



MT 26
International Conference
on Magnet Technology
Vancouver, Canada | 2019

Contribution ID: 867

Type: **Contributed Oral Presentation**

Fri-Mo-Or26-02: Progress on European ITER Toroidal Field Coil procurement: Cold Test and Insertion Work Package

Friday, 27 September 2019 08:30 (15 minutes)

The plasma confinement of the International Tokamak Experimental Reactor (ITER) is provided by the magnetic field generated by 18 toroidal field coils (TFC). Fusion for Energy, the European Domestic Agency for ITER, is responsible for the supply of 10 TFC to ITER project.

Their procurement has been divided in three main work packages: I) the production of the radial plates, structural stainless steel components housing the Nb₃Sn conductors, II) the manufacture of 10 Winding Packs (WP) and III) the cold test of 10 WP plus their insertion into the Coil Cases (CC).

This article gives an update of the status of the production of third and last work package performed under the framework of a F4E contract assigned to SIMIC SpA, an Italian company.

In particular the details of the WP thermal cycle, the insertion of the first TF coil in their coil cases, the closure weld, the gap filling and the machining strategy adopted to optimize the final TF coil shape optimized to minimize the field errors are presented.

Primary authors: BELLESIA, Boris (Fusion for Energy); APRILI, Piergiorgio (Fusion for Energy); BONITO OLIVA, alessandro (F4E); JIMENEZ, Marc (Fusion For Energy); Mr LO BUE, Alessandro (Fusion for Energy); Mr VILADIU, Eduard (Fusion for Energy); Mr BARBERO, Paolo (SIMIC S.p.A.); Mr BOLLA, Marco (SIMIC S.p.A.); Mr ROBERTO, Francone (SIMIC S.p.A.)

Presenter: BELLESIA, Boris (Fusion for Energy)

Session Classification: Fri-Mo-Or26 - Fusion VIII: ITER