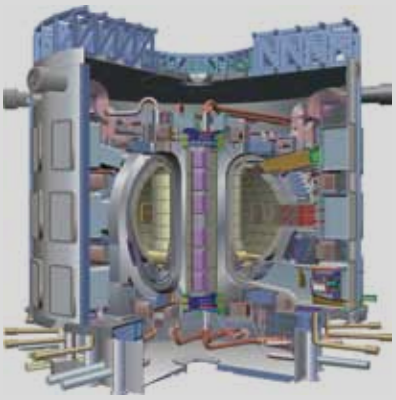
Green Energy

Experimental Nuclear Fusion Reactor



The International Thermonuclear Experimental Reactor (ITER) consists of a vacuum chamber, diverter, magnet support-structure, shielding blanket, feeding systems, and neutron diagnostic system. The total cost of the reactor is €4.6 billion and it will take ten years to complete. The first reactor should be completed in 2018 and will run for 20 years. Stainless steel was selected for many components of the ITER due to its inter-granular corrosion resistance, high tensile strength and low yield ratio, good fatigue resistance and fracture toughness. Stainless steel is one of the only materials that could meet regulatory requirements for the reactor's control mechanism and industry standards set by the American Society of Mechanical Engineers (ASME).

Location | CHINA
Environment | INDOOR
Product | HOT ROLLED STAINLESS STEEL
Fabrication process | ROLLING AND FORMING
Grade/surface | 316L/NO 1
Material thickness/diameter | 30 TO 300 MM THICK
Weight
Competing material
Date of Completion
Manufacturer
Material Supplier | TISCO
Source of Information | TISCO
Remarks