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P3.090 Manufacturing status of ITER PF6 double pancakes

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The Poloidal Field (PF) coils are one of the main sub-systems of the ITER magnets. The Fusion for energy (F4E) is in charge of supplying 5 Poloidal field coils (PF2-PF6) as in-kind contributions to ITER project. In 2013, F4E commissioned the task of PF6 coil fabrication to Institute of Plasma Physics Chinese Academy of Sciences (ASIPP). The PF6 coil consists of 9 double pancakes (DPs). Before starting production of the DPs, Small- and full-scale trials are being performed to demonstrate and optimize fabrication procedures, as well as proving the stability of the fabrication tooling system. From 2017 the first DP for production was launched. So far, 7 of 9 DPs have been wound and 4 of 9 DPs impregnated. Measurement accuracy of 0.05% was applied in conductor forwarding control and ± 0.5 mm radial build-up for each turn were achieved, which demonstrated good winding performance. DPs were fully impregnated and the flatness of 1.5mm and profile of ± 3 mm were obtained, which passed AC/DC high voltage test afterwards. The final position of DP terminations after the joint boxes installation were within the tolerance of 3mm. Above results reflects good progress on PF6 DP fabrication at ASIPP premises .

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