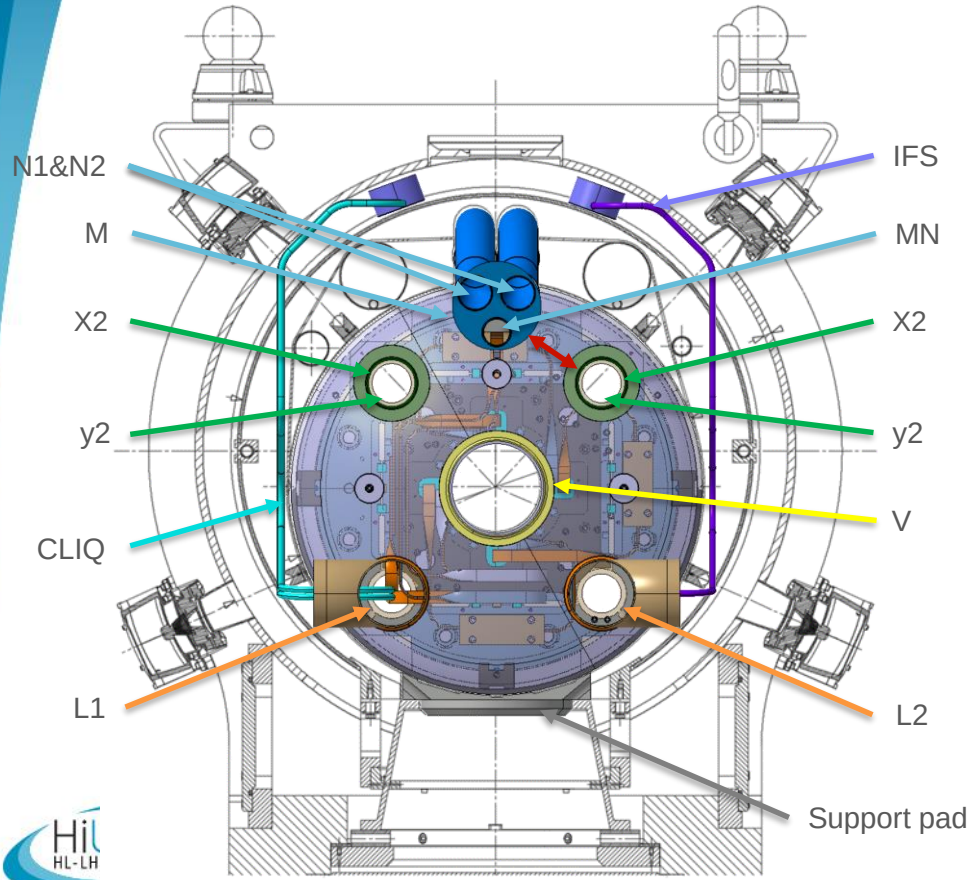
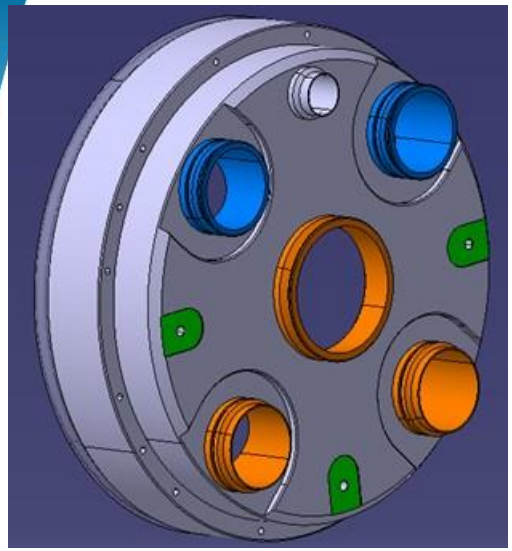
Cold mass interface specification proposal

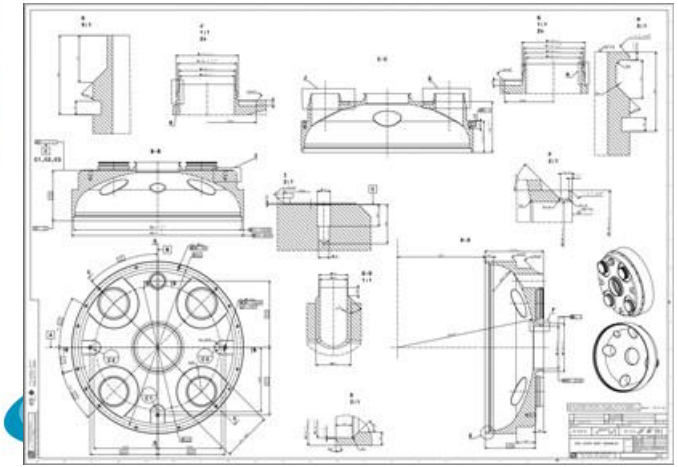
LMQFXB Cold Mass Layout Boundary



N1 & N2	Auxilary lines for Trim and Correctors Busbars
M	Aperture for the cold mass busbars
MN	Busbars Interconnection line
X1 & X2	Heat exchanger tubes
y1 & y2	Helium inlets
V	Beam pipe
L1 & L2	Conduction path for HeII (2x75cm^2)
IFS	Instrumentation feethroughs capillary
CLIQ	CLIQ feedthroughs current leads

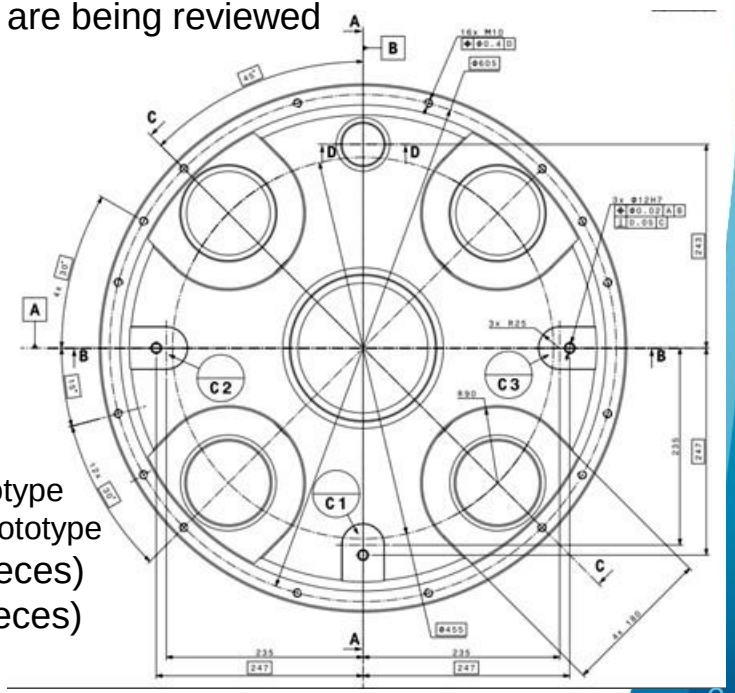
End covers





Divisional Request under preparation

- On going studies to machine the end covers from a forged blank
- Material specification in process
- Fabrication drawings are being reviewed

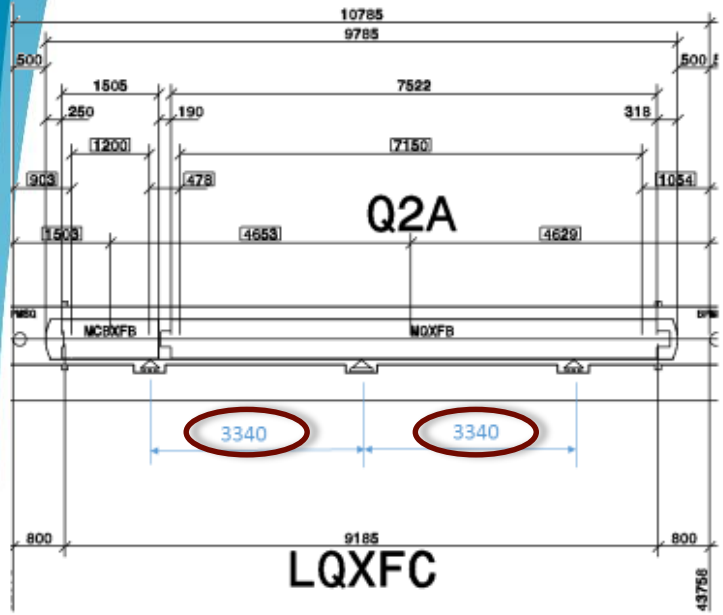


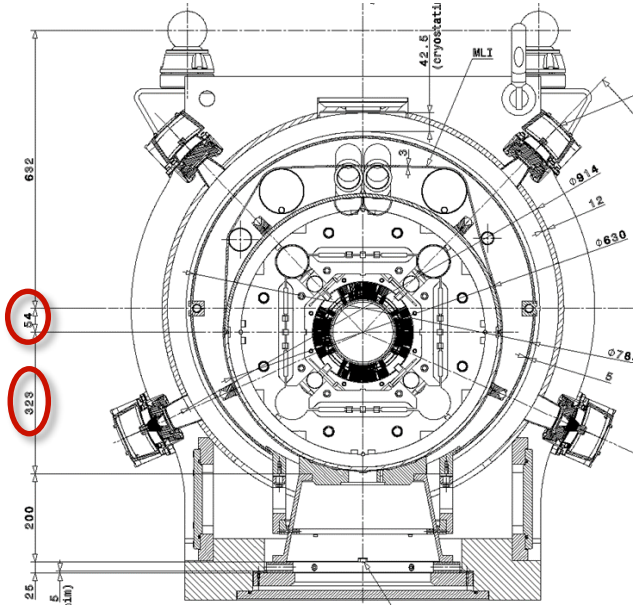
Delivery schedule:

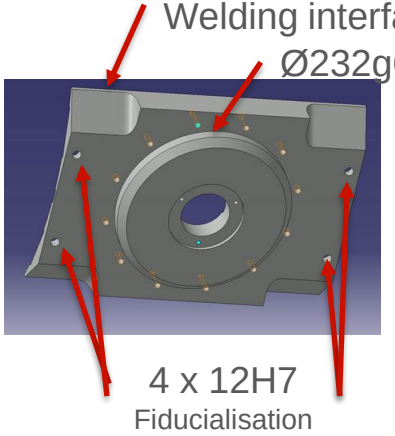
- 4 fin Apr 2019
  - 2 for the US CM prototype
  - 2 for the CERN 2nd prototype
- 40% Oct 2019 (25 pieces)
- 60% Apr 2020 (37 pieces)

LMQFXB Cold Mass Layout Supporting System

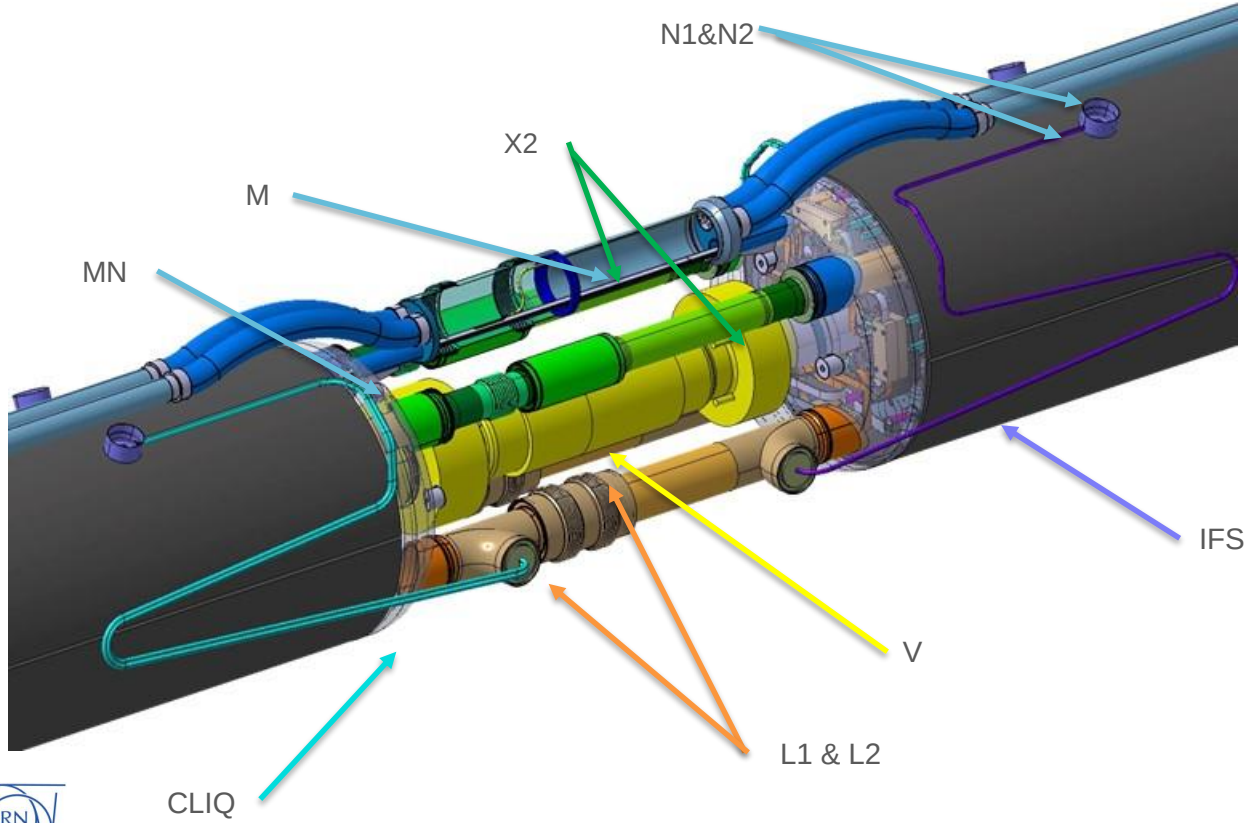
Identical supporting configuration used for Q1/Q3 and Q2A/B







Cold masses interconnections



Cold masses extremities
Interface proposal for the delivery at CERN