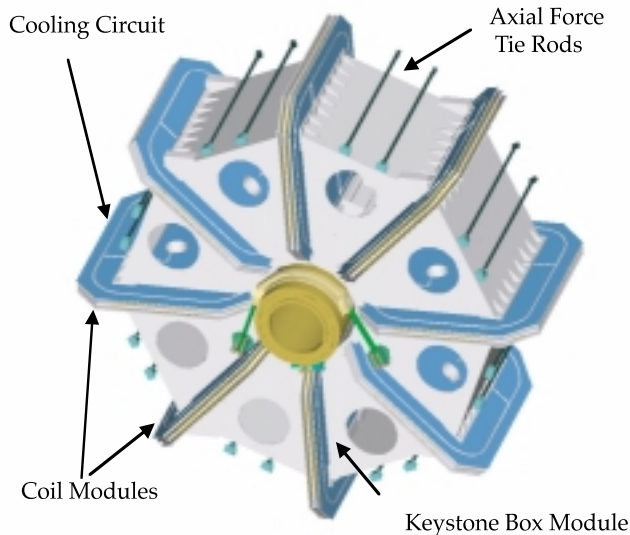
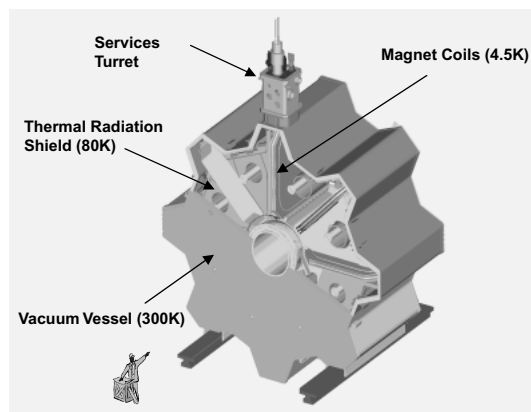


# End-Cap Toroids

Two End-Cap Toroids (ECT) are inserted in the Barrel Toroid, one at either end. Each consists of eight racetrack coils with two double pancakes wound directly in an aluminium casing. Each ECT is mounted in a single vacuum vessel supported by two rails. A castellated aluminium thermal shield with a 60 K helium gas cooling circuit and superinsulation layers surround the cold mass. All services are connected through a service turret mounted on top of the vacuum vessel.

## Parameters

- 1.65 m bore
- 10.7 m diameter
- 5 m length
- 8 coils
- 250 MJ stored energy
- 160 tons cold mass
- 239 tons weight
- 4.1 T on superconductor
- 26 km Al-NbTi conductor
- 5 T @ 65 kA critical current
- 4.1 T @ 20.5 kA operating current



Half shell in production



ECT vacuum vessel



Impregnated coil



Coil winding