Carpenter Technology Bridges Gap with New Soft-Magnetic Alloy

October 4, 2016

New Alloy Supports Electrical Steel Need for Expanding Motor Market

WYOMISSING, Pa. – October 4, 2016 – Carpenter Technology Corporation (NYSE: CRS) today announced the development of a new soft-magnetic alloy, CARTECH® HYPOCORE™ alloy, which offers performance benefits between those found in Carpenter's high performance high cobalt content magnetic materials, CARTECH HIPERCO® family alloys, and commercial silicon-based alloys. Carpenter's soft magnetic materials are used in critical applications across multiple key markets.

As compared to CARTECH HIPERCO family alloys, this new electrical steel alloy can provide lower core loss. Compared to Si steels, the alloy provides higher induction, even at a low applied magnetic field. Additionally, the alloy can be used at higher frequencies with less heat generation. CARTECH HYPOCORE alloy exhibits a unique combination of properties such as low coercivity, high permeability, and high electrical resistivity, which makes motors and generators operate more efficiently. This new material offers potential benefits to next generation electrical machines and electromagnetic devices such as laminations or assembled cores for small machines where increased efficiency and size reduction is important.

Initial manufacturing is already underway and material is available upon request at different sheet thicknesses (from 0.005" to 0.025") for testing and prototyping purposes. Carpenter can also support commercial orders. Please call 610-208-2000 for additional information.

Dr. Chins Chinnasamy, Principal Metallurgist – R&D, will be presenting information about the development of this new alloy at the Coil Winding Insulation and Electrical Manufacturing Exhibitions and Conferences (CWIEME) in Rosemont, IL, USA on October 4-6, 2016. Carpenter will be exhibiting at booth J52.

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About Carpenter Technology

Carpenter Technology Corporation is a leading producer and distributor of premium specialty alloys, including titanium alloys, powder metals, stainless steels, alloy steels and tool steels. Carpenter's high-performance materials and advanced process solutions are an integral part of critical applications used within the aerospace, transportation, medical and energy markets, among other markets. Building on its history of innovation, Carpenter's superalloy powder technologies support a range of next-generation products and manufacturing techniques, including additive manufacturing or 3D Printing. Information about Carpenter can be found at www.cartech.com.