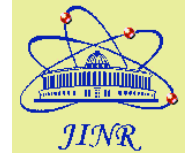




Joint Institute for Nuclear Research

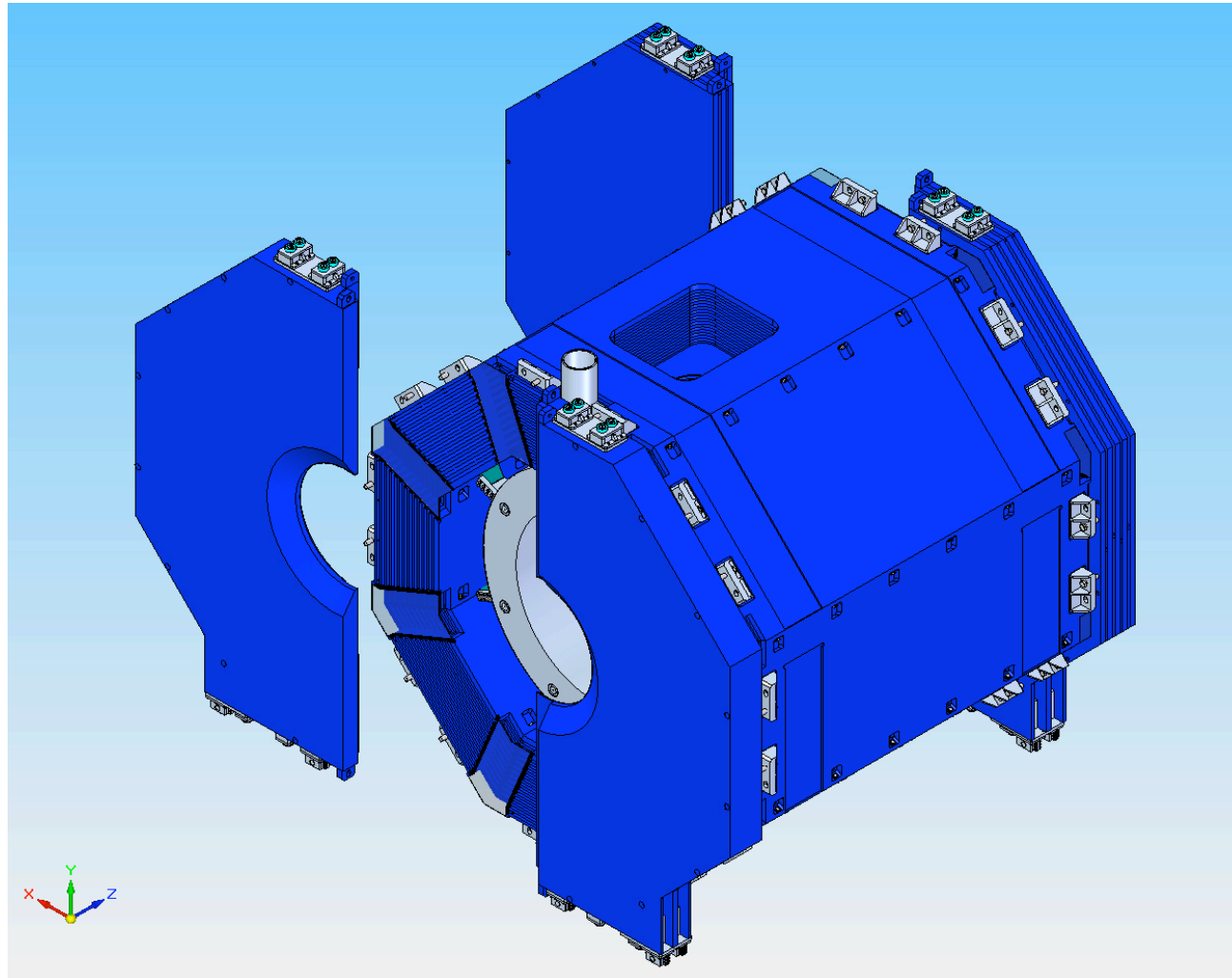


Status of the PANDA TS flux return yoke design

A.Efremov, Yu.Lobanov, A.Makarov

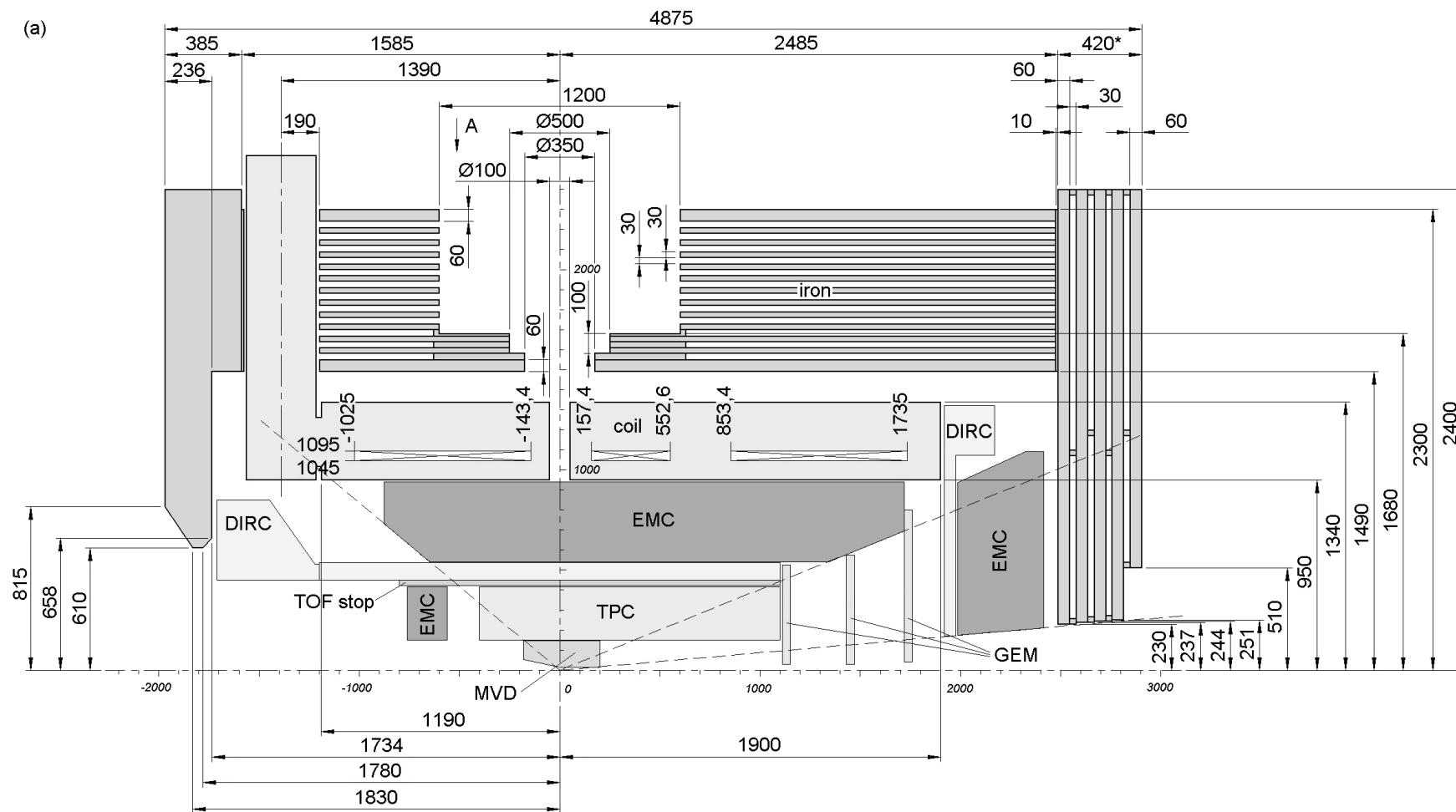
Jülich, 08.09.2009

Yoke layout (new)



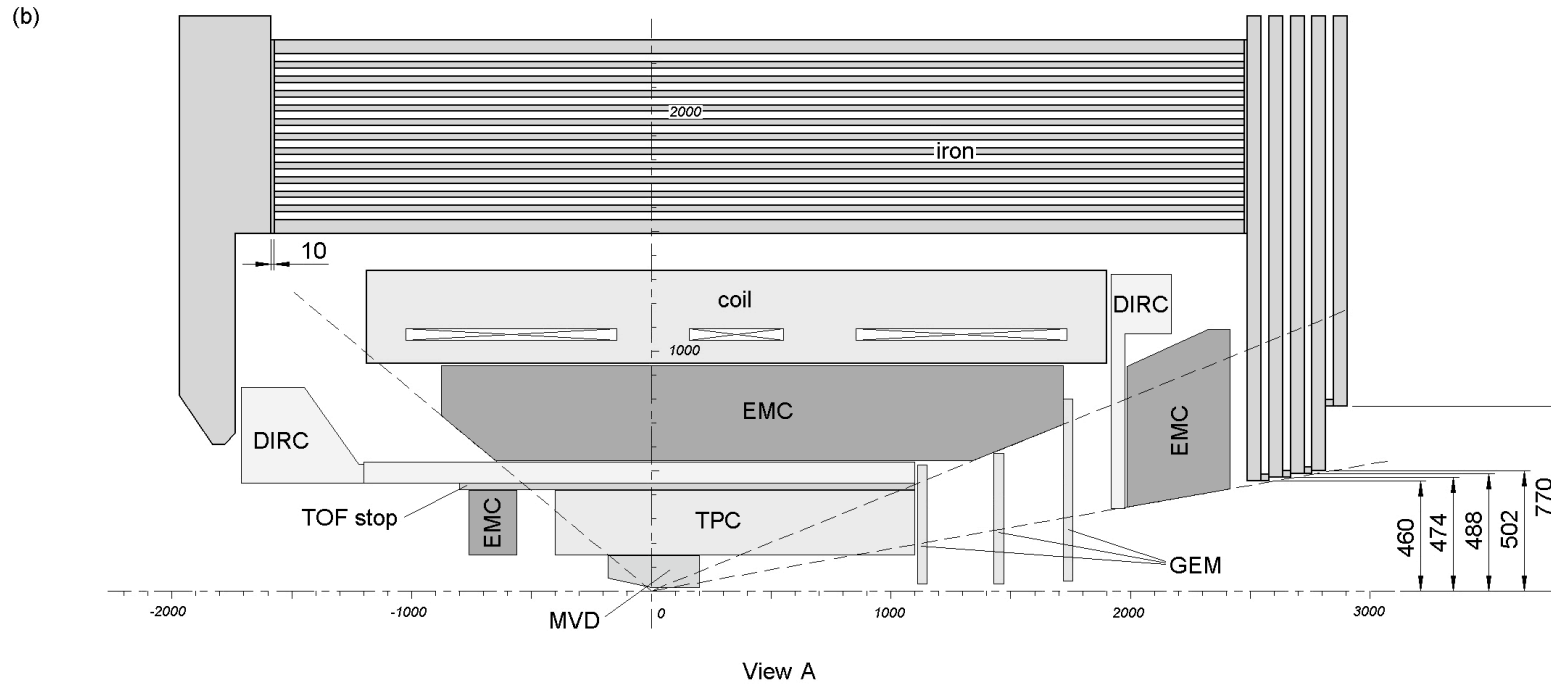
Yoke cross-section

Side view

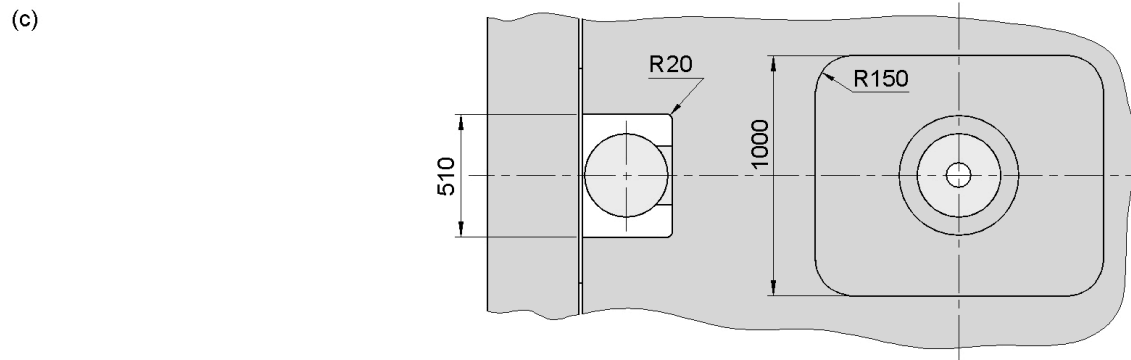


Yoke cross-section

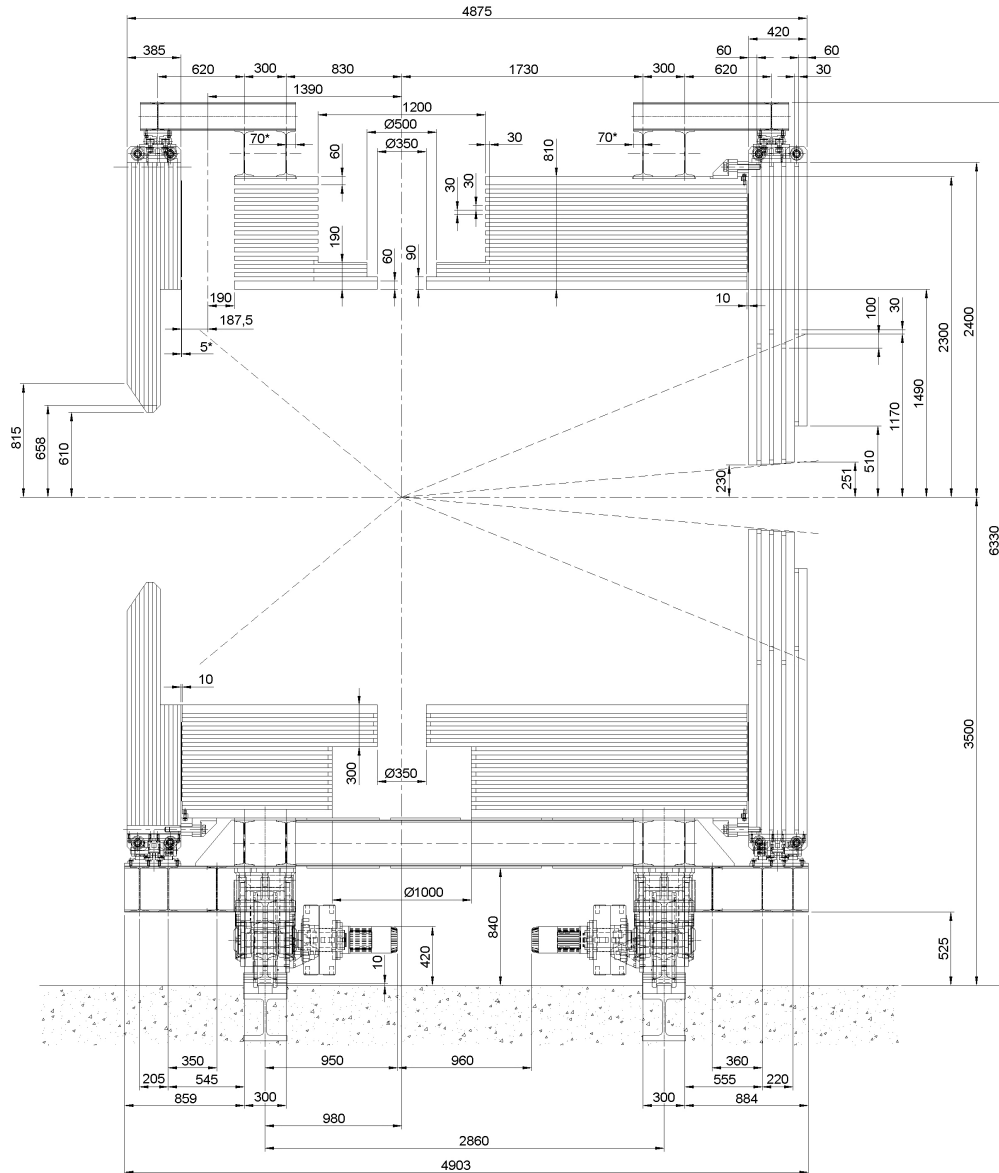
Top view



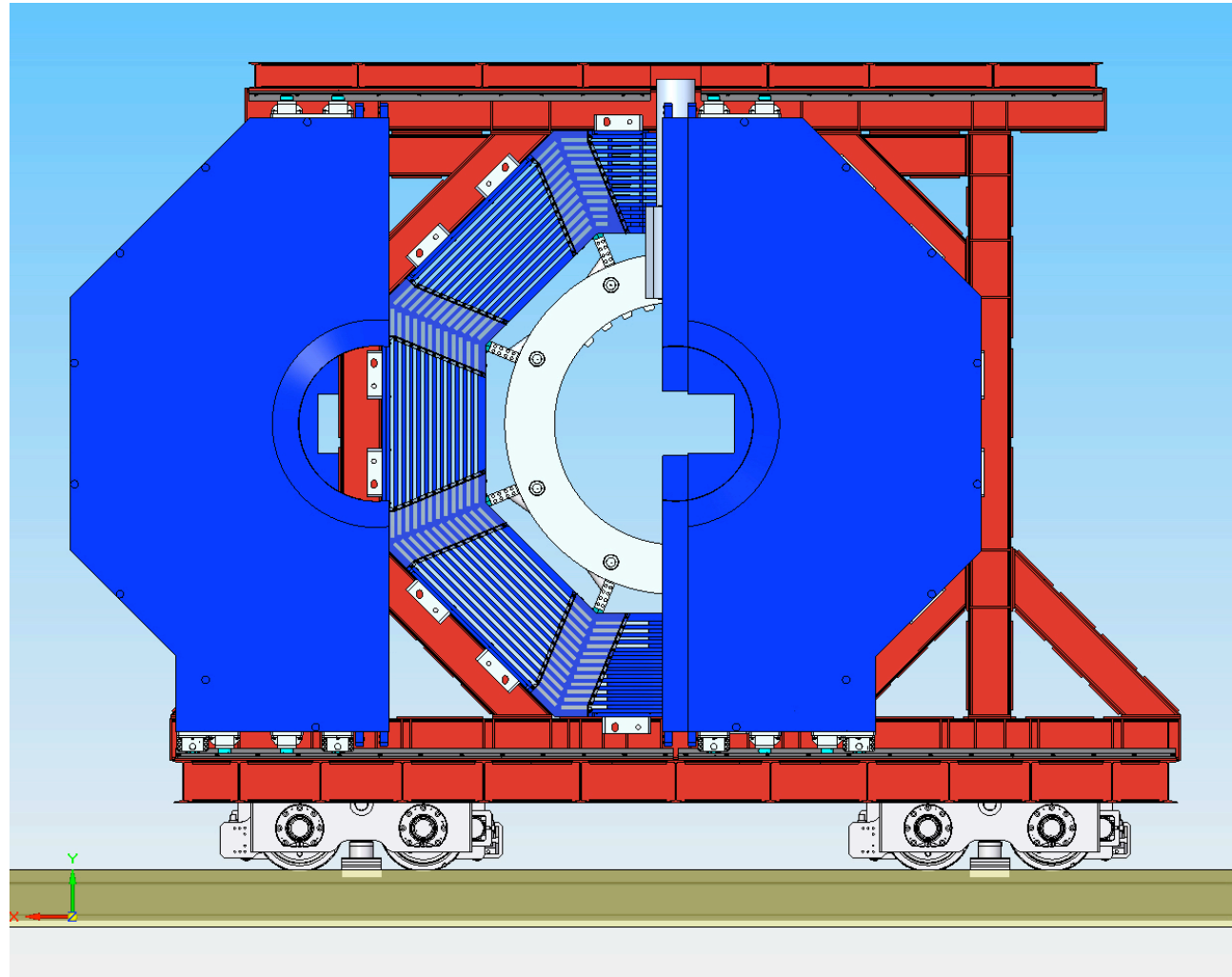
View A



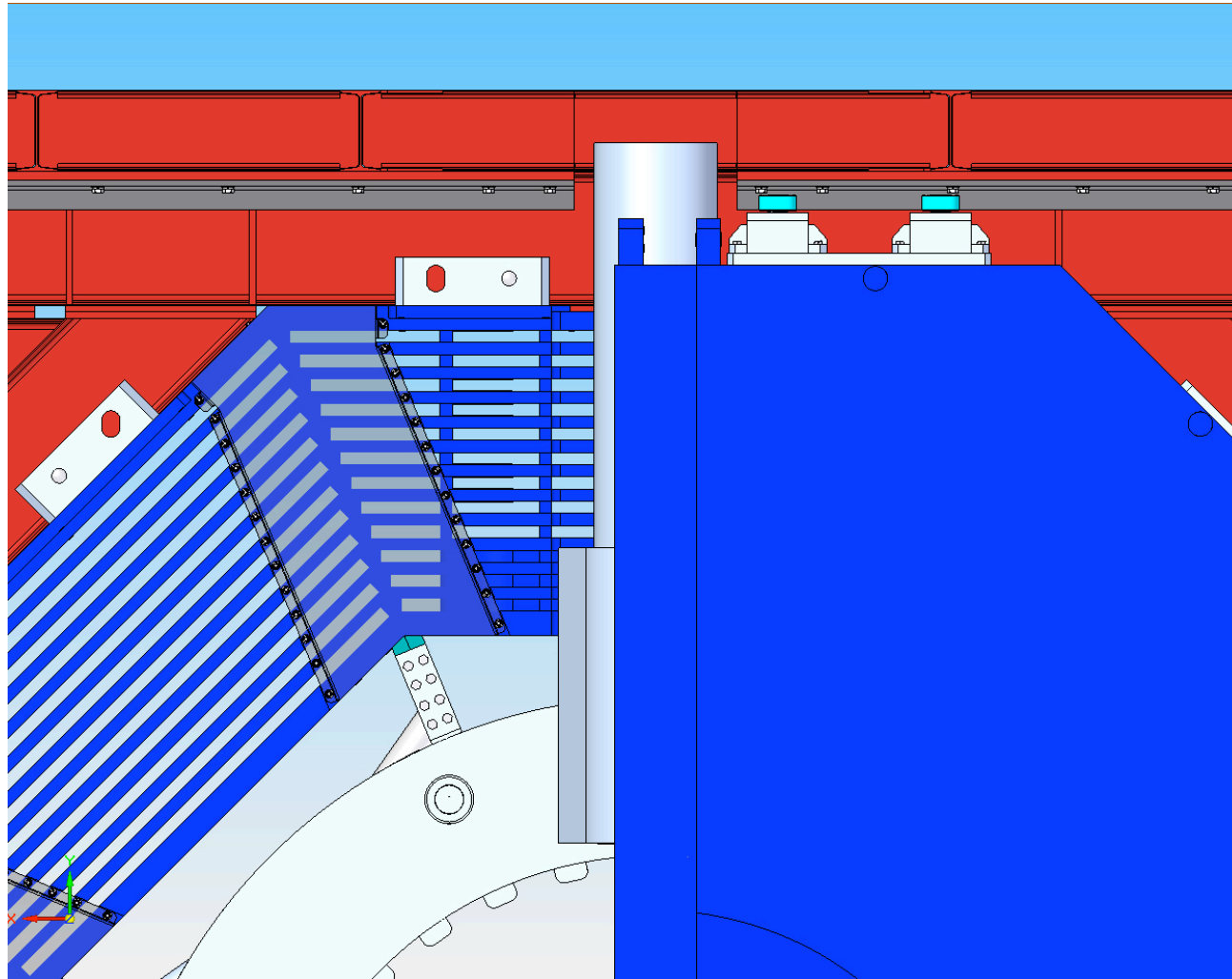
Yoke cross-section



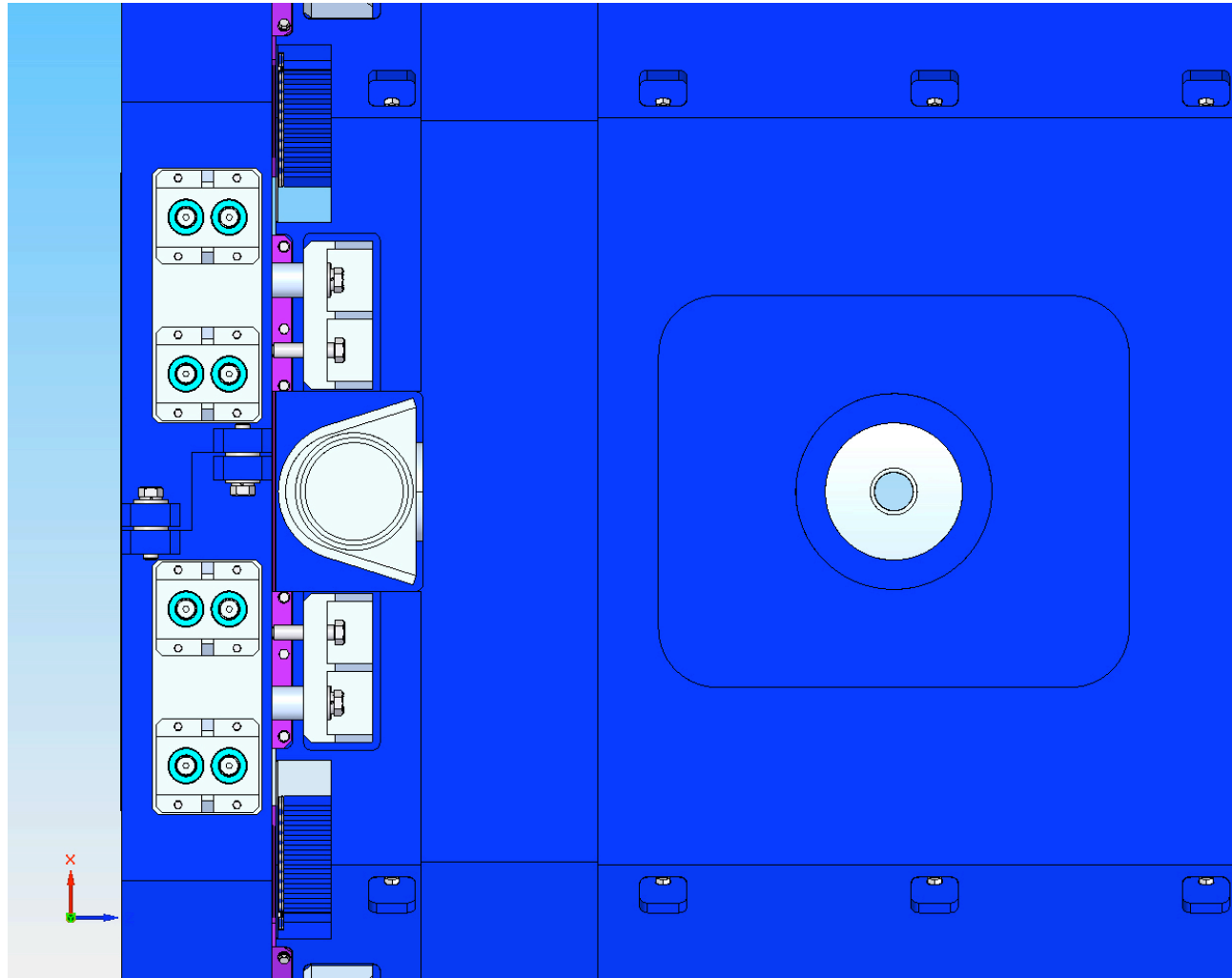
Solenoid front view



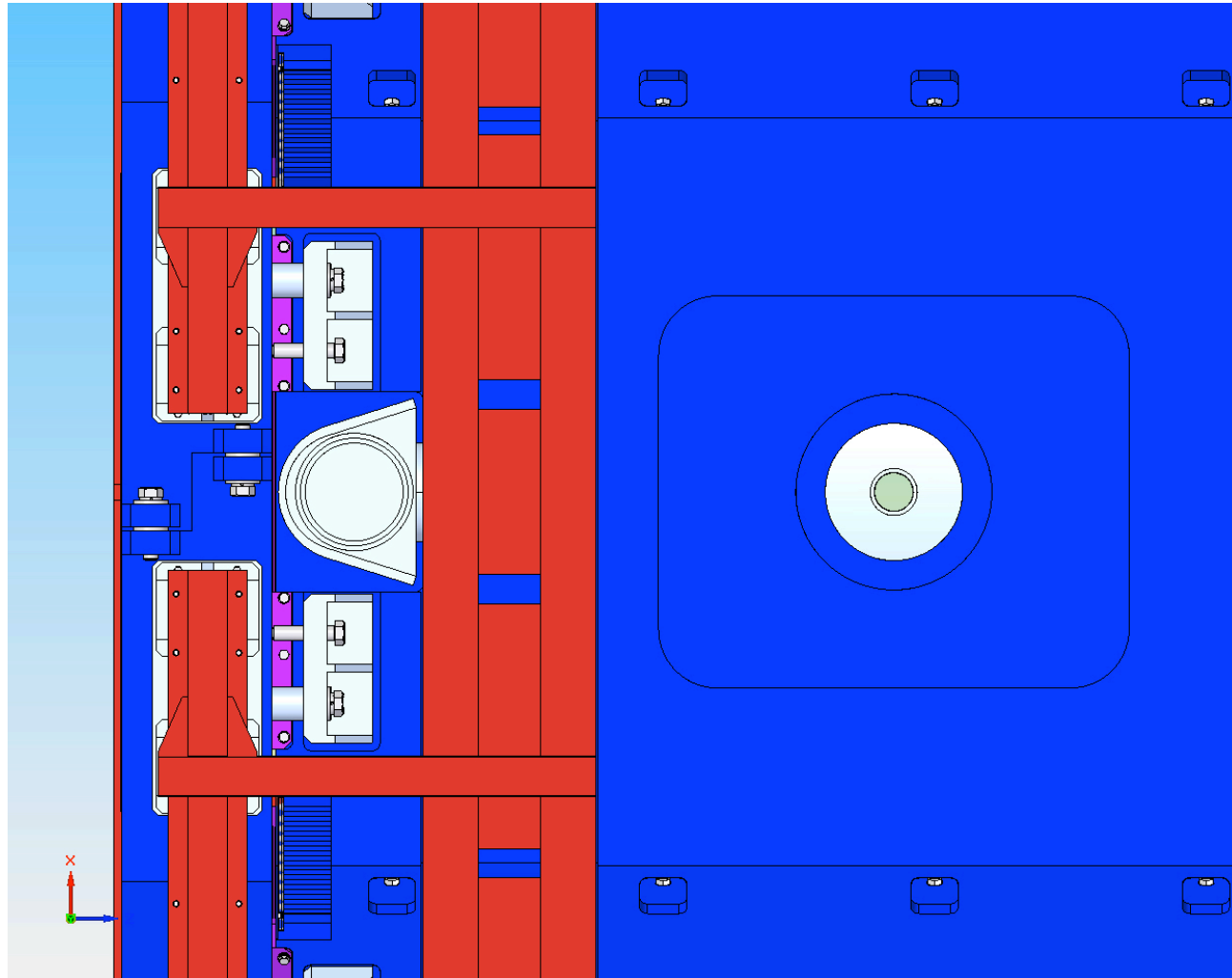
Solenoid front view (detail)



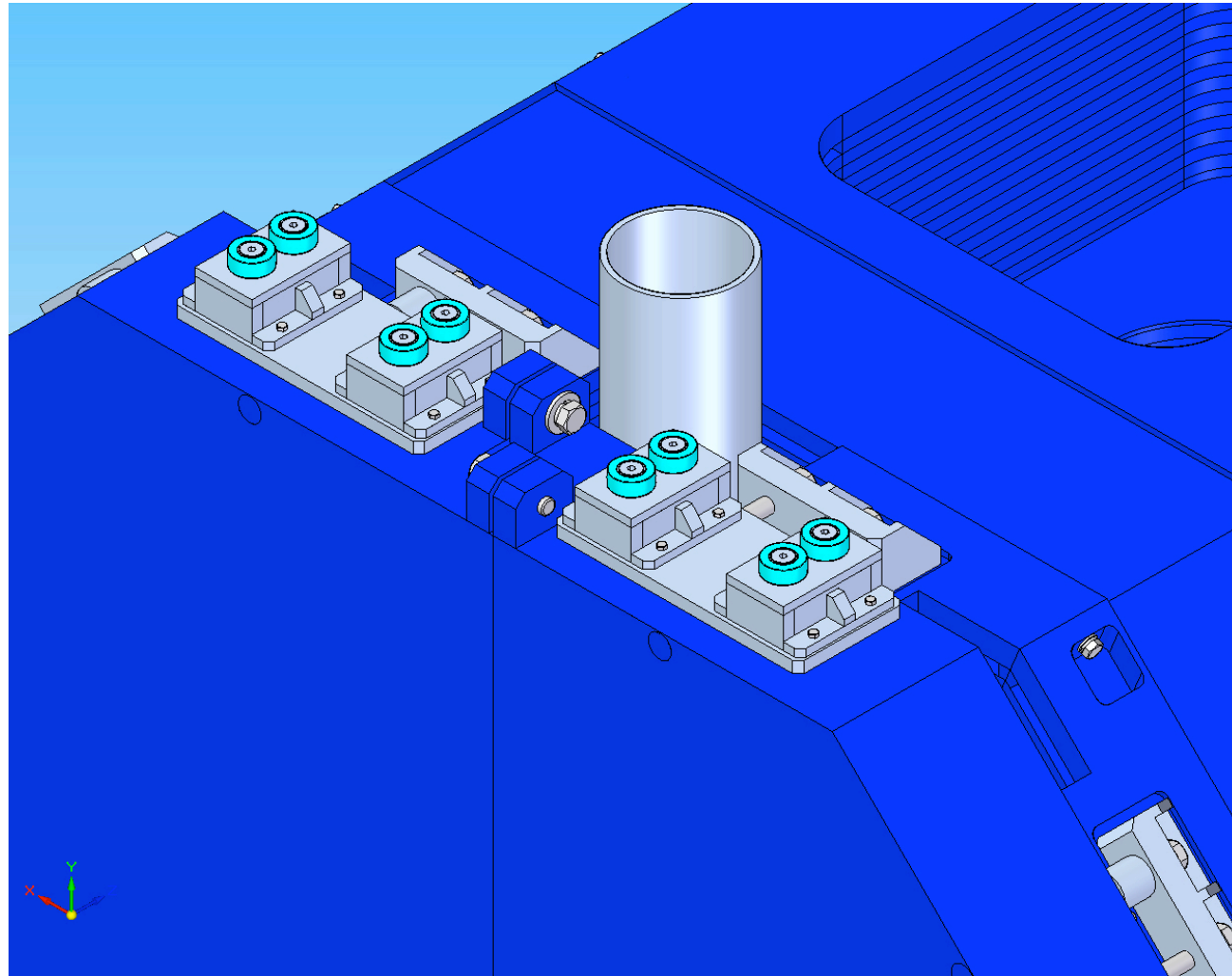
Solenoid top view (detail)



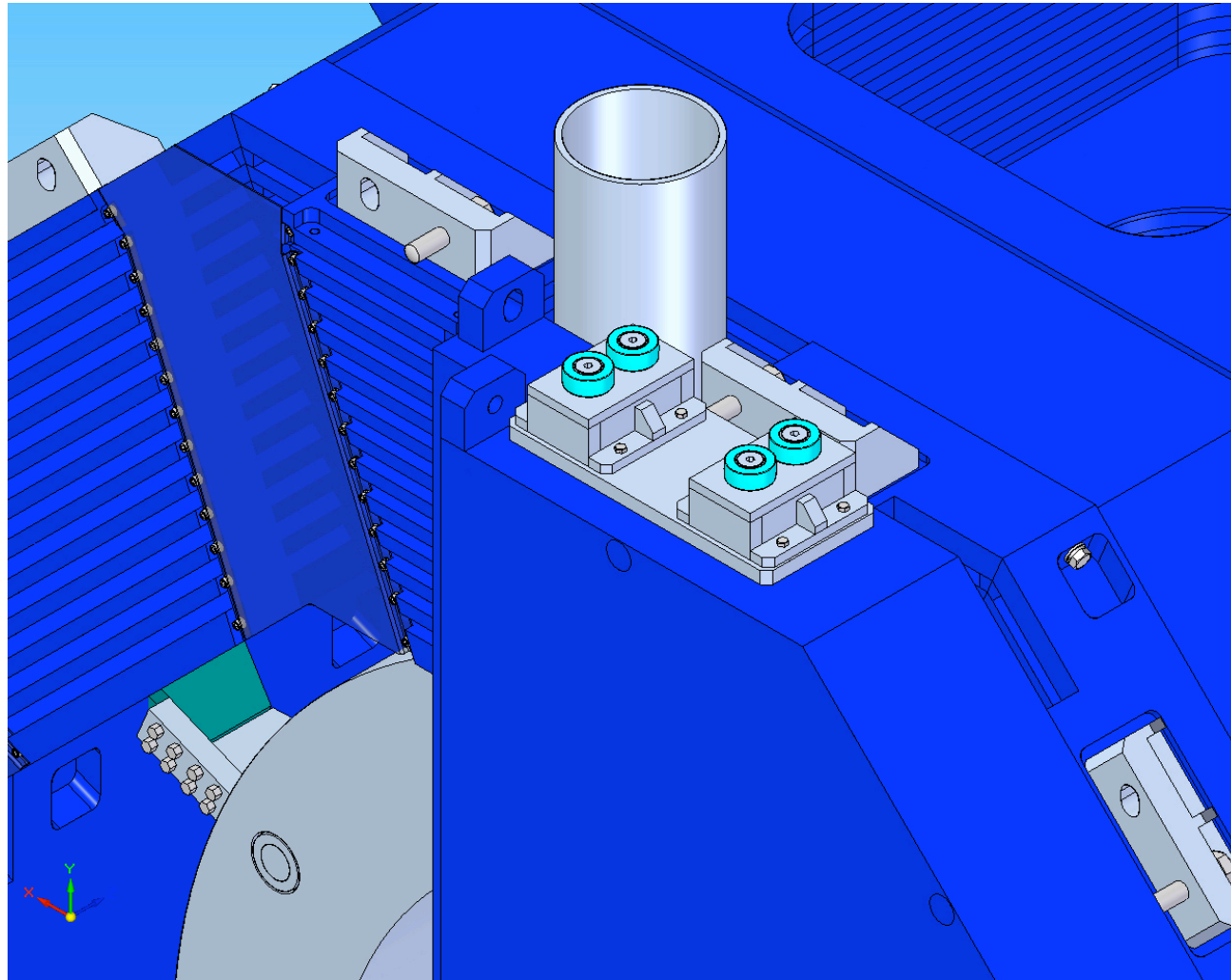
Solenoid top view (detail)



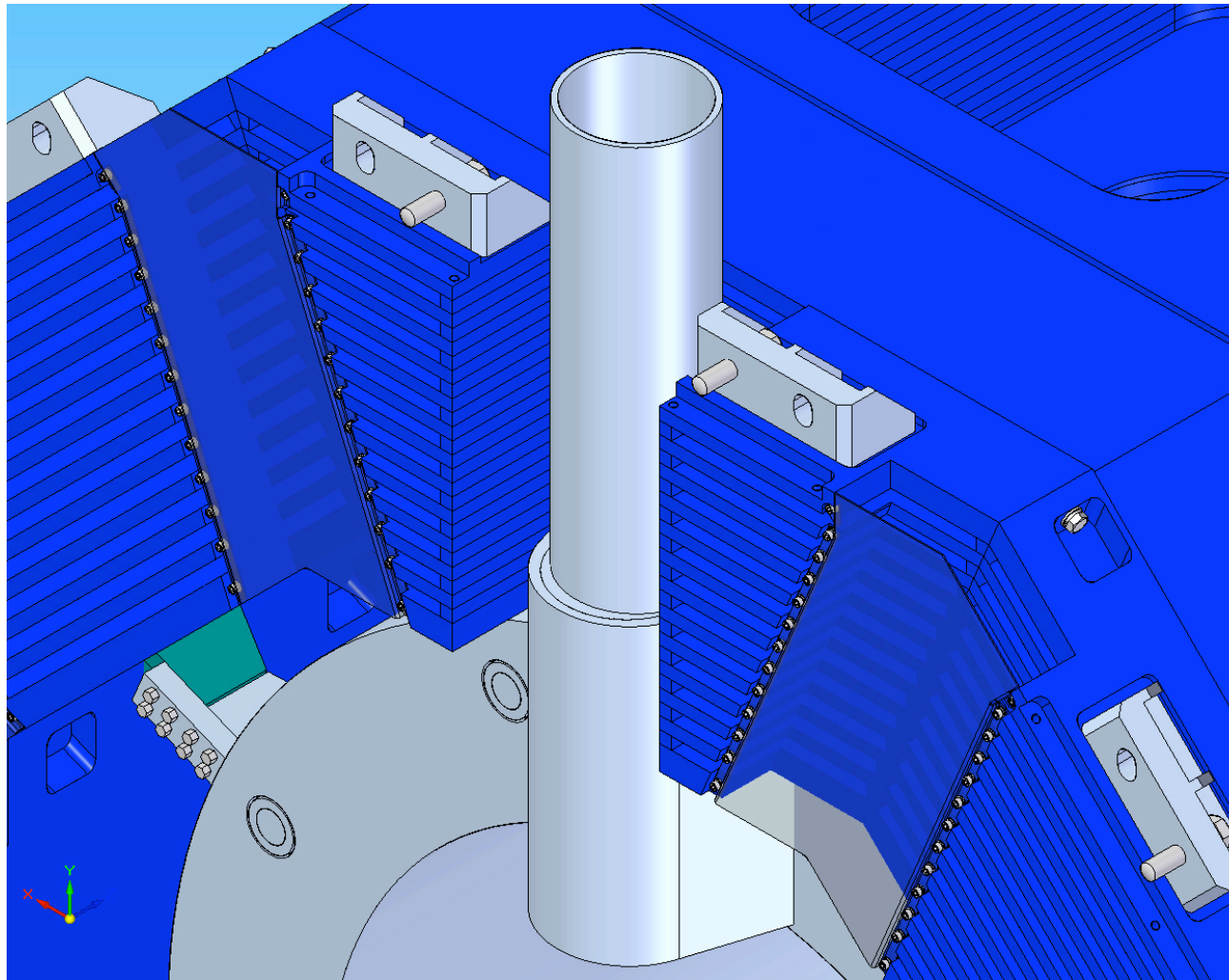
Yoke layout (detail)



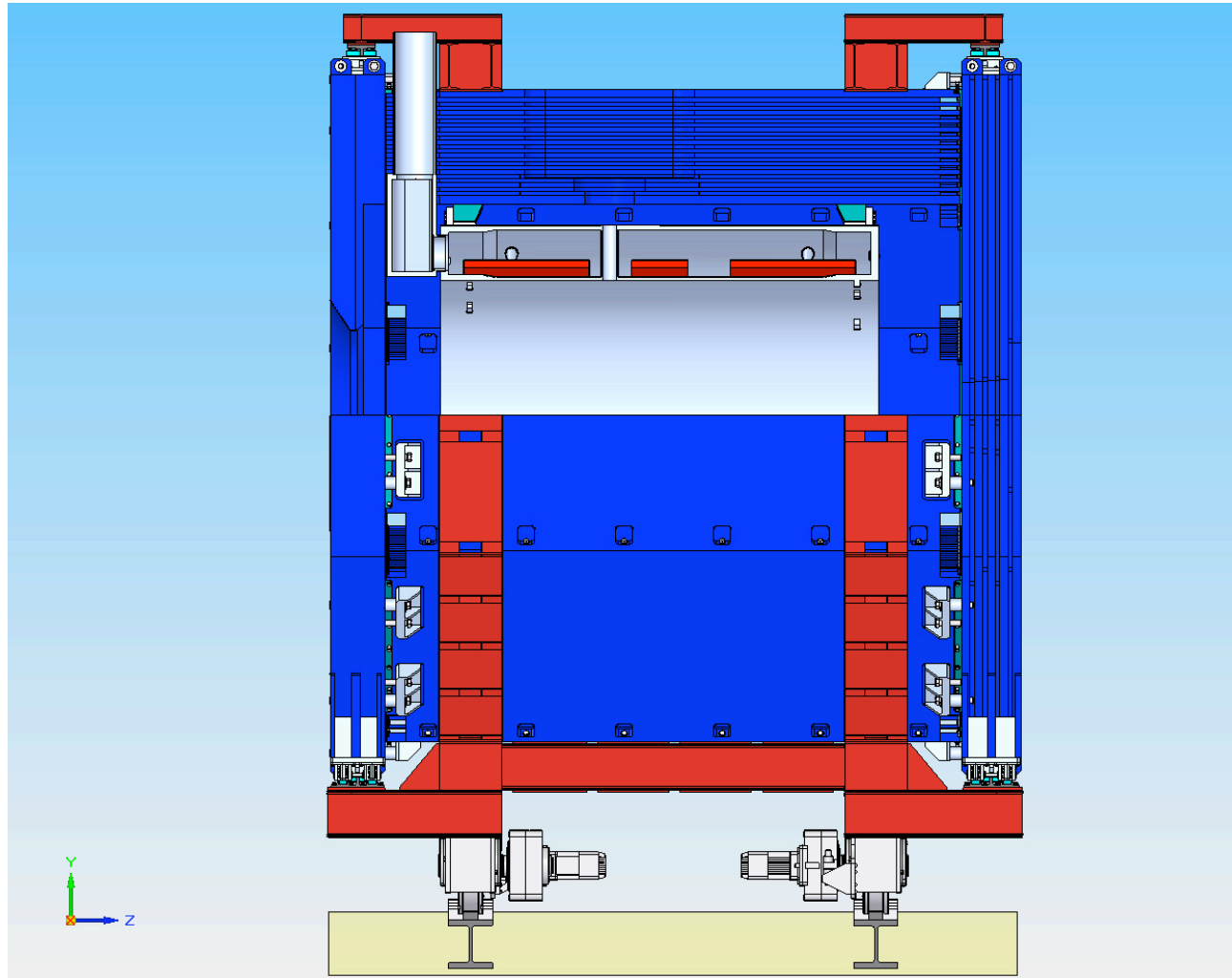
Yoke layout (detail)



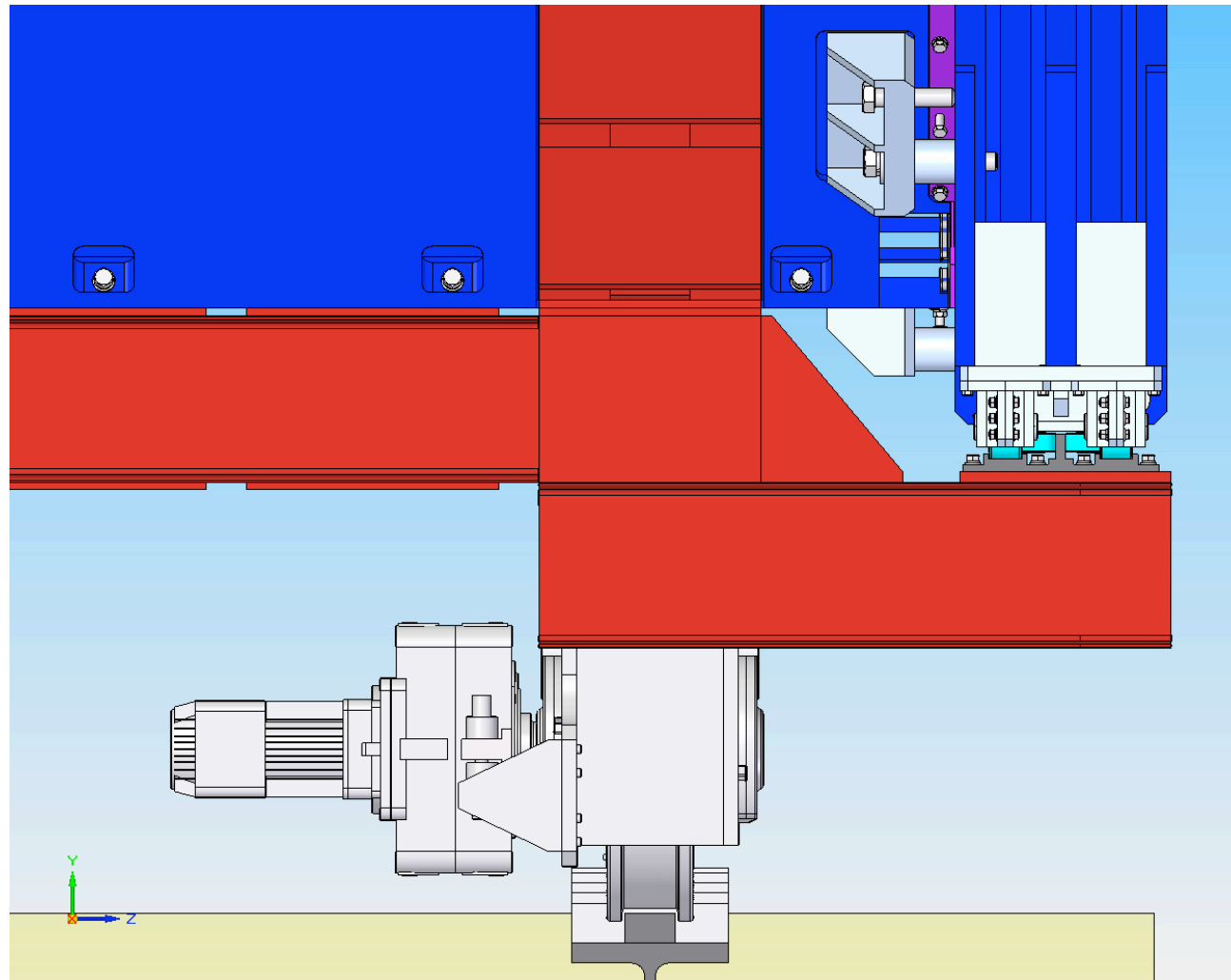
Yoke layout (detail)



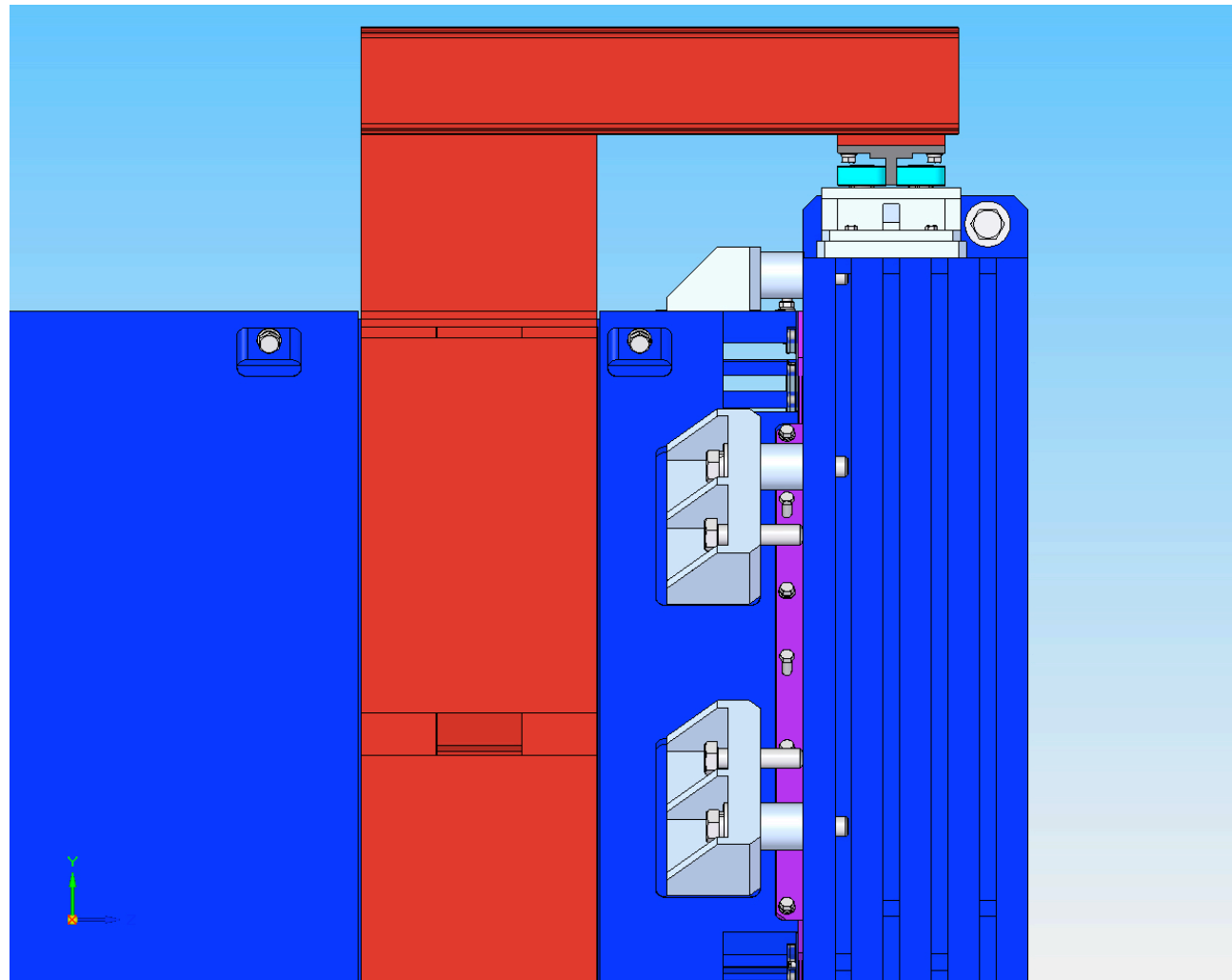
Solenoid side view



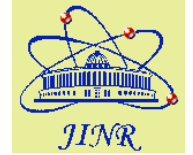
Solenoid side view (detail)



Solenoid side view (detail)



Summary



- The present design of the Flux Return Yoke meets the requirements of the magnetic field formation and the cryostat and detectors mounting
- The stresses in the Yoke are within the allowable limits
- Actual stresses and deformations in the Yoke and its Support System will depend on the design of the movable platform.
- The shape and dimensions of the recess in the lower beam of the Yoke are still not fixed; access to the target dump system should be foreseen
- The support system for the Barrel DIRC and its interference with the Yoke should be analyzed