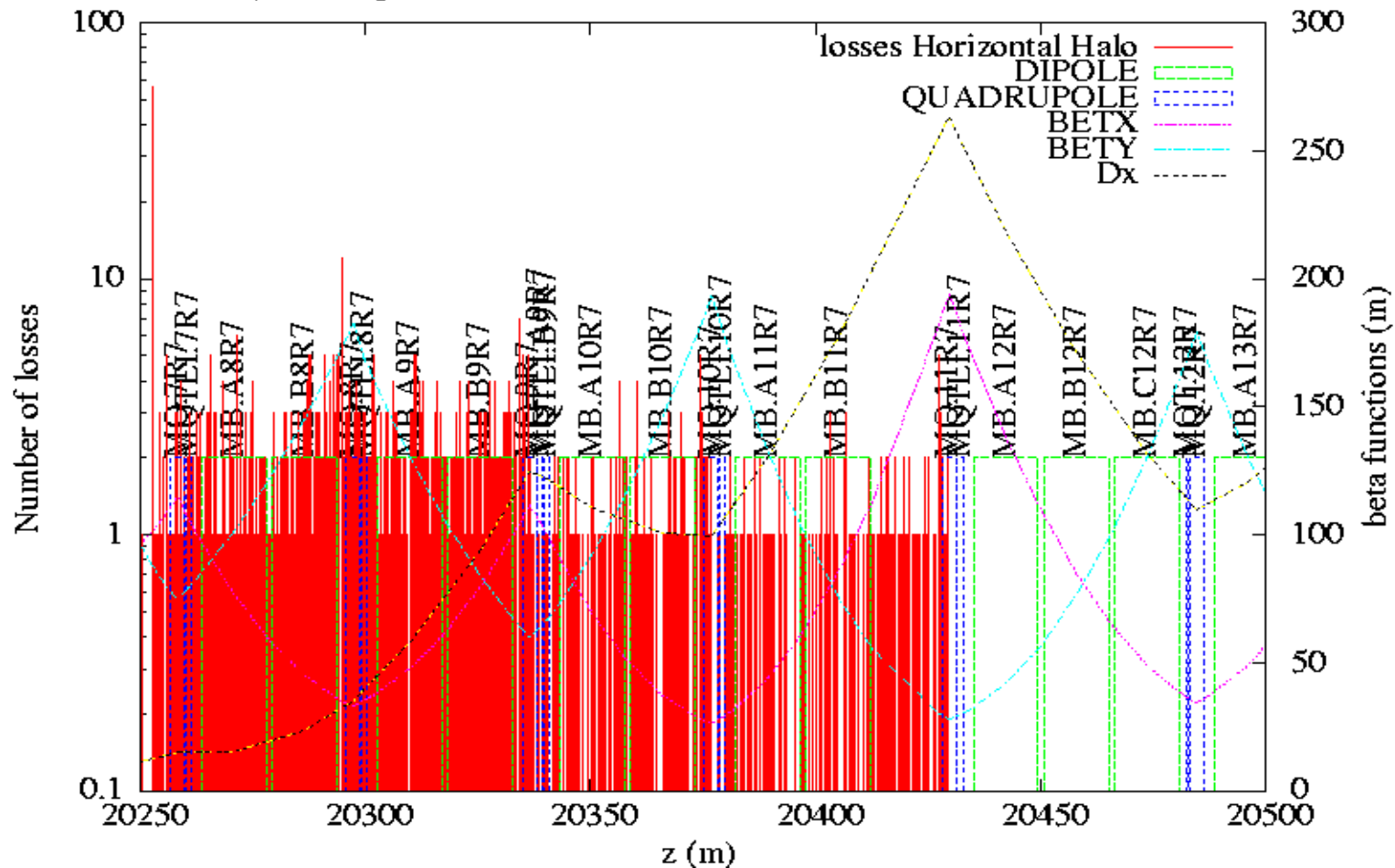
- loss will be “seen” by the BLMs on the quad

MBB.13R7



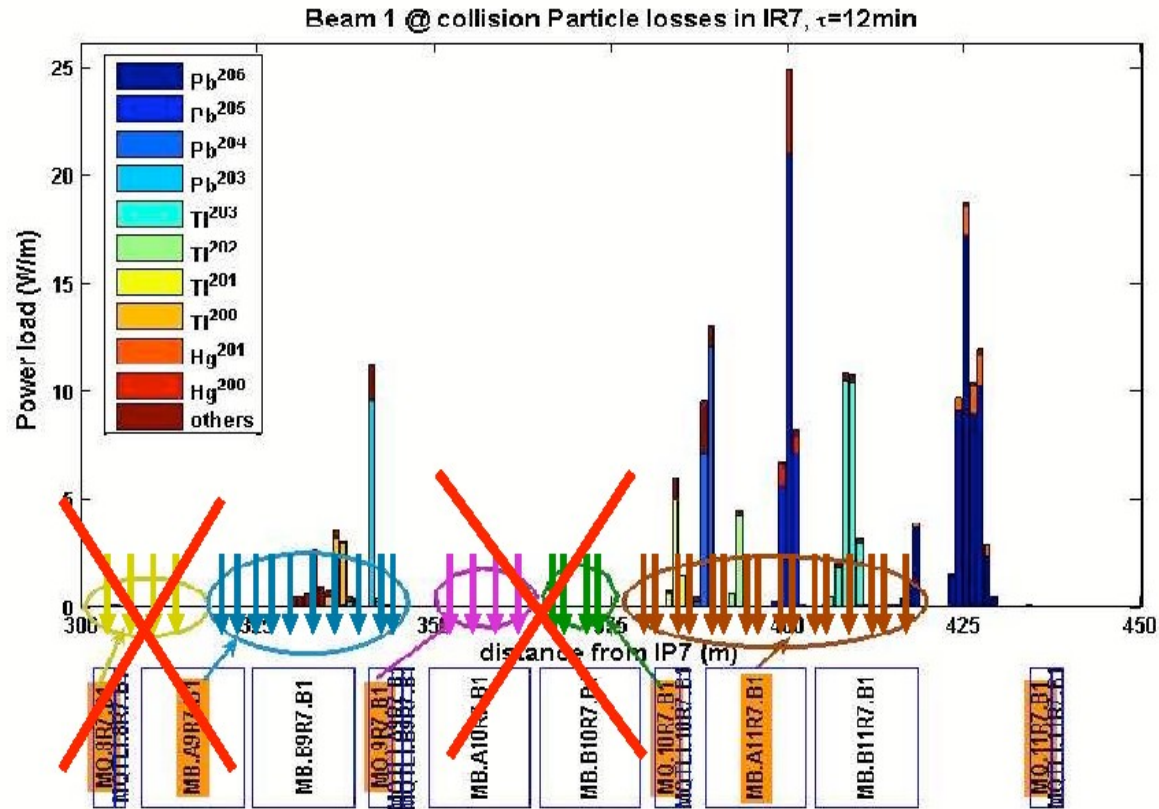
2. Dispersion Suppressor IR7

Injection optics, 450 GeV, Horizontal Halo coll @ 5sig 01/02/2006



- peak before the MQs and losses all along the magnets

Requested positions for ions

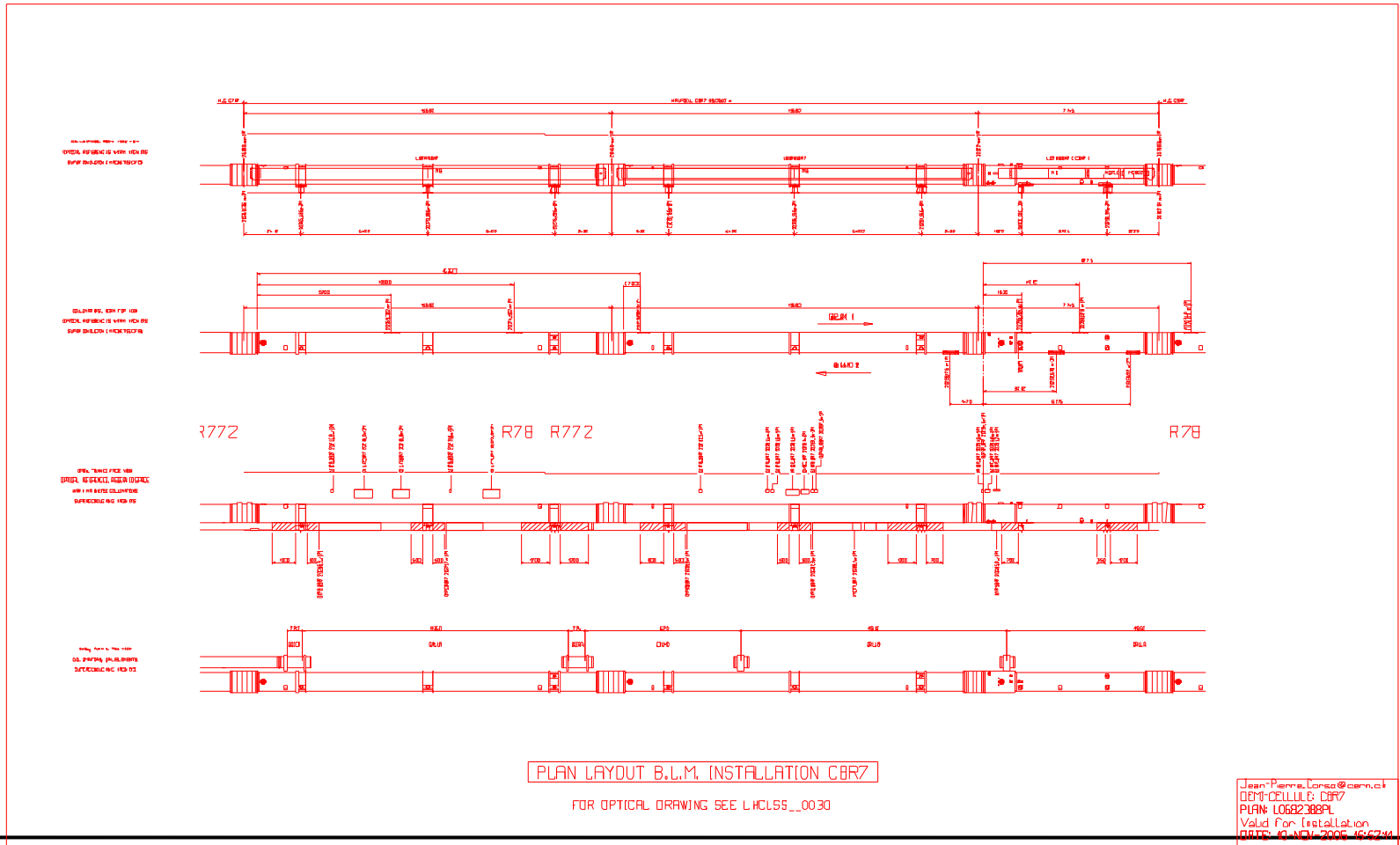


- DS IR7: additional monitors in cells 9, 10 & 11
- arc region: cell 13 & 19 left

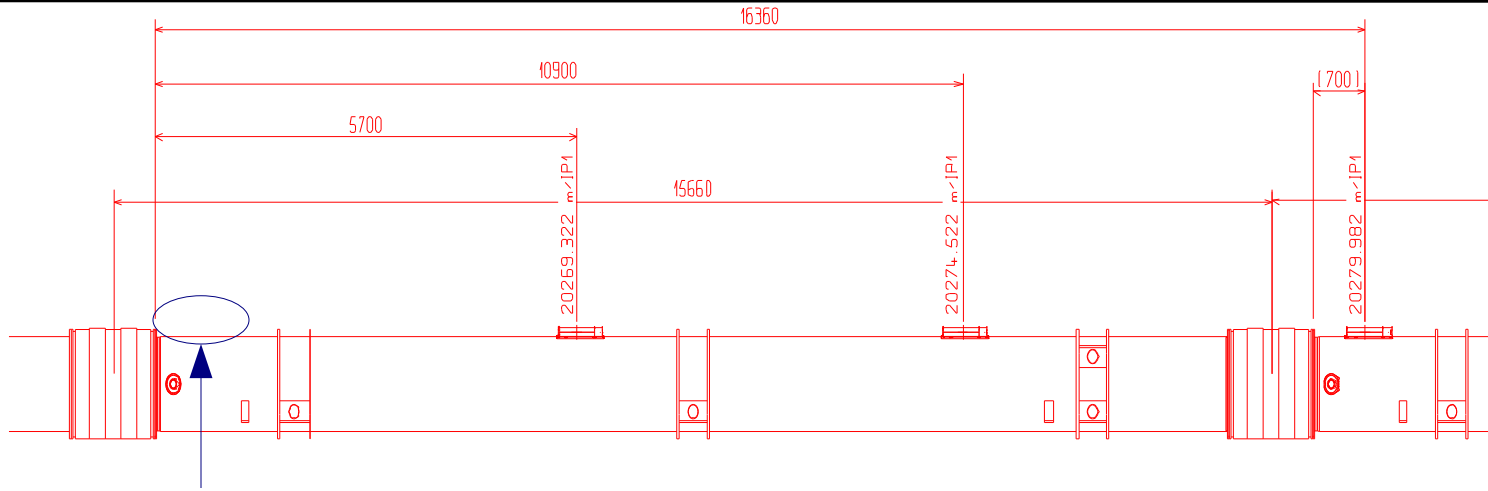
Proposed installation

Please have a look to the integration web site :

https://lhc-div-miwg.web.cern.ch/lhc-div-miwg/Plans_BLM/S78/Table_S78.htm



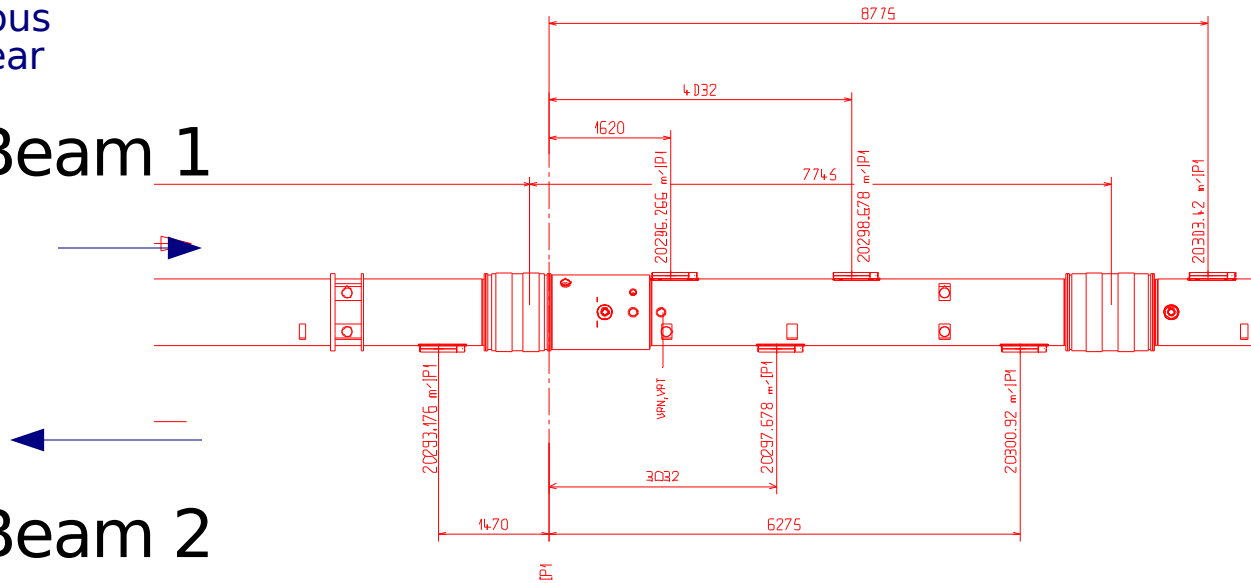
C8.R7 (top view)



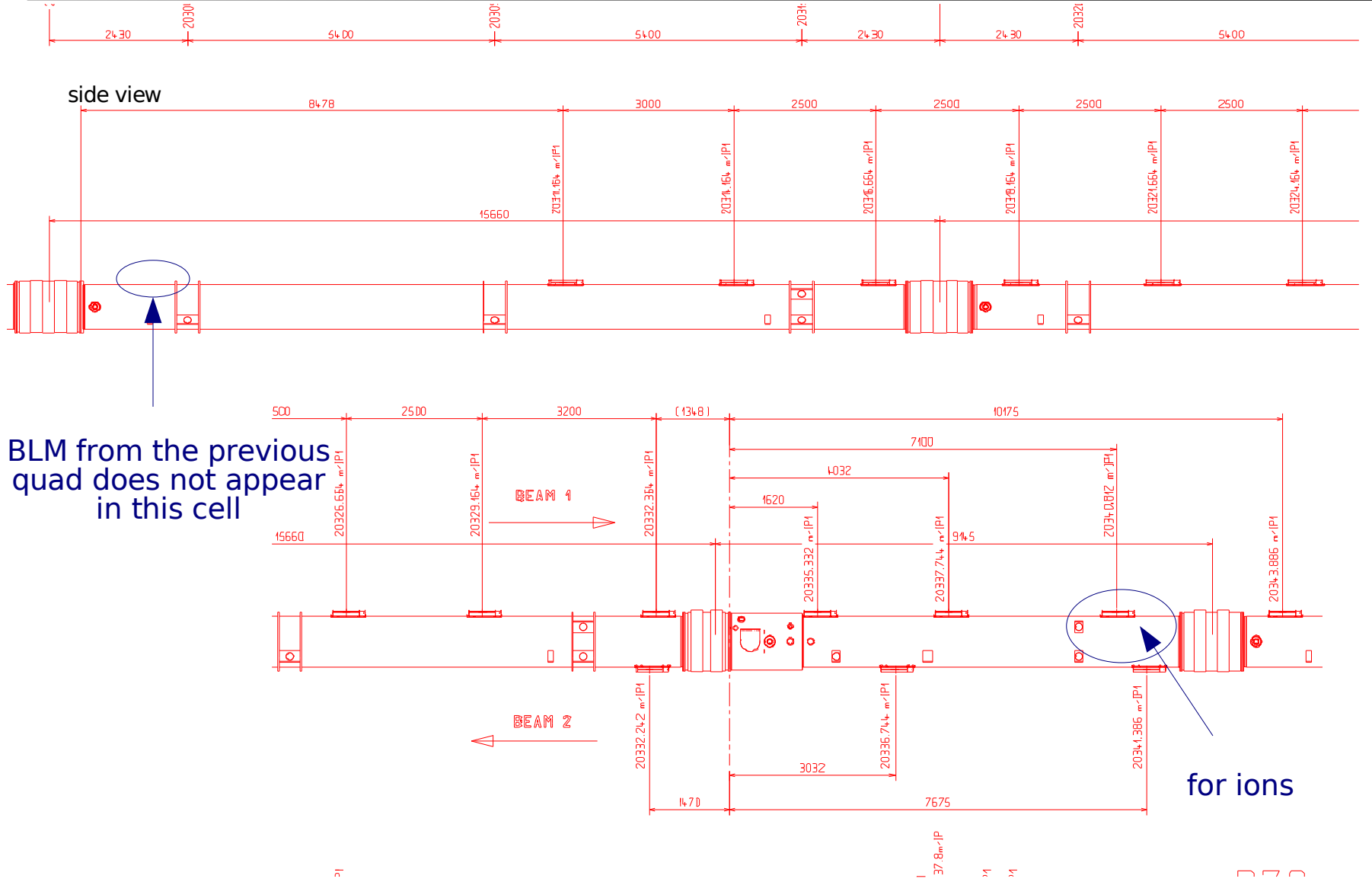
BLM from the previous quad does not appear in this cell

Beam 1

Beam 2



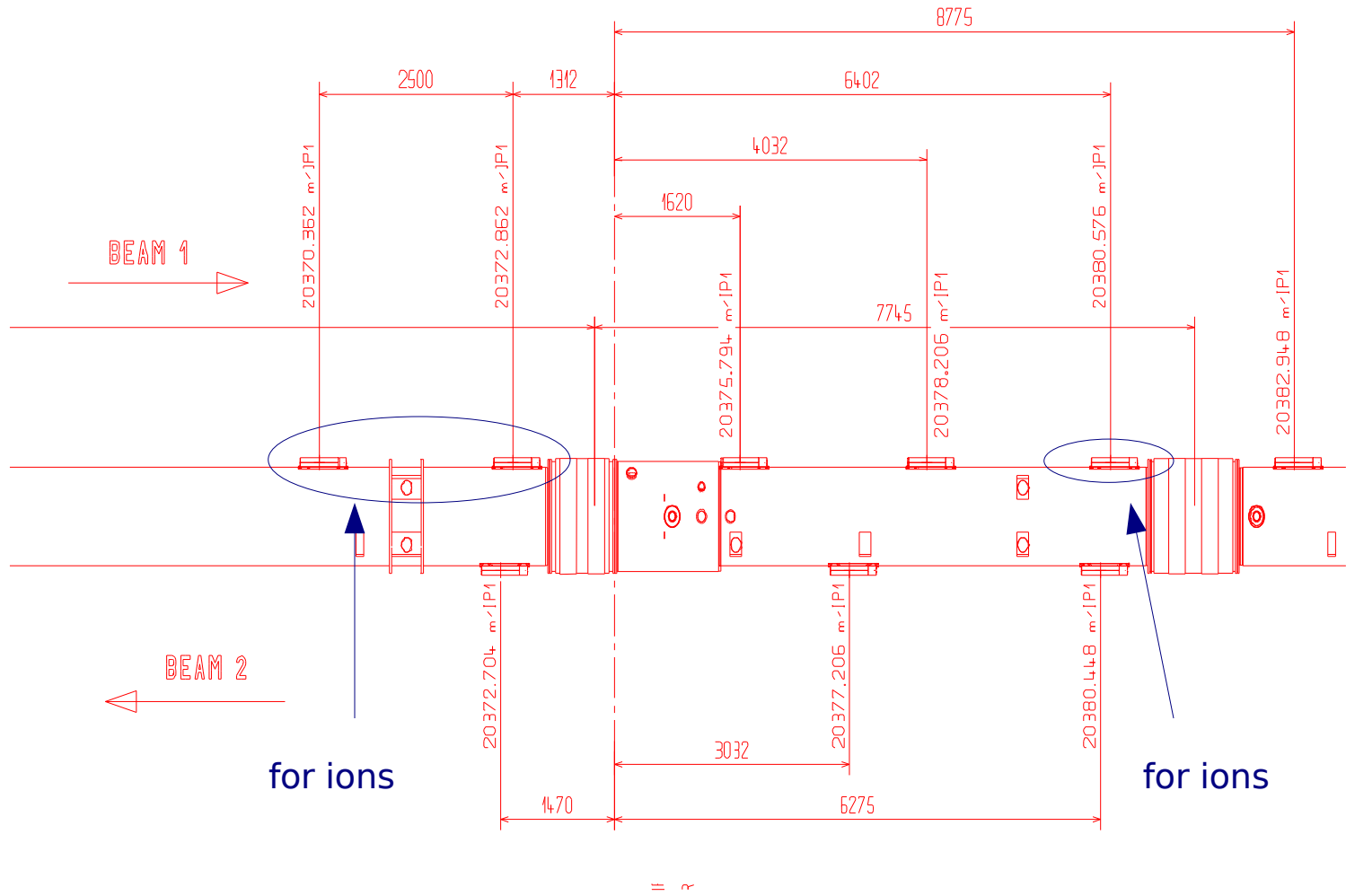
C9.R7



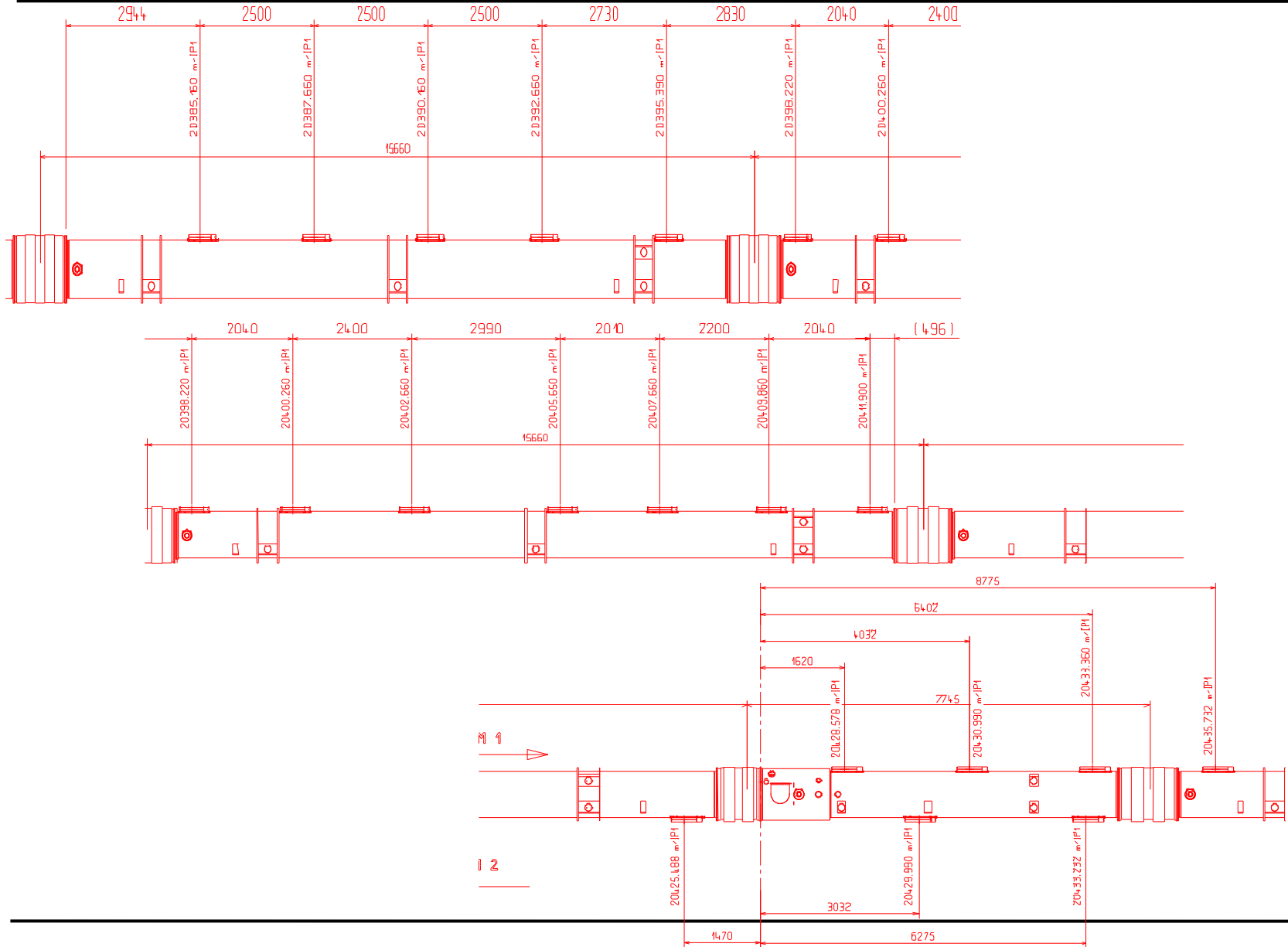
BLM from the previous quad does not appear in this cell

for ions

C10.R7

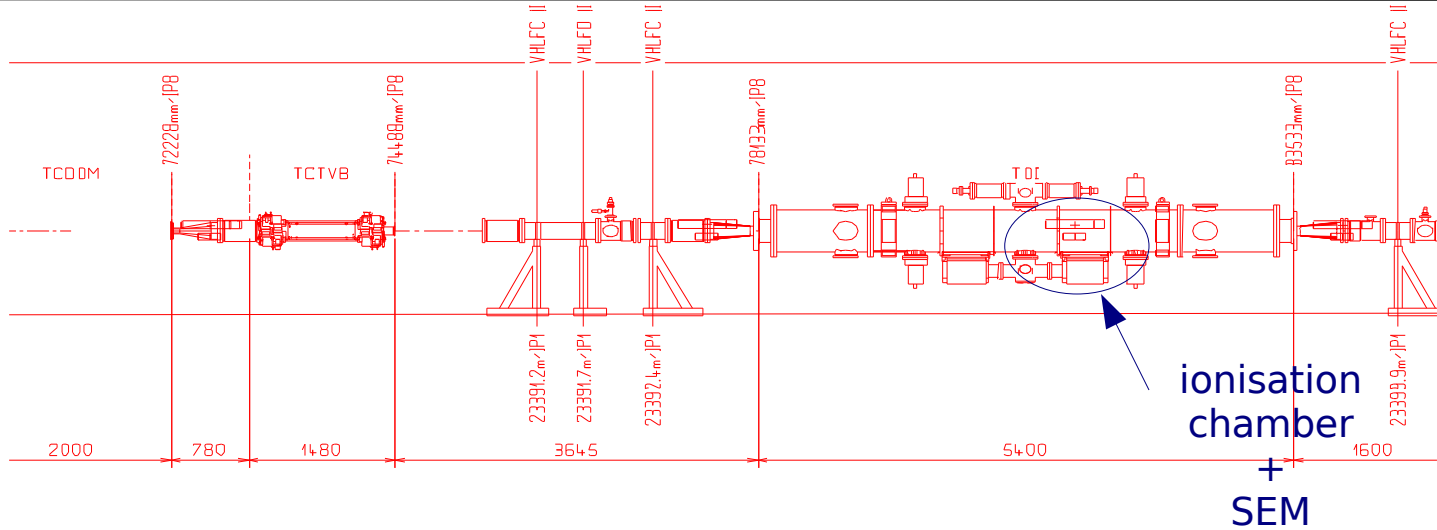


C11.R7



3. LSS 8 : example of TDI+TCT

side view

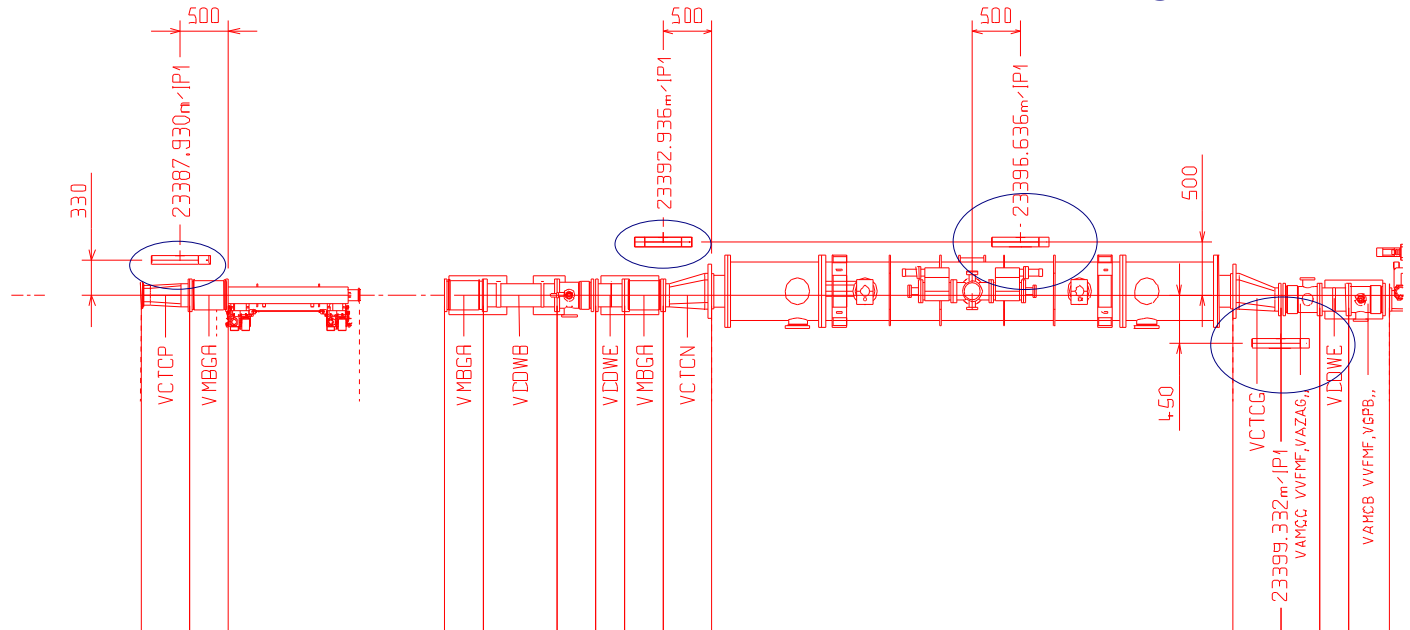


top view

beam 2



beam 1



Conclusions

- need approval of the drawings : installation of DS started last week!
- need the thresholds for the so-called “ions BLMs”
- need more inputs (beta functions, loss maps,...) to optimize the integration on the stand-alone quadrupole vs. the standard positions (center of the total length of the main cold masses)