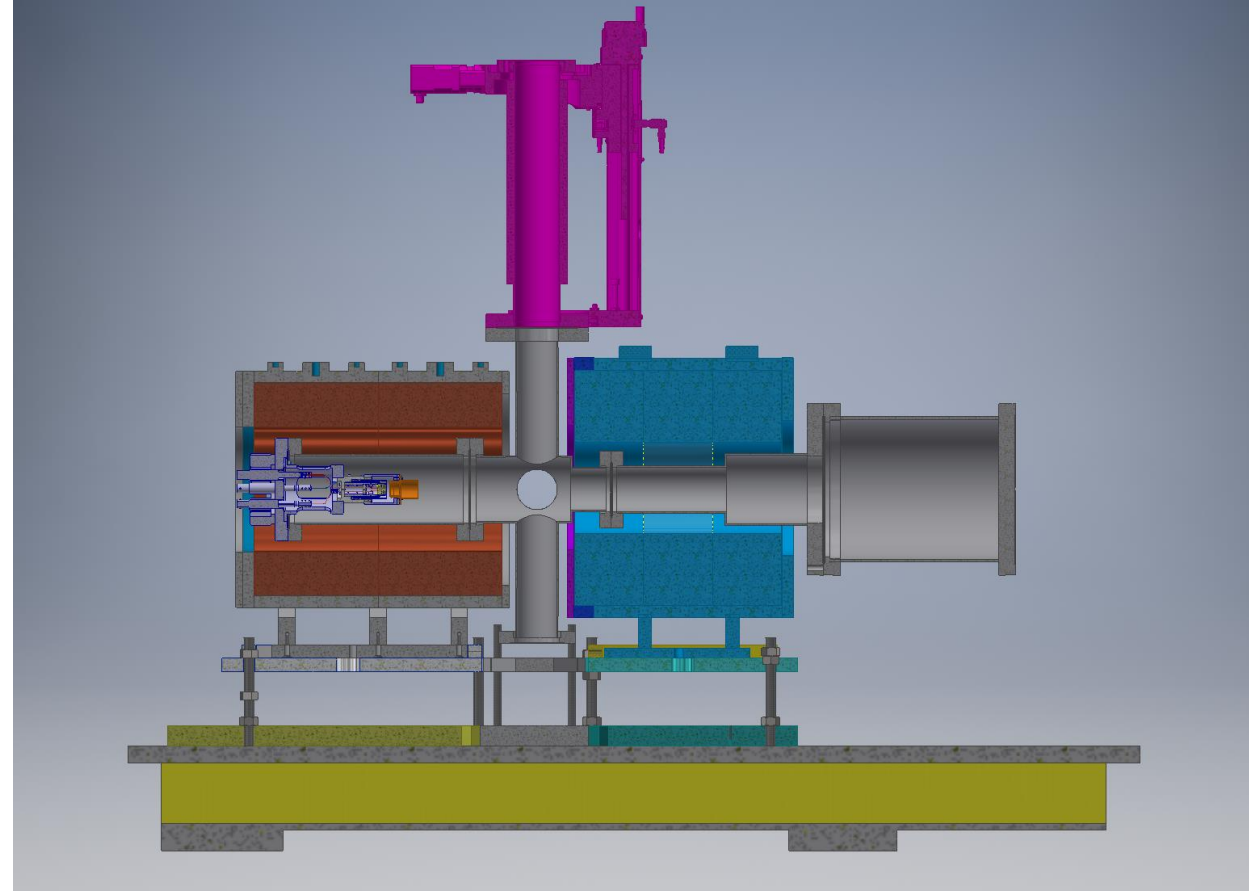


Status of CERN electron lenses test stand

Plan:

- To check if current design fits requirements for SCC gun
- To provide parameters for already existing equipment
- To clarify unknown parameters (diagnostics and vacuum)

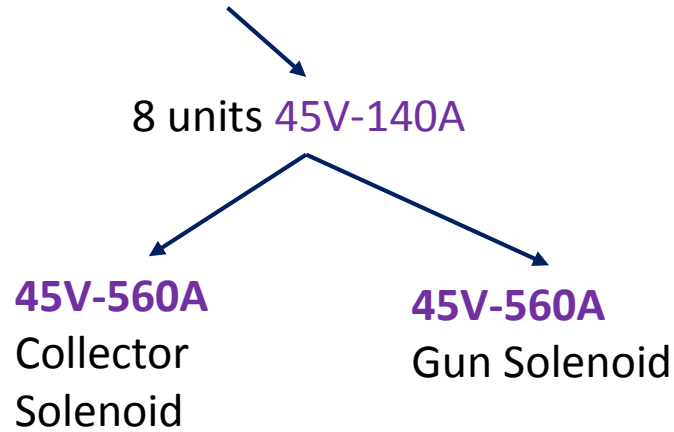
Lab



07/11/2013

Solenoids and power converters

Power converters are installed

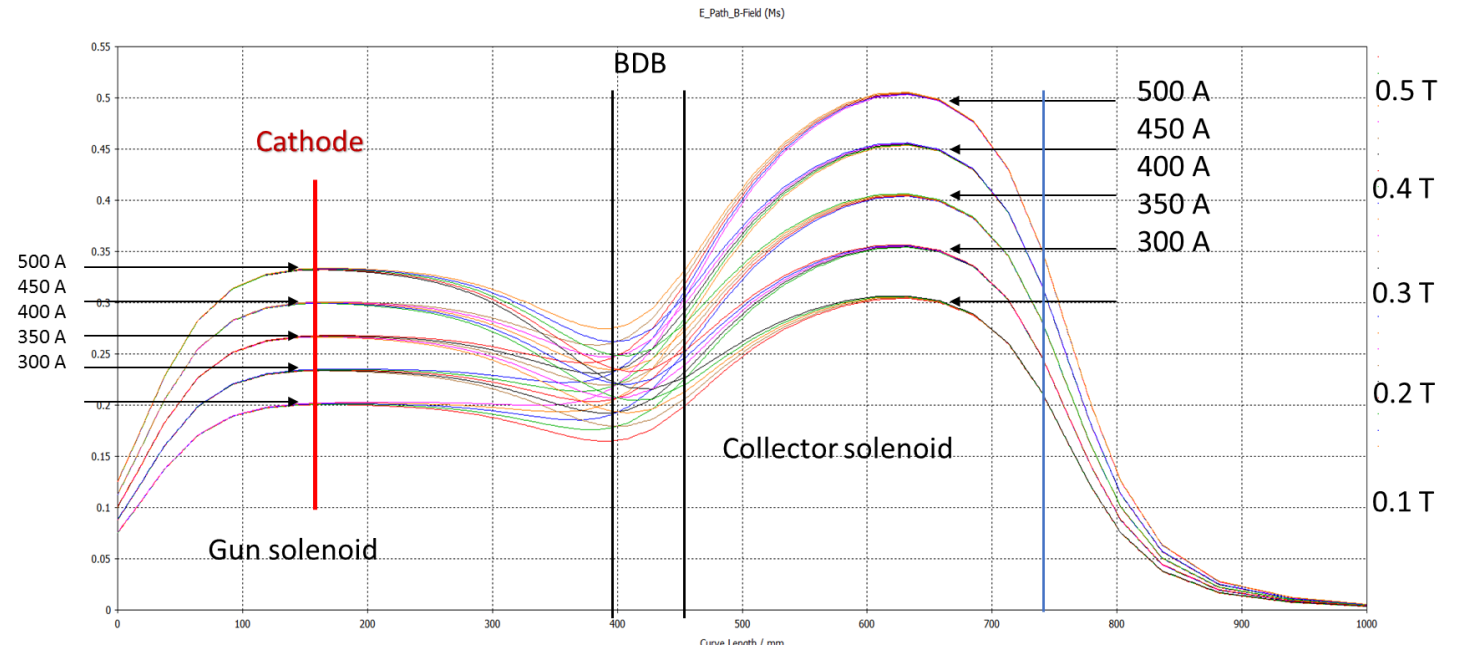


Solenoids are available

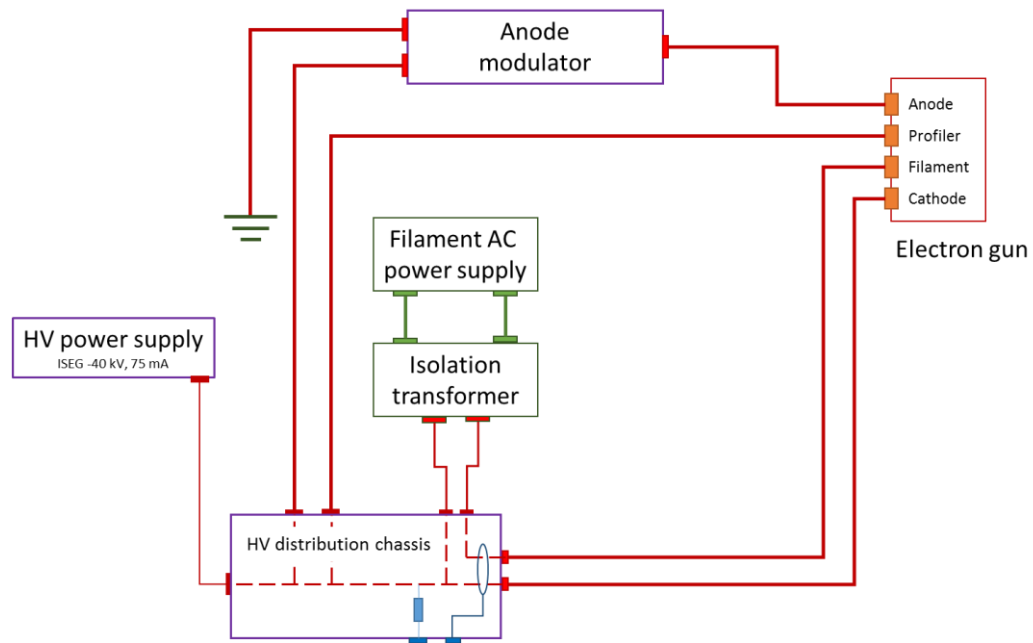
Up to **0.35 T** in the gun solenoid

Up to **0.50 T** in the collector solenoid

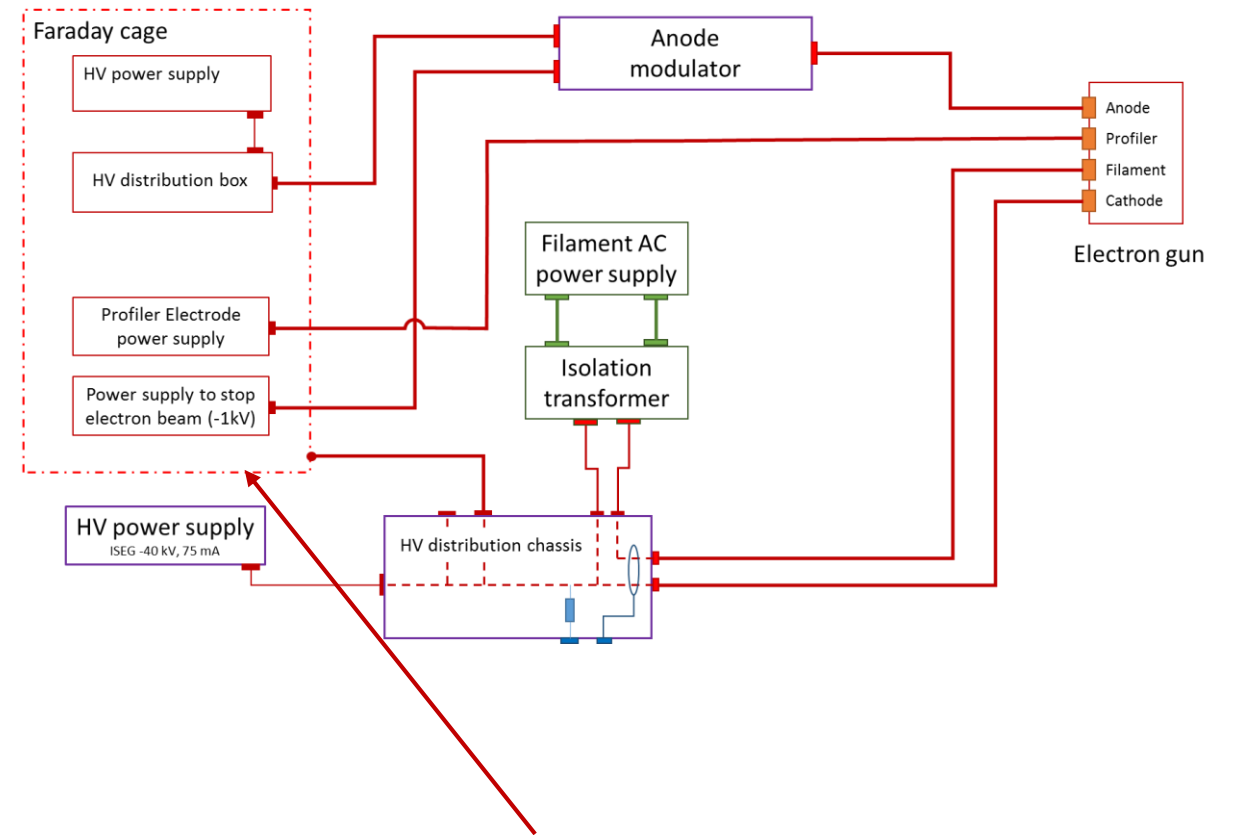
Installation of water cooling system is under preparation



HV circuits

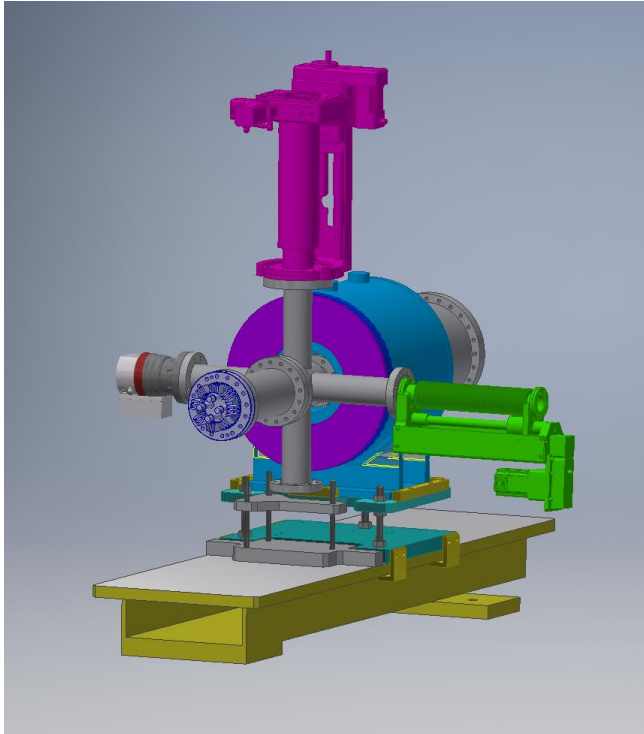


Extraction voltage is up to **40 kV**
Filament power supply **20A 40V**



Items in the Faraday Cage are not ordered

Beam diagnostics

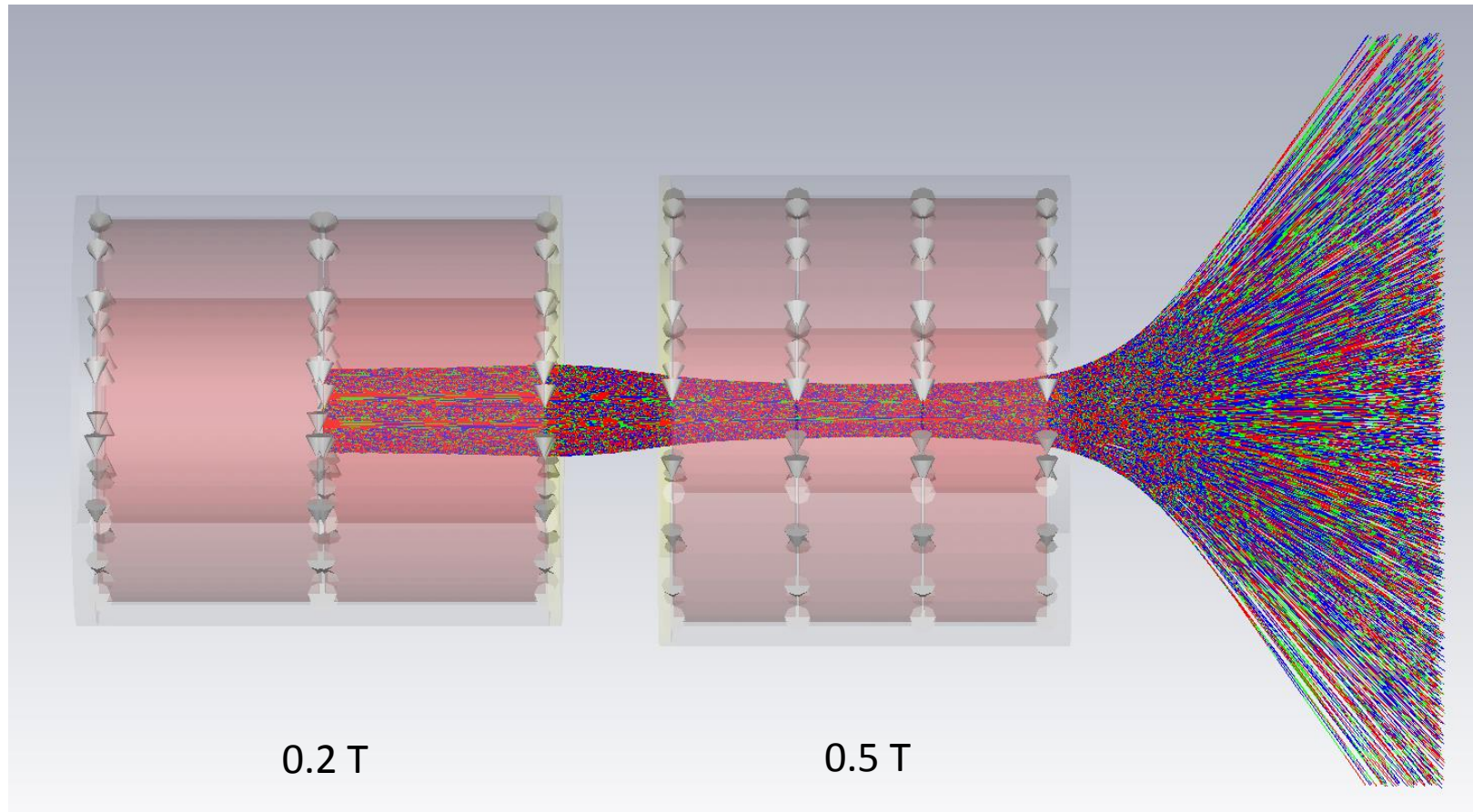


Requirements for SCC gun:
profile measurement (resolution, precision)
Faraday Cup vs YAG screen

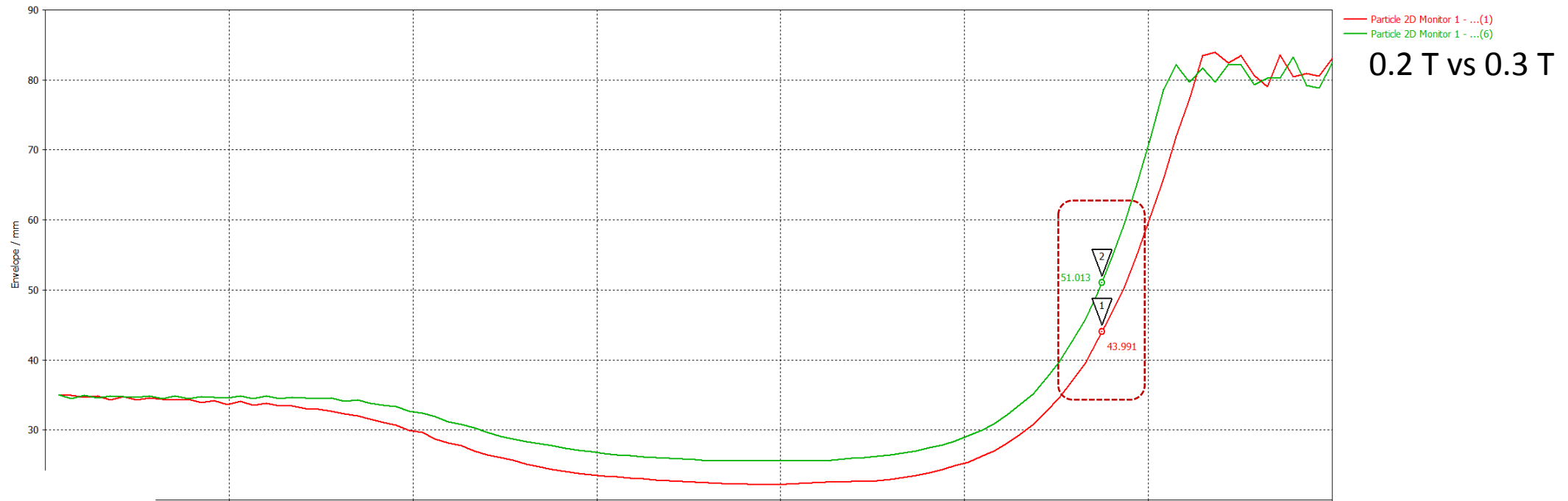
Longitudinal measurements (resolution, precision)

Minimum length of the pulse for SCC gun
(maximum energy to dissipate – collector, FC, HV circuit, etc.)

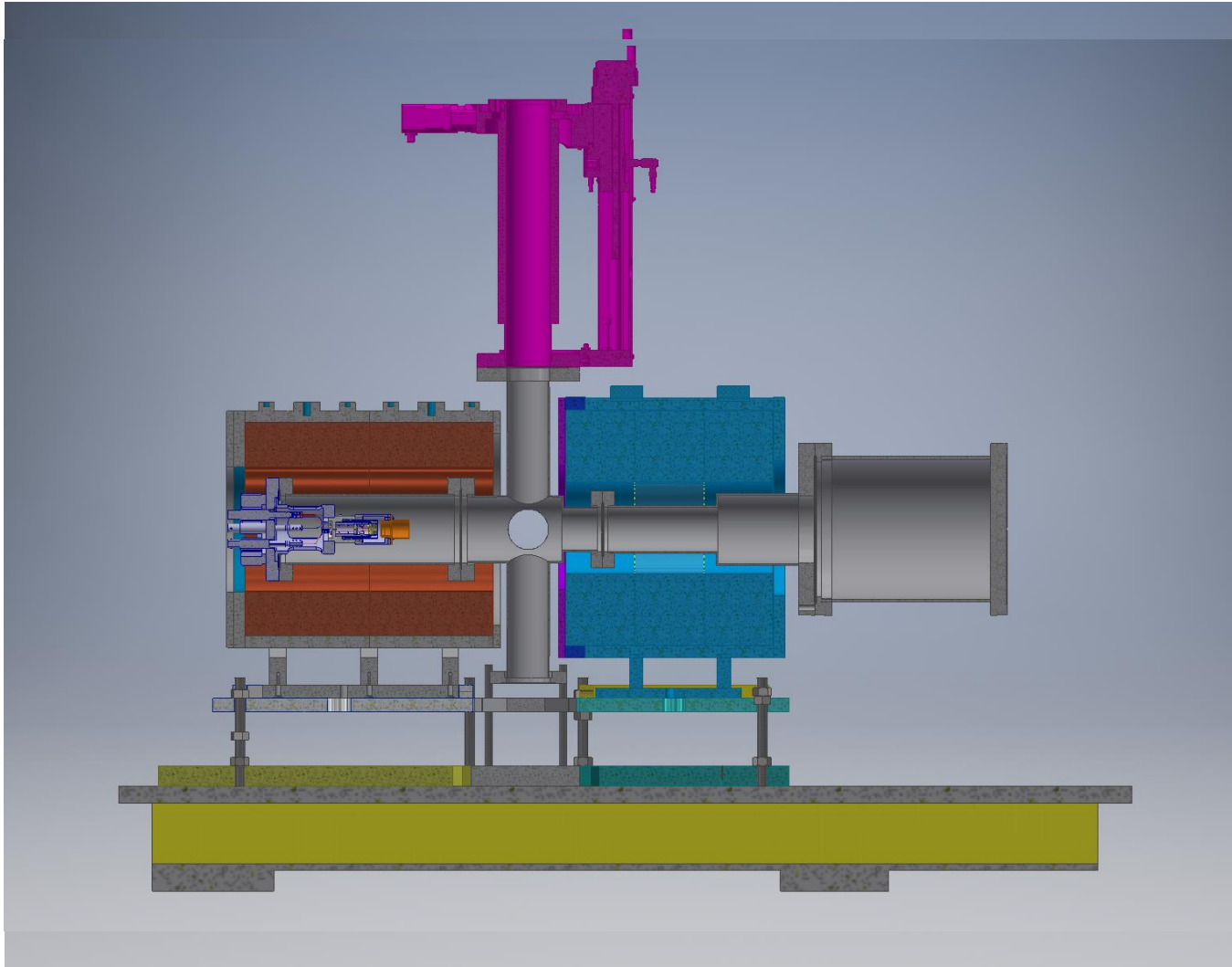
Beam dynamics



Beam dynamics - 2



Vacuum system



Aperture restriction:

Gun Solenoid: **185 mm**

Collector Solenoid: **130 mm**

Minimum field in the gun solenoid required?