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Comments:

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Bring in the welders

The ITER Organization and the Spanish company Equipos Nucleares S.A. (ENSA) signed the contract for the welding of the ITER machine's nine vacuum vessel sectors and 54 port structures on Friday, 30 November. In addition to on-site welding and testing operations, the contract - which is worth EUR 74.5 million - includes the development of specialized welding and testing tools. More than 150 people, including highly skilled welding and testing personnel, are expected to be involved in the task to complete the field joint welding and testing on the ITER site over a time-span of four years.

china

eu

india

japan

ITER's vacuum vessel is a torus-shaped, double-walled structure made out of 60-mm-thick, ITER-grade austenitic stainless steel. The vacuum vessel will be manufactured in nine sectors (two by Korea and seven by Europe) and delivered to the ITER site. The nine vacuum vessel sectors will be sub-assembled with thermal shielding and toroidal field magnet coils before being positioned in the machine pit by crane.

Each vacuum vessel sector must be aligned and welded to the other sectors using a Narrow Gap TIG (Tungsten Inert Gas) welding process. Welding will proceed by triplets: three sectors will be welded together to form a triplet; three triplets will then be aligned and

