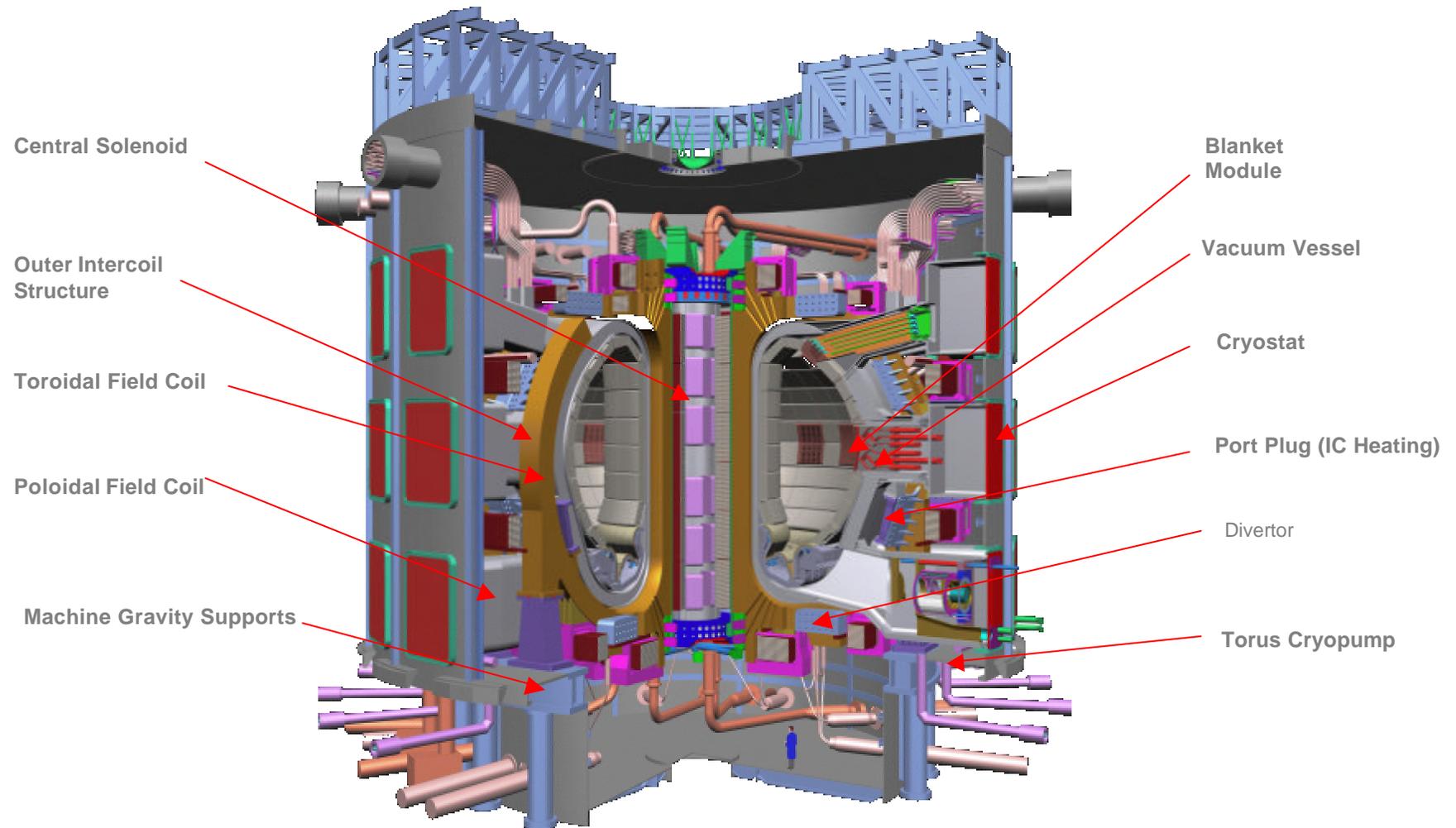
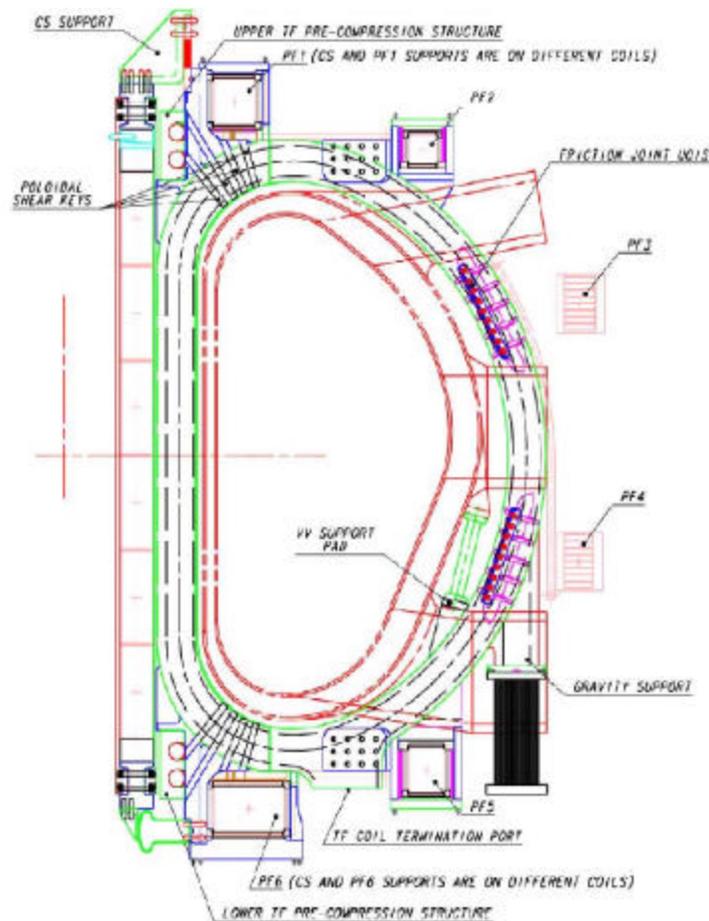




Design - Main Features

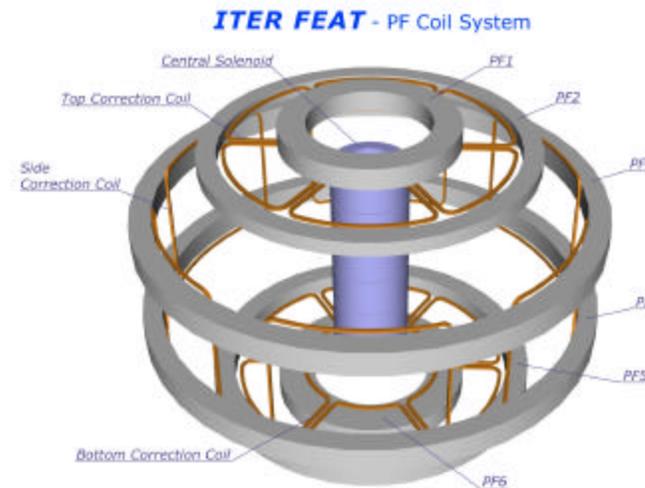


Design - Magnets and Structures (1)



Superconducting. 4 main subsystems:

- 18 toroidal field (TF) coils produce confining/stabilizing toroidal field;
- 6 poloidal field (PF) coils position and shape plasma;
- a central solenoid (CS) coil induces current in the plasma.
- correction coils (CC) correct error fields due to manufacturing/assembly imperfections, and stabilize the plasma against resistive wall modes.

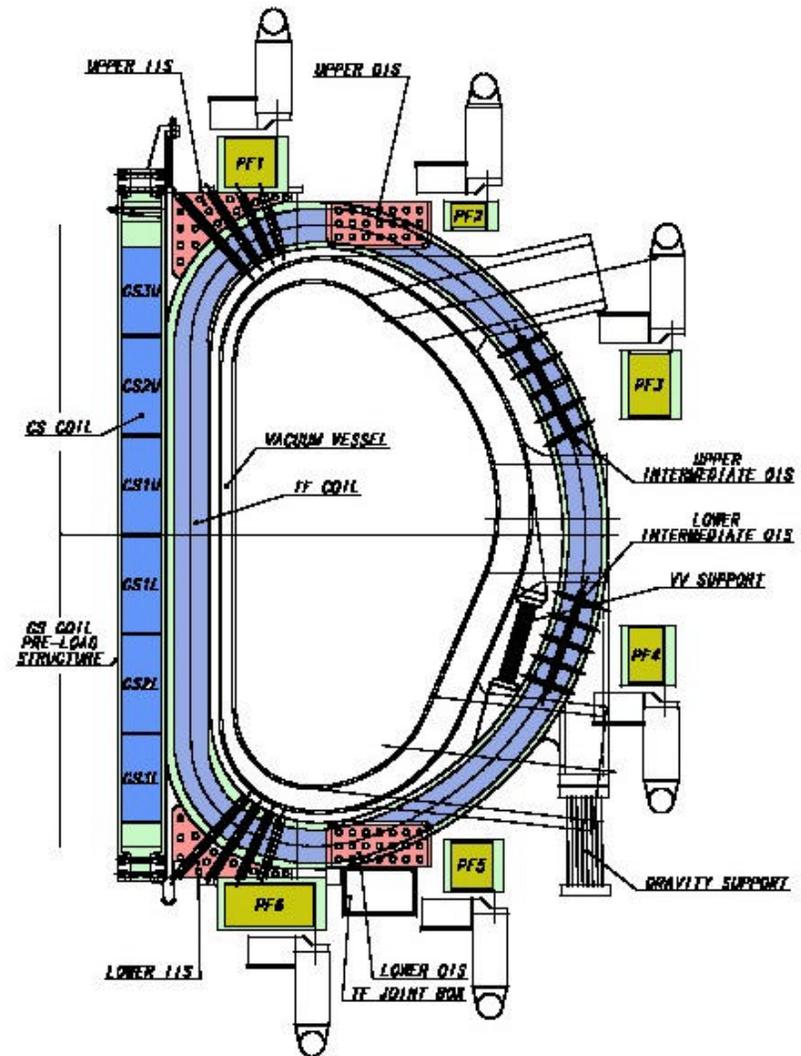




ITER Magnets

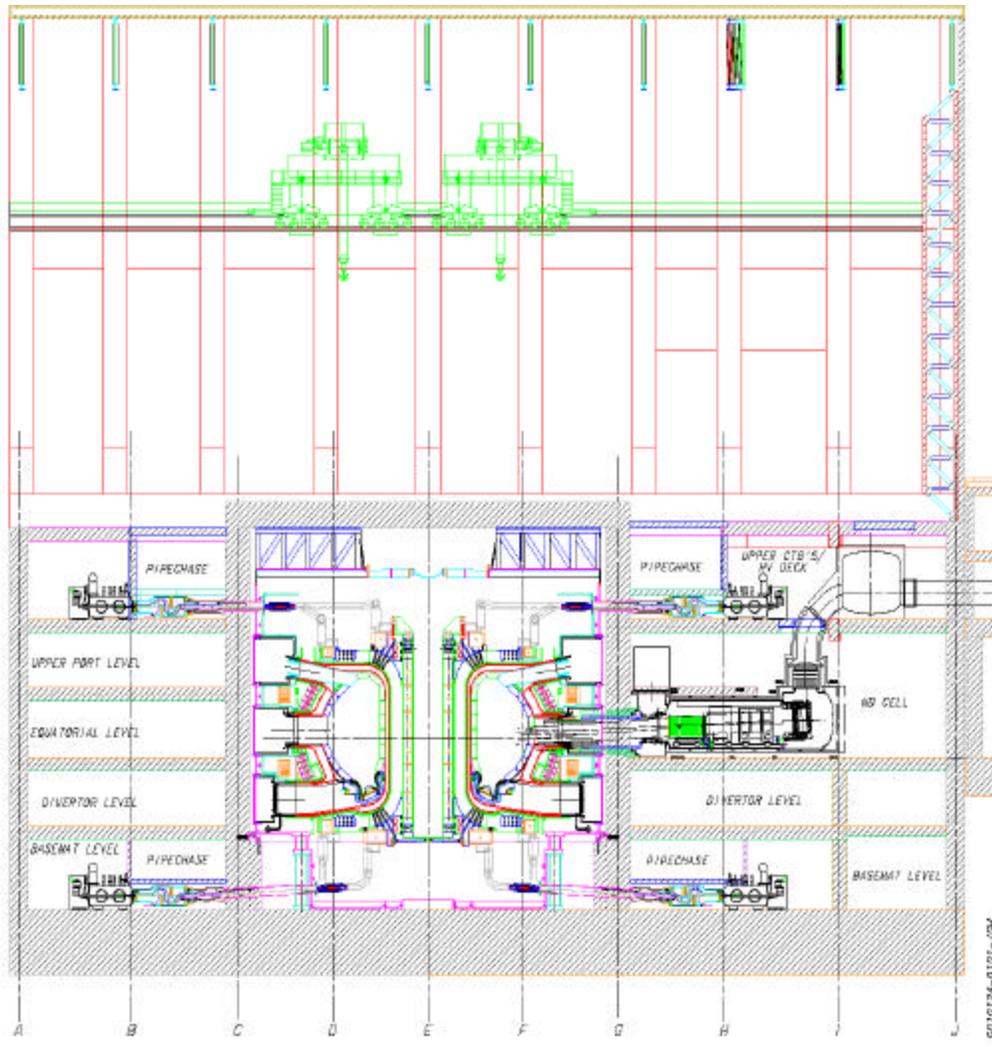
Overall Magnet System Parameters

Number of TF coils	18
Magnetic energy in TF coils (GJ)	~ 41
Maximum field in TF coils (T)	11.8
Centering force per TF coil (MN)	403
Vertical force per half TF coil (MN)	205
TF electrical discharge time constant (s)	11
CS peak field (T)	13.5
Total weight of magnet system (t)	~ 9,000



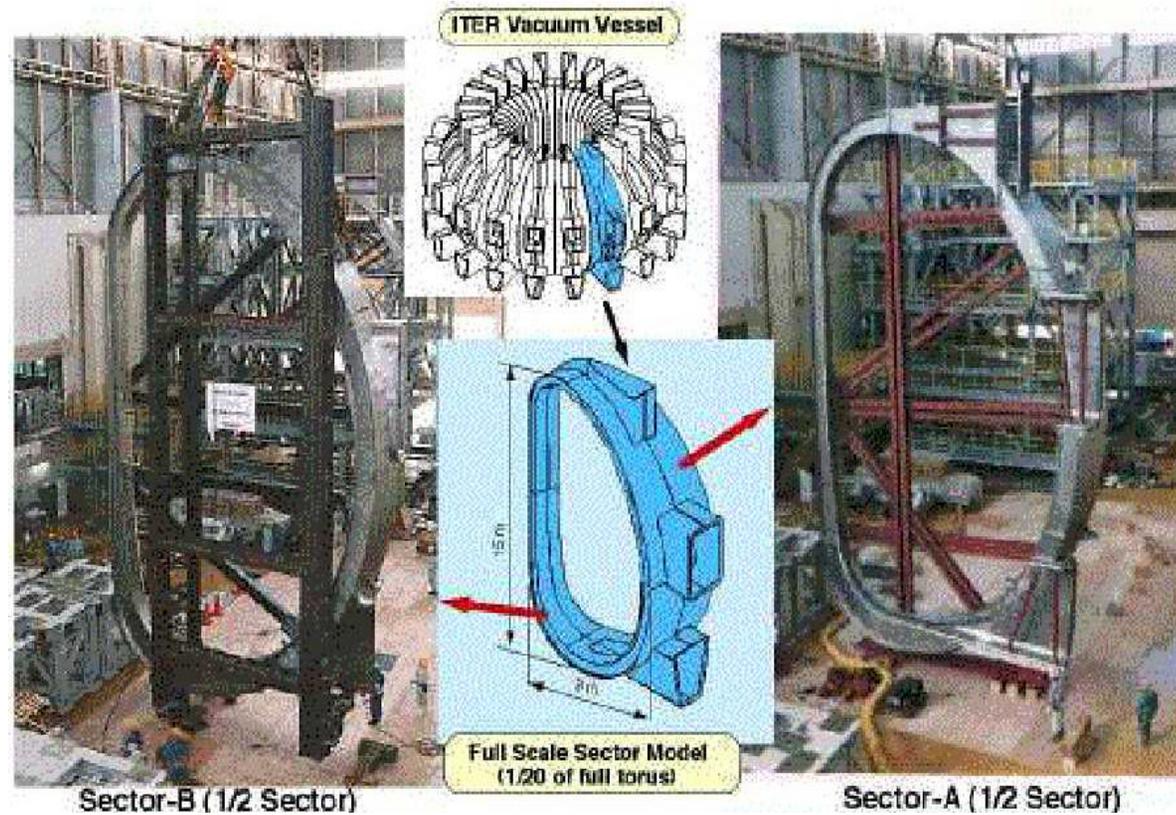


Design - Tokamak Building



- Provides a biological shield around cryostat to minimize activation and permit human access.
- Additional confinement barrier.
- Allows (with HVAC) contamination spread to be controlled.
- Provides shielding during remote handling cask transport.
- Can be seismically isolated.

R&D - Vacuum Vessel (L-3)



View of full-scale sector model of ITER vacuum vessel completed in September 1997 with dimensional accuracy of ± 3 mm



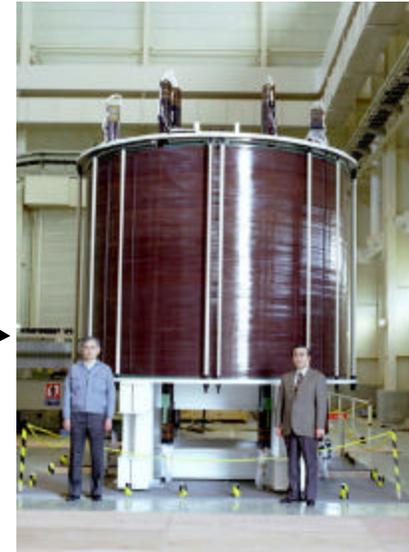
CSMC is Composed of 3 Coil Modules



CS Insert Coil (JA)



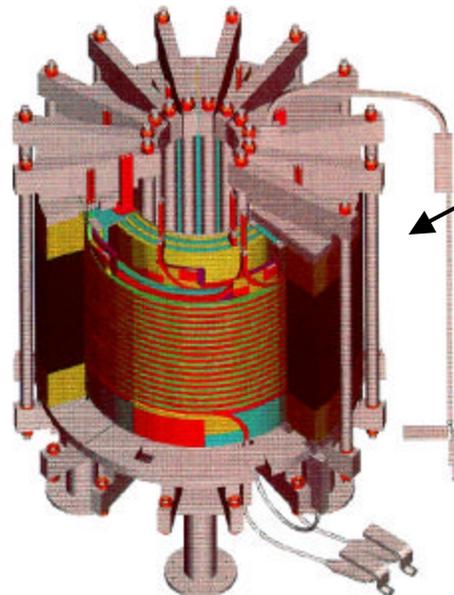
US Inner Coil Module



JA Outer Coil Module



Coil Assembly in Test Facility



Schematic Assembly of CSMC and Support Structure

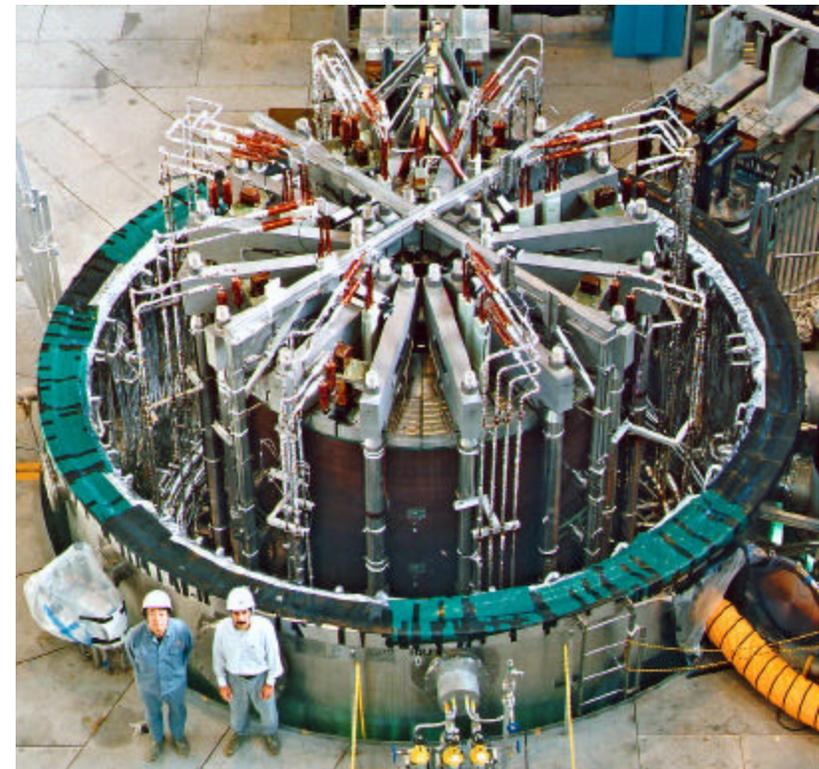


US CSMC Inner Module





Overview of Model Coil Test Facility at JAERI, Naka, Japan

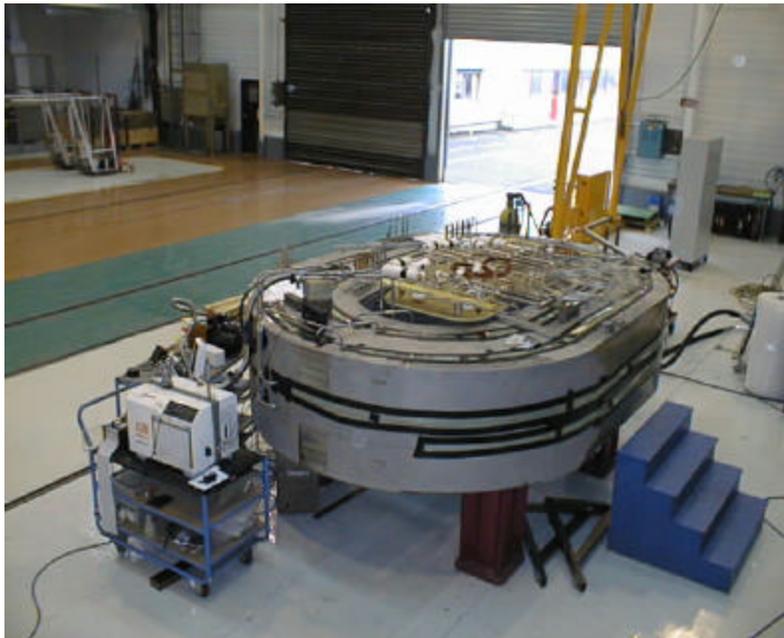


Coils assembled in the Vacuum Vessel



R&D - TF Model Coil (L-2)

The model coil has begun testing in the TOSKA facility at FzK, Karlsruhe, Germany



The coil under manufacturing at Alstom (France)



The TFMC at Toska Facility, FzK