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## Cryostat design for HTS conductors test in the field of 19.5 T @200 mm bore

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A HTS conductors test facility can be inserted in a 19.5 T @200 mm bore resistive magnet and operating temperature ranges from 4.5 K to 50 K with current up to 100 KA is under design. A superconducting transformer with a 200 A primary winding composed of immersion cooled NbTI conductors and a 100 kA secondary winding composed of force-flow cooled CICC as the current supply for HTS sample. Helium can be warmed up to 50 K by heaters to cool the HTS sample to the test temperature. A HTS adapter connects the HTS sample under test and the secondary winding and limits the heat flux between them. Details of the cryostat and its performance are described.

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