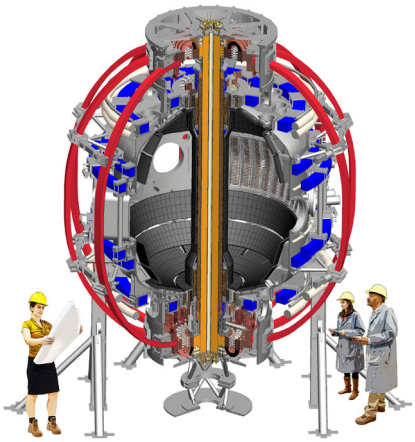
PPPL PRINCETON PLASMA PHYSICS LABORATORY

PRINCETON UNIVERSITY

U.S. DEPARTMENT OF ENERGY

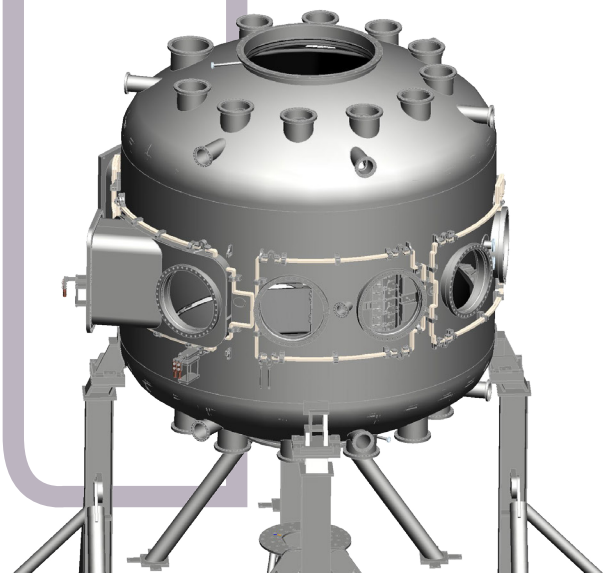
Components of the NSTX-U

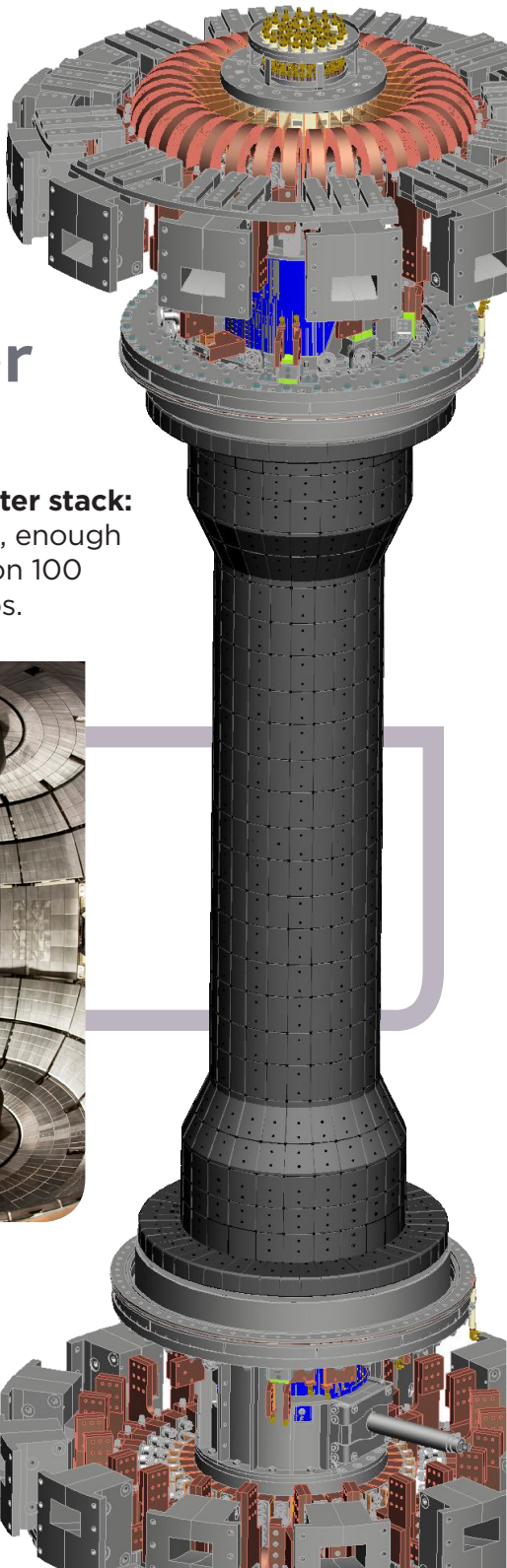


Height and weight of whole machine:
23.3 feet, 85 tons

Vacuum Vessel

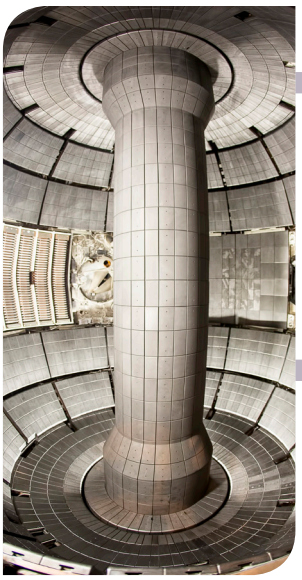
Overall diameter and vacuum vessel diameter:
16.6 feet, 11.2 feet





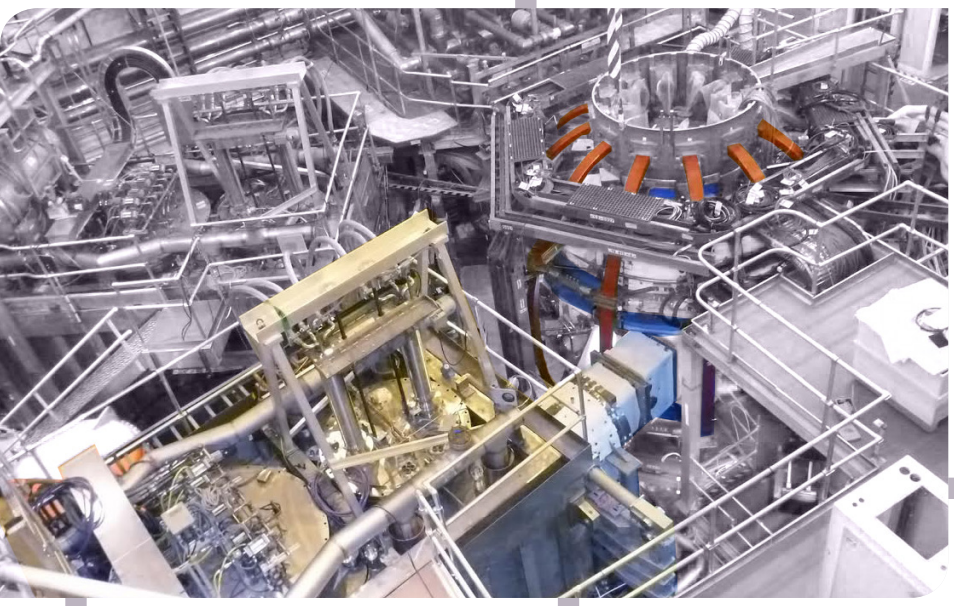
Center Stack

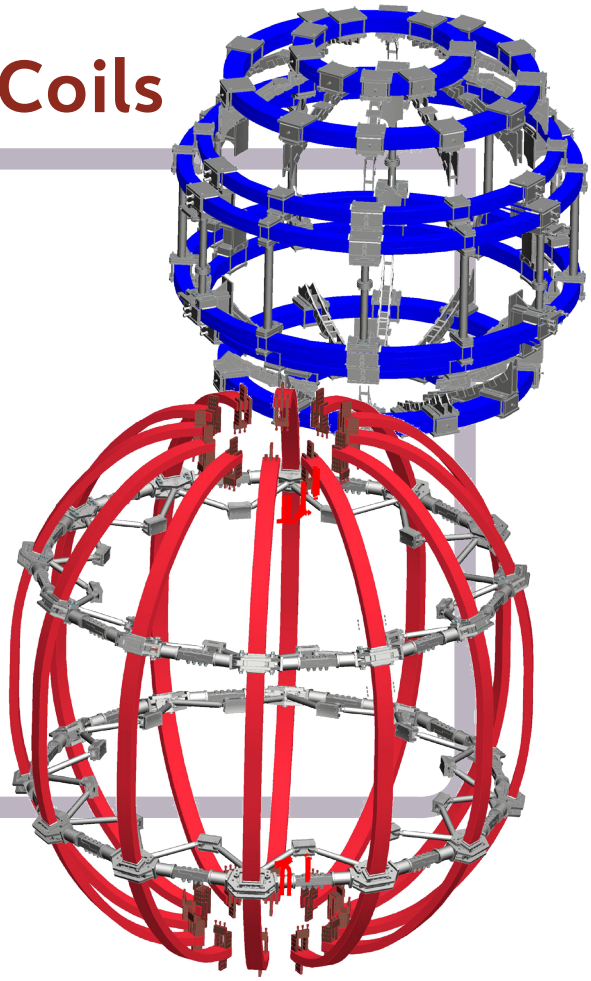
Current in center stack:
2 million amps, enough to light 2 million 100 watt light bulbs.



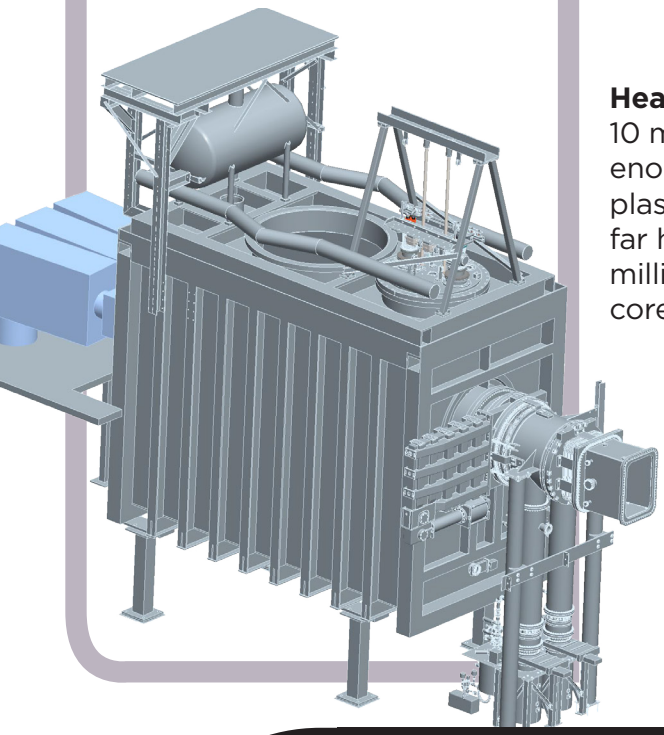
Poloidal Coils and Toroidal Coils

Magnetic field strength:
1 tesla, or 20,000 times the strength of the Earth's magnetic field





Neutral Beam



Heating power:
10 million amps, enough to produce plasma temperatures far hotter than the 15 million degree Celsius core of the sun.