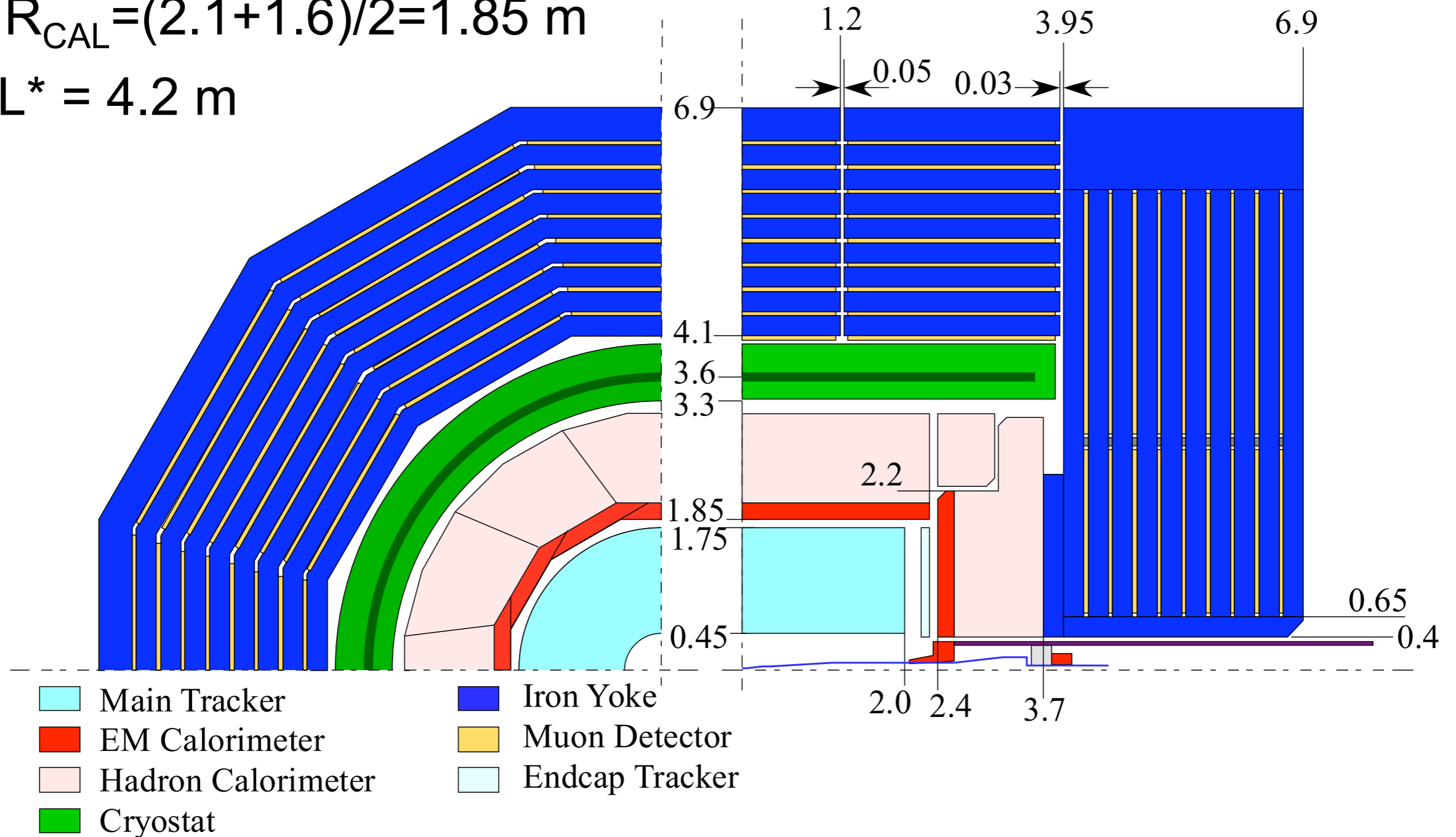


Compact GLD - GLDc

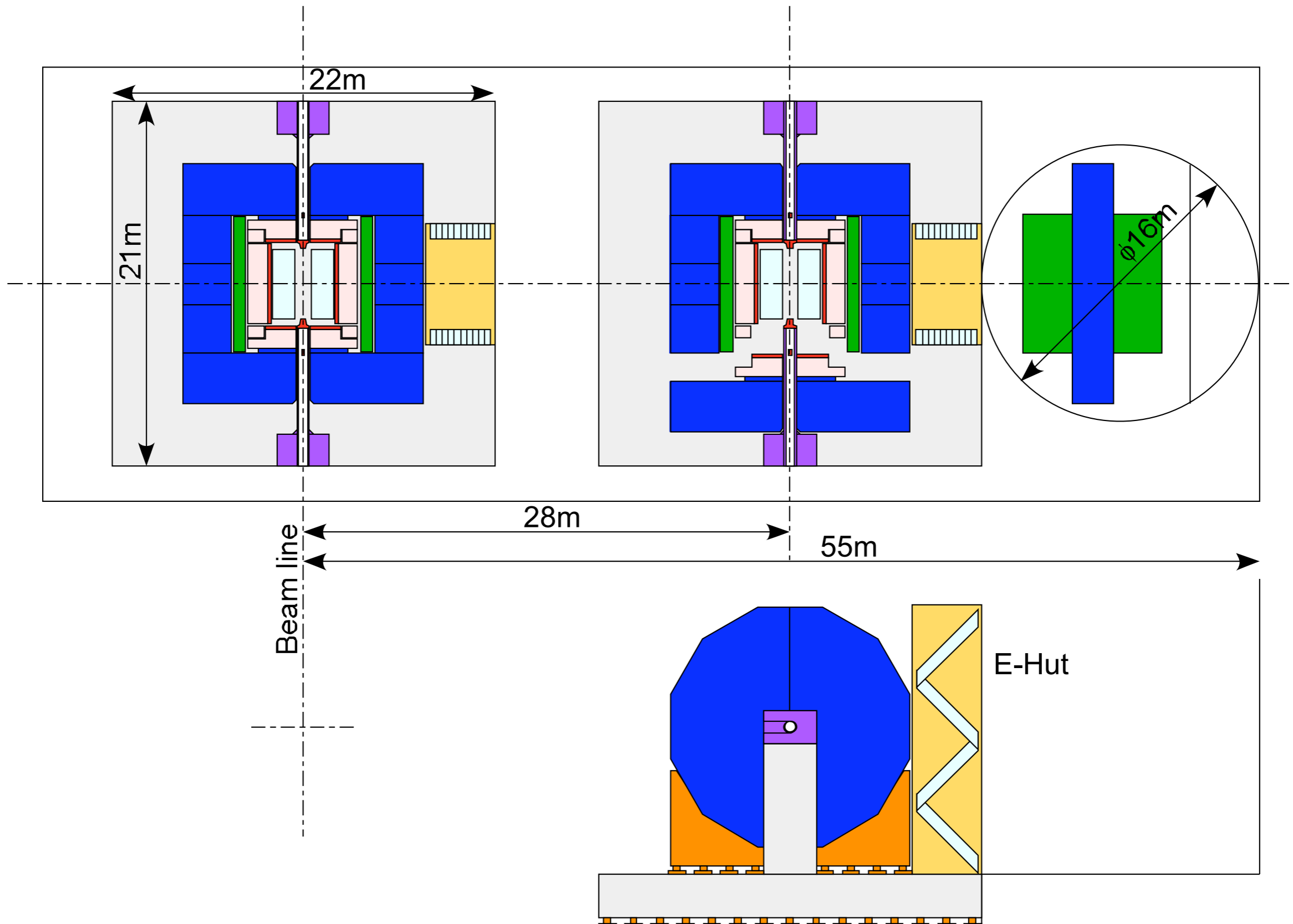
$$B = (3+4)/2 = 3.5 \text{ T}$$

$$R_{\text{CAL}} = (2.1+1.6)/2 = 1.85 \text{ m}$$

$$L^* = 4.2 \text{ m}$$



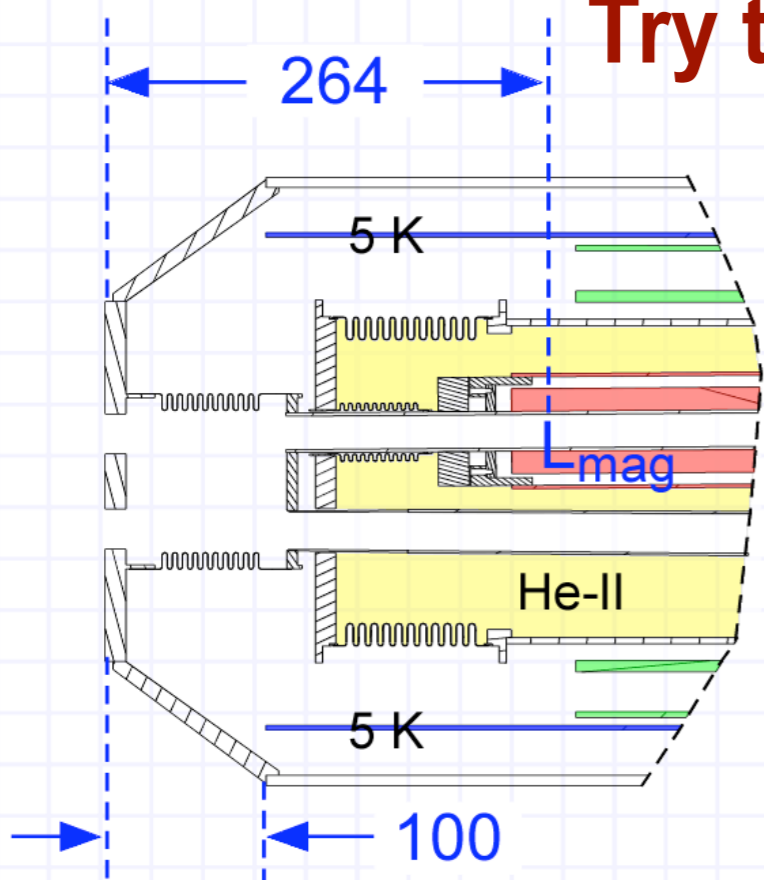
Exp hall



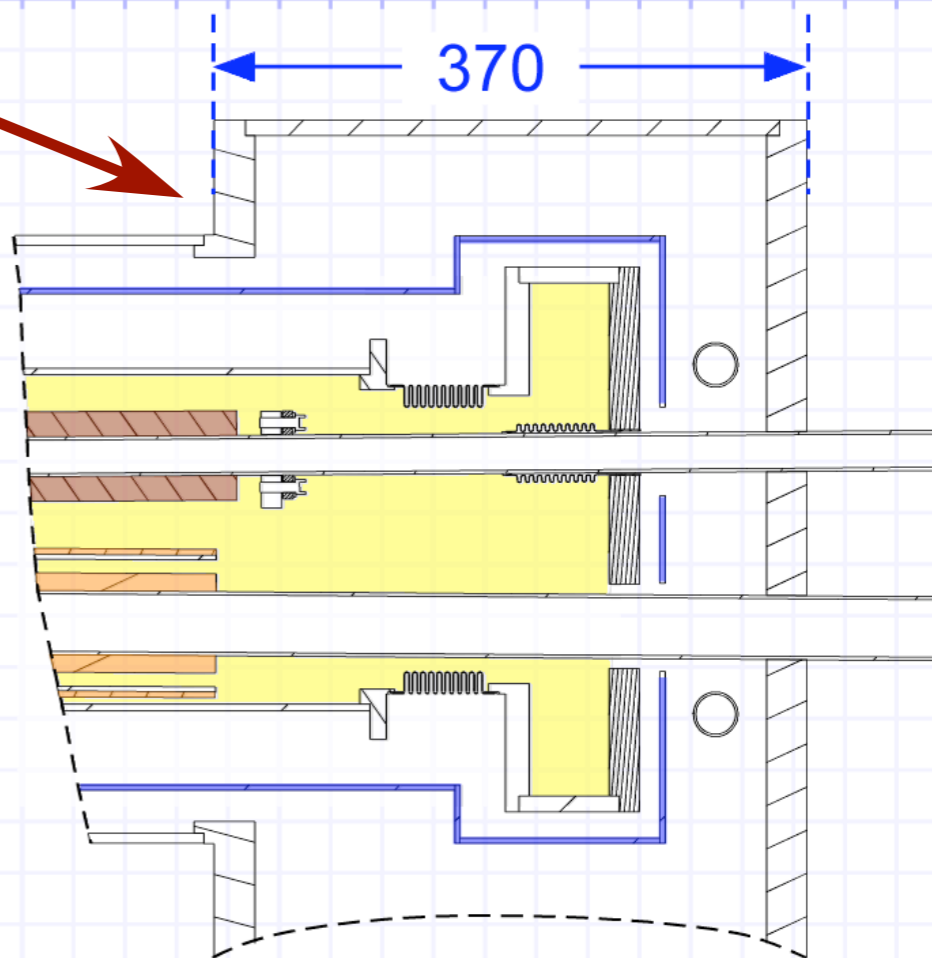


Work is in progress to further reduce maximum transverse size of QD0 cryostat.

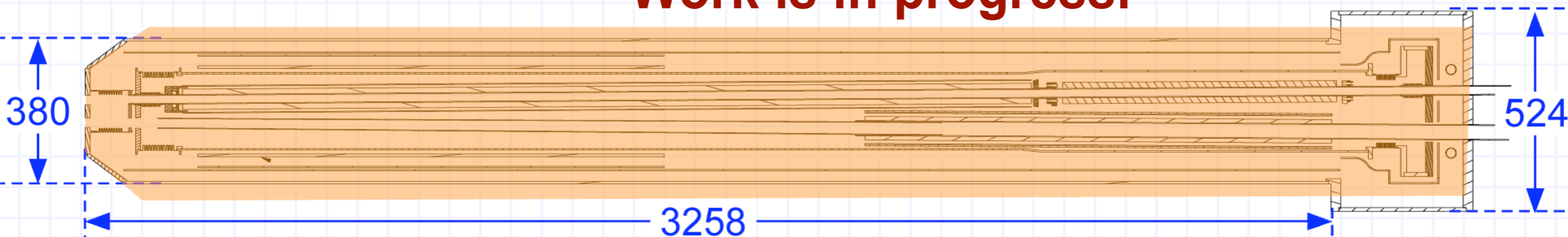
Try to reduce this step!



QD0 cryostat with a force neutral anti-solenoid compatible with L^* of up to 4.5 m. Plan views are drawn at beams' common midplane; dimensions are as indicated in millimeters.



Work is in progress.



Size He-II connections for 15 watt heat load.

Minimum cryostat diameter depends upon L^* ; worst case scenario, 4.5m is shown.

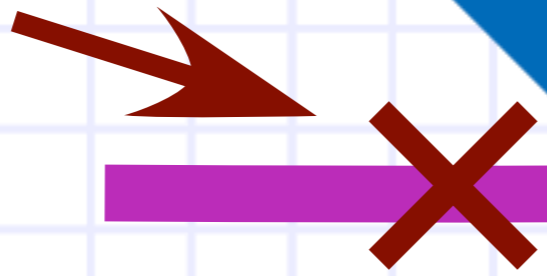
ILC Cooling Scheme

End View

Region with 1.9 K, 1 bar He-II cooling

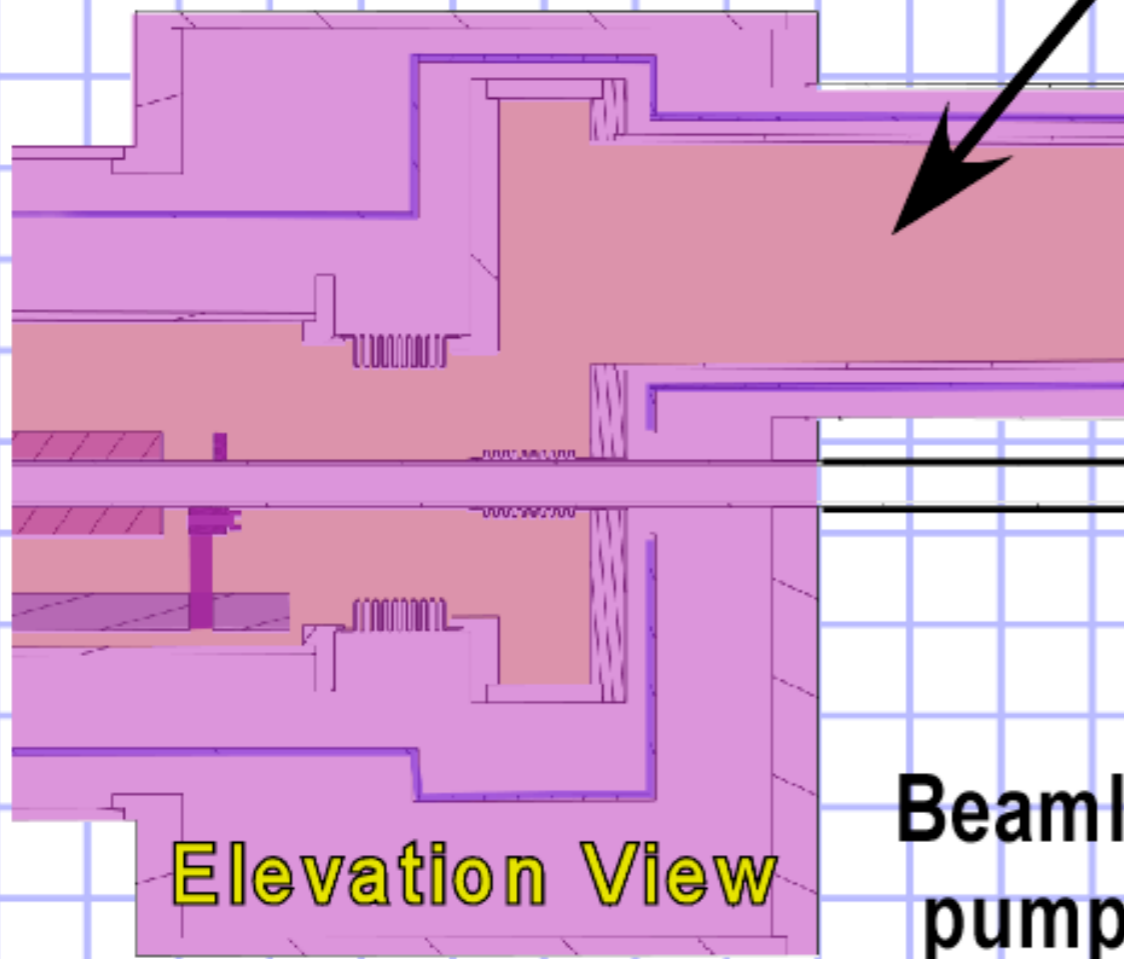
Vacuum return lines?

Need to warm up to disconnect here?

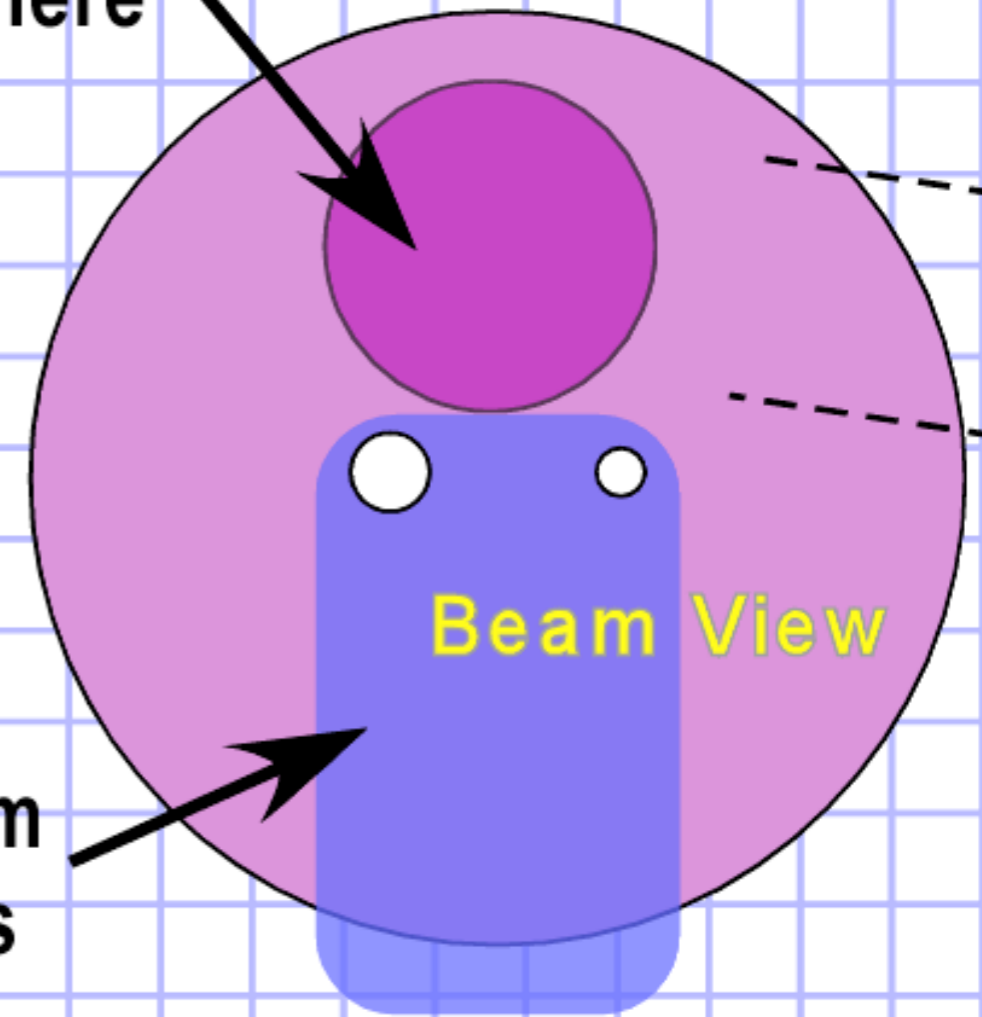


“Umbilical Connection”

Bring out top in order
not to interfere

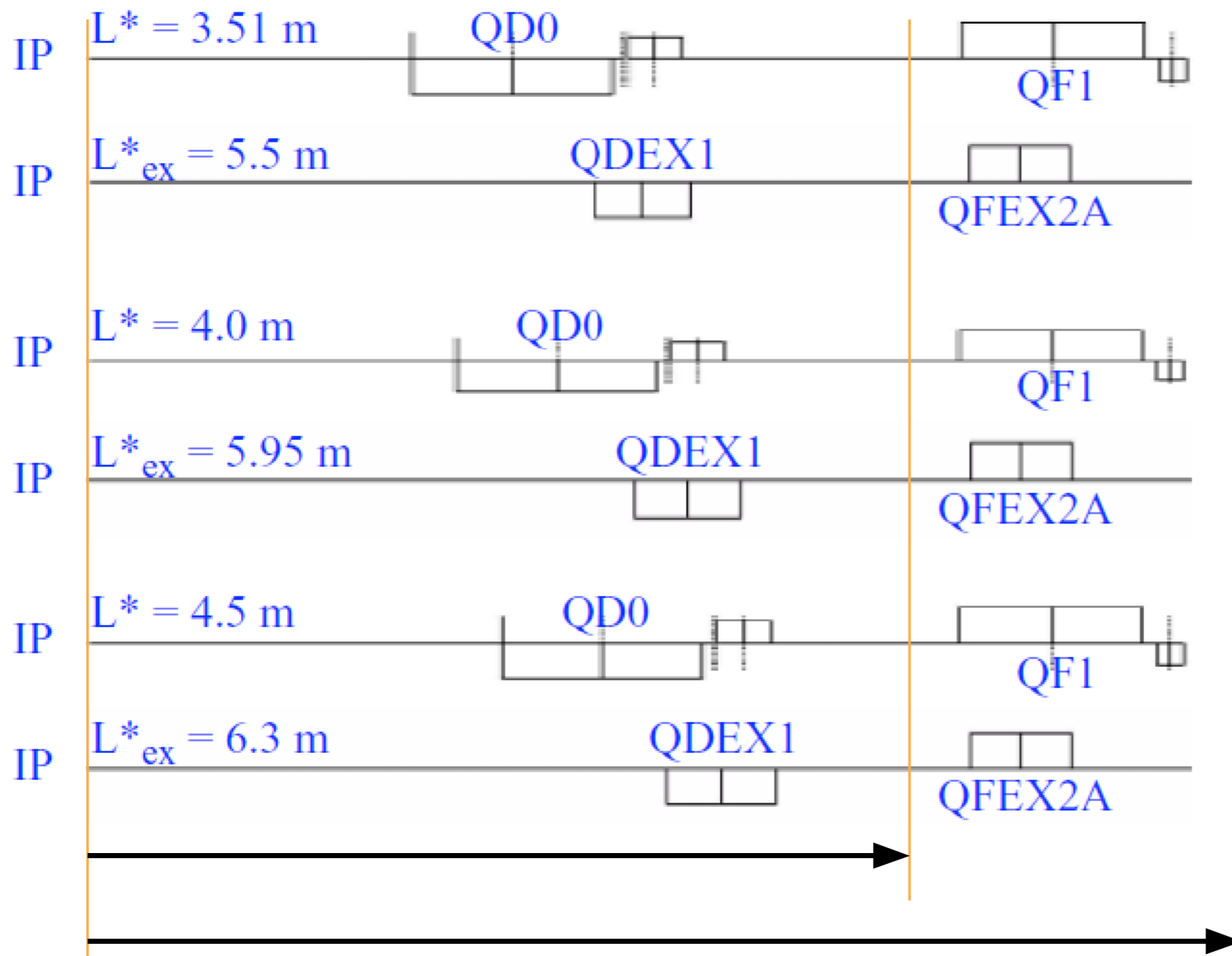


Beamlines, vacuum
pumps and valves





To minimize hall excavation, we make push-pull cut point between QD0 and QF1.



Cutting between QD0 and QF1 is certainly the most aggressive scenario and is motivated by our desire to minimize the size of the underground hall. Once we have a solution, if later on we find some reason that dictates cutting after QF1 (i.e. for common support structure) it is straightforward to implement such a change.

Comparison of half-hall size with push-pull cut point before or after the QF1 cryostat.