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## ITER PF6 Dummy Double Pancake Winding

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The Poloidal Field (PF) coils are one of the main sub-systems of the ITER magnets. The PF6 coil is being manufactured by the Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP) as per the Poloidal Field coils cooperation agreement signed between ASIPP and Fusion for Energy (F4E). The ITER PF6 winding pack is composed by stacking of 9 double pancakes. Dummy double pancake fabrication will be implemented to qualify the critical fabrication processes, before series production.

This paper describes the ITER PF6 dummy double pancake winding with a “two-in hand” configuration. Conductor de-spooling, straightening, ultrasonic cleaning, sandblasting, bending, turn insulation wrapping and deposition were carried out through the whole winding process. Joggles forming with high accuracy, helium inlets manufacturing with automatic welding and x-ray test, tail manufacturing with on-line assembly and PAUT test were performed. High synchronization of each unit in one line and between two lines were achieved. Tight tolerances of turn positioning and deviation between turns were obtained. The dummy double pancake winding has been completed with radial build-up deviation of 1mm, which met the requirement of less than 3mm.

### Eligible for student paper award?

Yes

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