

STATUS OF WENDELSTEIN 7-X CONSTRUCTION

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The WENDELSTEIN 7-X stellarator is the largest fusion experiment presently under construction in Germany. W7-X has the main objective to prove the reactor relevance of a stellarator, based on the HELIAS principle, as an alternative to the tokamak.

The main scientific aim of W7-X is the investigation of energy and particle confinement in an optimised magnetic configuration under stationary operation. The main technical objectives are to prove the possibility of a modular structure, stationary operation and the development of a reactor relevant divertor system. For the stationary operation the coil system for the magnetic field has to be superconducting.

Presently the project is in the phase of starting the assembly of the first two half modules out of ten. In parallel the manufacture of the components is still running. This manufacture is considerably delayed due to a number of technical problems which will also be of interest for the construction of the ITER device.

The paper will summarize the present status of the manufacture of the superconducting magnet system, its support structures, the components of the cryostat, the plasma facing components and the peripheral supply systems. The sequence of assembly will be outlined with special emphasis to the means which will be considered to obtain the necessary accuracy of the magnetic field. In addition the status of the start-up diagnostic will be given and first thoughts about the operational scenarios will be presented.