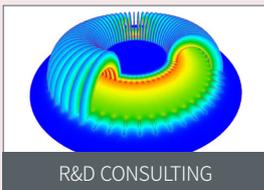


Supercoil Co., Ltd.

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Address	Building no. 84. 20, Changwondaehak-ro, Uichang-gu, Changwon, Gyeongsangnam-do, Republic of Korea		
major business	High-Temperature Superconducting Magnets, MgB2 Magnet and their R&D consulting, MAGHEET		

Supercoil Co., Ltd. is a professional manufacturing company with R&D consulting of superconducting application machineries based on superconducting magnet engineering technologies such as superconducting induction heater and permanent magnet induction heater, etc. We have various design technologies including electromagnetic, heat transfer, structural design and analysis as well as manufacturing and performance test of superconducting magnets to operate on the cryogenic condition. Recently, MgB2 superconducting magnets was developed and tested successfully at the world first. We hope to be a key company for the future industries with an eco-friendly, high energy efficient, state of the art technologies.

Products



R&D CONSULTING

Use Superconducting Magnet design and R&D consulting with multiple physical analysis tools
Description Electromagnetic FEM model development of various superconducting magnets
 Design of heat transfer analysis FEM model for the cryogenic cooling condition
 Structural design by considering electromagnetic force of magnets
 Total solutions based on multi-physics analysis available for electromagnetic, thermal and structural analysis at the same time
 Design and fabrication of High current superconducting leads



Superconducting Magnet

Use Thermal spray coating powder
Description Cryogenic property measurement system(available magnet size: D1.5m x H1.6m) for superconducting magnets
 3 T HTS magnet for superconducting induction heater(Iop= 540A @ 10K, L1247mm x H622mm x 57mm)
 3 T MgB2 magnet for superconducting induction heater(Ic=330A @ 10K, L1353mm x H730mm x 76mm)
 Multi-purpose winding machine(Max. Dia. 2m, max. tensile force; 100 kgf)



MAGHEET(Superconducting induction heater)

Use MAGHEET(Superconducting induction heater, Permanent magnet induction heater)
Description Heating for various metals(Fe, SUS, Al, Cu, Ti alloy etc.) maximum 1300°C with over 90% energy efficiency
 Superconducting magnet type and permanent magnet type
 Rotating billet type and rotating magnet type

Technical Capacity

» Superconducting Magnet Design

Design and development of the electromagnetic and heat transfer and structural FEM model Total solutions based on multi-physics FEM analysis available

» System Design and Development Technologies of superconducting application machineries using superconducting magnets

System design and manufacturing technologies such as a superconducting induction heaters, superconducting motors' and generators' field coils and coil guns

» Manufacturing Technologies for HTS and MgB2 superconducting magnets

A multipurpose winding machine for the production of small and large sized superconducting magnets Cryogenic property measurement system for performance test of superconducting magnets

» Excellent technical NETWORK

Having a close network of experts in companies, research institutes, and universities related to superconducting technologies