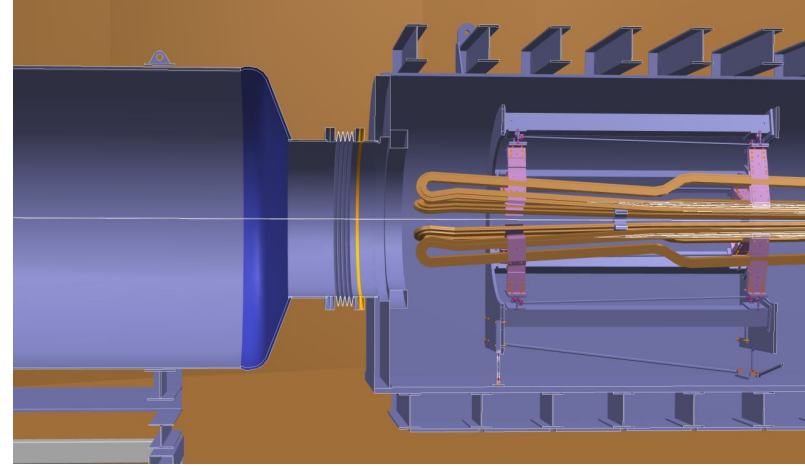
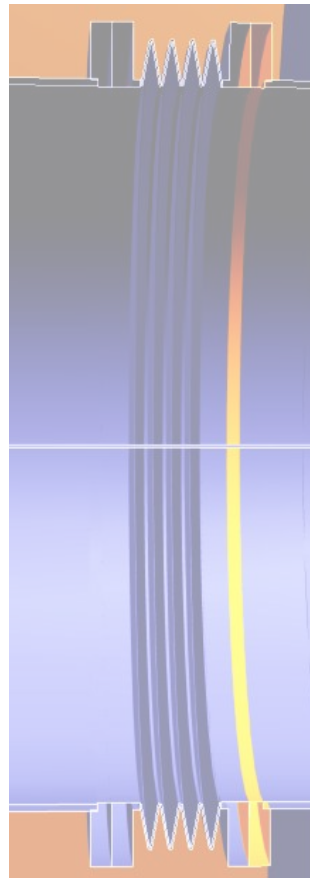
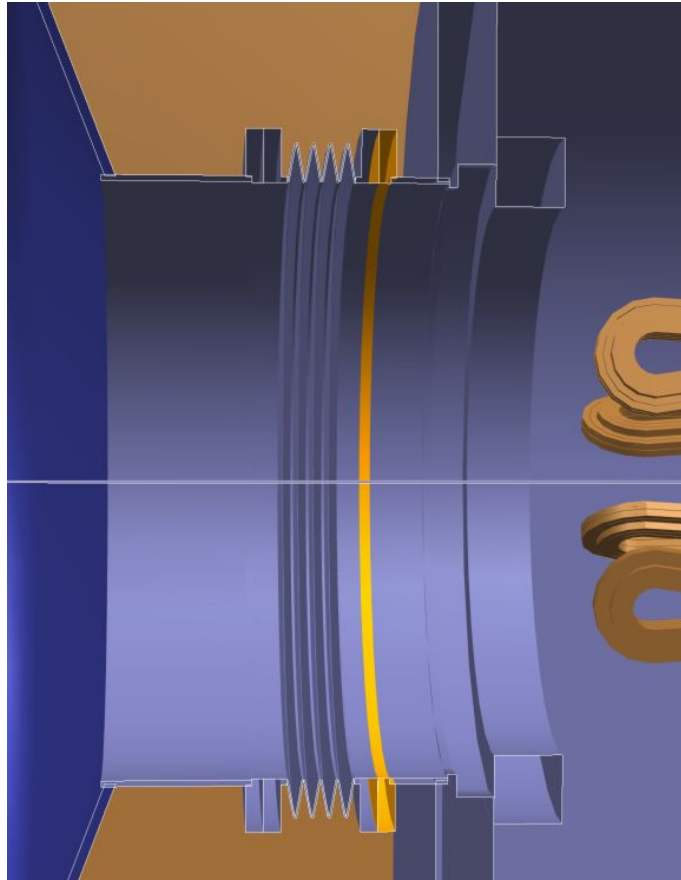


# Downstream design ideas

Ciprian Gal, Kent Paschke

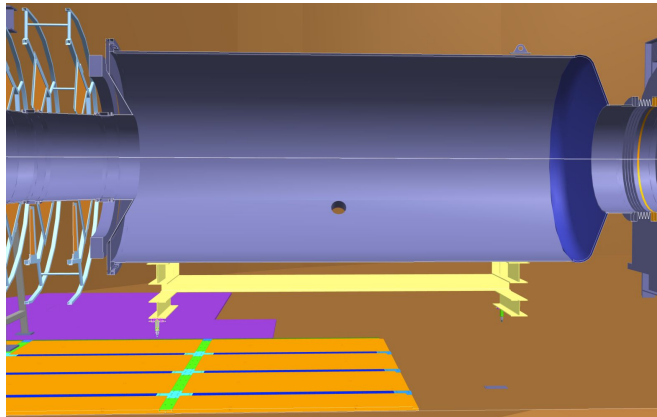
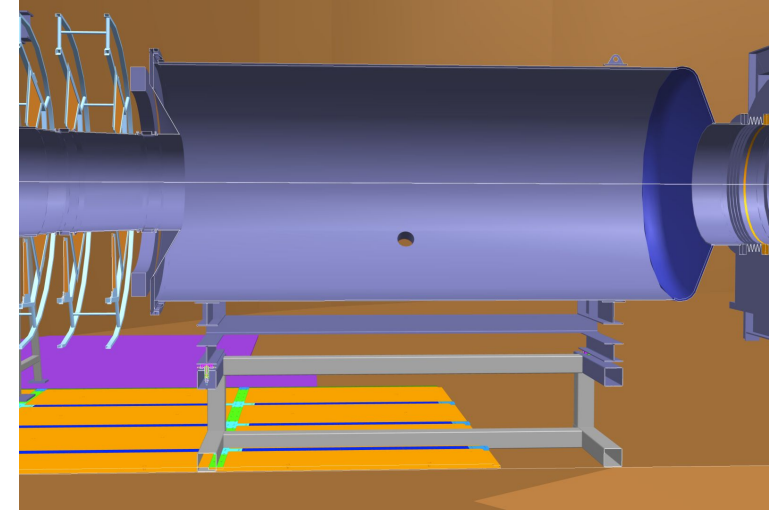
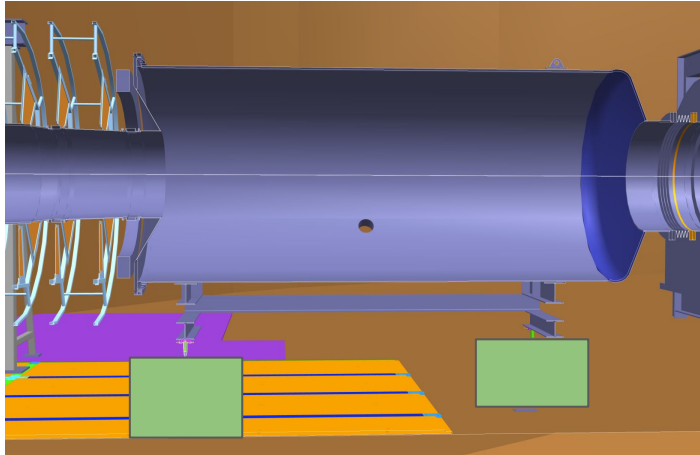


# Bellow 4 size

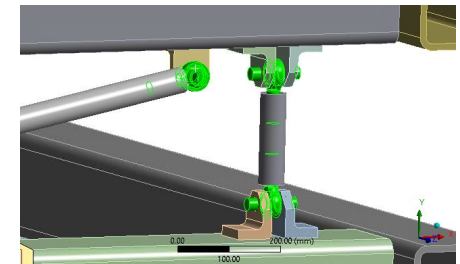


- Currently the bellows has an inner radius of 648mm
  - We still see quite a bit rescattering from this bellows getting to the main detector
  - **Would it be possible to increase the radius by 20-50mm ?**

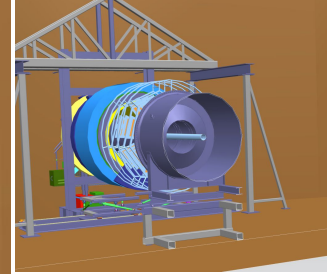
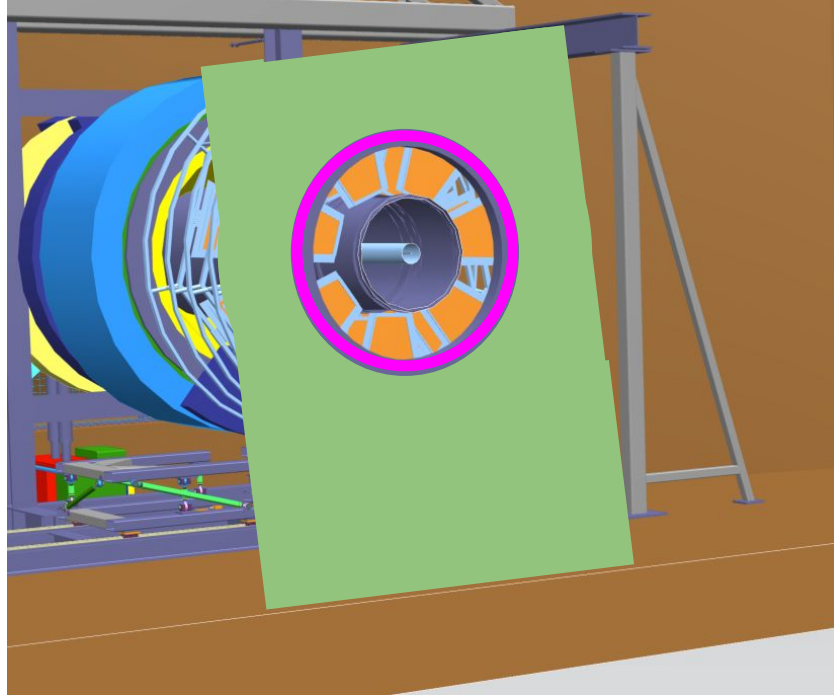
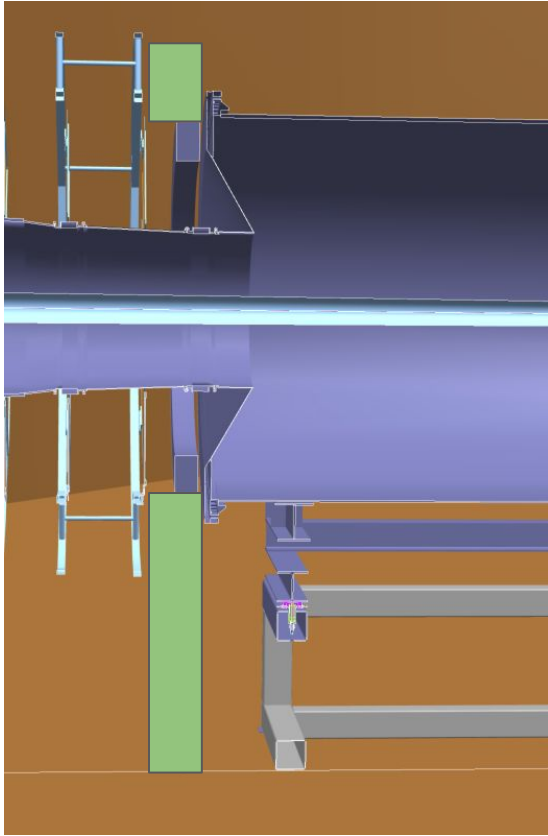
# Drift pipe support



- We are worried about possible rescattering from magnetized material (like iron in steel) from underneath the drift pipe and reaching the main detector
- Would it be possible to support the pipe on concrete blocks rather than a steel structure (like top pictures)?
  - Would be worth considering this (cost wise) compared to just having aluminium frame?
- Small amounts of steel needed to connect different components can be made out of steel



# End of drift pipe



- For the support of collar2 would it be possible to build a concrete support around it?
  - We would reduce the radial extent of Pb and place the “lead edge” inside this concrete wall
- The thickness of the concrete needs to be evaluated but it probably is going to be on the level of 30cm (whatever size is better for construction is ok with us)
- To allow for integration with the GEMs and pipe (especially the protection of the thin window) we could move the GEMs back or reduce the longitudinal extent of the drift pipe.

