

Rosatom manufactures the key equipment for the under-construction Generation IV nuclear power unit

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Rosatom's Mechanical Engineering Divisions have manufactured key equipment that will act as the foundation for the Generation IV power complex, which is under construction in Russia. The 300 MW capacity power complex is based on the BREST-OD-300 fast reactor with lead coolant. The power unit is a part of the Pilot Demonstration Energy Complex (PDEC).

Six items, weighing more than 1,000 tons, were manufactured for the unit. The dimensions and shapes of the elements of the BREST-OD-300 reactor unit differ significantly from the VVER and the RITM reactor units, which have been mass-produced at Rosatom's Mechanical Engineering Division for many years. The products will operate at extremely high temperatures, necessitating the use of special steels with exceptional mechanical properties. These steels must withstand temperatures up to 600 degrees Celsius.

The reactor unit will be assembled on the construction site. In total, about 2,300 tons of equipment will be sent to the construction site from the enterprises of the Mechanical Engineering Division, and the total weight of the installation will be 16,000 tons, including concrete.