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The process design of the forced-flow cooled for CFETR CS model coil

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Superconducting magnet of Central Solenoid (CS) model coil of China Fusion Engineering Test Reactor (CFETR) is made of Nb₃Sn/NbTi cable-in-conduit conductor (CICC), and operated by forced-flow cooling with a large amount of supercritical helium. The cryogenic circulation pump can be effective to achieve the supercritical helium (SHe) circulation to the forced-flow cooled (FFC) cable-in-conduit conductor (CICC) magnet. A distribution system will be constructed for cooling the CFETR CS model coil. This paper presents the design of FFC process for the CFETR CS model coil.

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