

## **Development of a Zero Boil-off Helium Cryostat for superconducting magnets**

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This paper describes a horizontal type cryostat of a superconducting magnet with a 300mm room temperature bore. The magnet, with the diameter of 400mm and length of 815mm, is immersed in 30 liter liquid helium. Design consideration, including thermal staging of the silver/Bisco current leads, low thermal conduction mechanical support structure, and the theoretical calculation of heat load to the cryostat are discussed. And only a helium recondensing G-M cooler(40W at 50K, 1.5W at 4.2K) is used to achieve zero boil off.