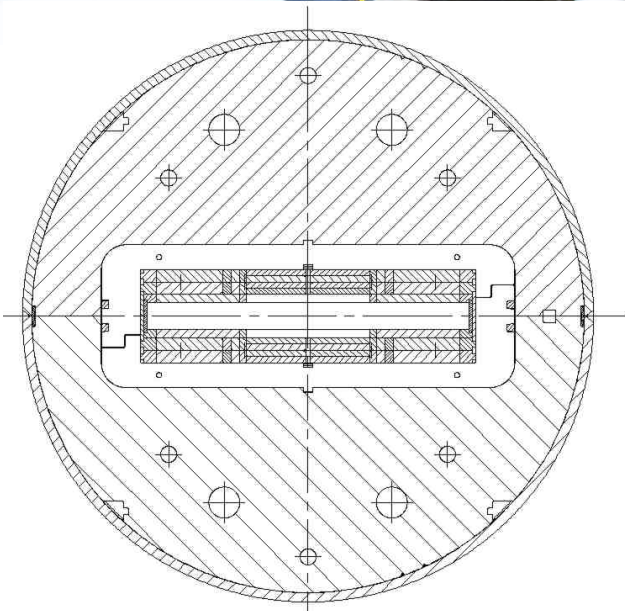


# Hybrid Magnet Test Opportunity



- A 20 T dipole will be a hybrid HTS/LTS magnet.
- We measure short sample in background field, which gives useful but not complete information.
- Testing of short coil in background field would give information on field quality (magnetization), and magnet operation, etc. That would provide feed back to machine physicists and to magnet designers.
- However, it is generally expensive and time consuming to do such coil tests in the background field of magnet.
- Fortunately, there is a possibility to commission such a facility where an HTS coil can be tested as somewhat similar to testing the short sample.
- The 10+ T  $\text{Nb}_3\text{Sn}$  magnet shown on the right has large open space for insert coil testing (~200 mm wide and ~30 mm high) without opening it for fast turn-around.
- This should play a useful role in FCC magnet R&D.
- The HTS coil becomes a part of the hybrid test magnet.