

COMPLETION OF THE FIRST TF COIL STRUCTURE OF ITER

The first ITER Toroidal Field Coil Structures (TFCS) has been successfully completed by Japan Domestic Agency (JADA) in Japan and Korea. There were 5 major challenges for the TFCS fabrication;

- (i) New materials
- (ii) Partial penetration welding (PPW),
- (iii) Welding deformation control,
- (iv) Specialized ultrasonic testing (UT)
- (v) Fitting the large (16m x 9m) complex D-shaped structure within tolerances of 0.5 mm.

This paper describes these challenges and solution established during fabrication and how to implement to the ITER TFCS.



(a) EU01 Fitting test



(b) JA01 Fitting test

First completion of ITER TFCS (AU and BU Fitting Test)