

New HVAC Coil Designs Benefit from Smaller Diameter Copper Tubes

Improved Heat Transfer Allows for High Efficiency HVAC Designs in Compact Package

New York, NY (July 15, 2010) — The International Copper Association (ICA) today announced a new heat exchanger coil technology that benefits from smaller diameter copper tubes. The new product designs and associated manufacturing processes are a culmination of years of research.

Heat transfer from the refrigerant to the tube wall is more effective inside copper tubes with diameters smaller than the conventional diameter. Consequently, coils can be made less bulky and air conditioners with higher energy efficiency can be made smaller and lighter.

“It is true that highly efficient air conditioners currently are being made with conventional copper tubes,” says Nigel Cotton, Global Leader of OEM Initiative for ICA, “but smaller diameter tubes offer inherent advantages, including lower overall costs, less weight and reduced refrigerant charge.” According to Cotton, heat exchanger coils have been designed, developed and manufactured using copper tubes of various small diameters.

Cotton says, “The trend toward smaller diameter copper tubes is not surprising. The technology is proven. The manufacturing is based on familiar fabrication processes and assembly techniques. Although various amounts of minor retooling may be required before tube suppliers can make small diameter tubes, the manufacture methods for making coils from fins and tubes are simple, practical and economical.”

Coils made of conventional copper tubes are a proven technology with a long, successful, field-tested history. The new coils provide the high durability and performance that is expected from copper tubes but they use less raw material.

About ICA

The International Copper Association, Ltd. (ICA) is the leading organization for promoting the use of copper worldwide. ICA’s mission is to promote the use of copper by communicating the unique attributes that make this sustainable element an essential contributor to the formation of life, to advances in science and technology, and to a higher standard of living worldwide. Visit www.copperinfo.com for more information about ICA.

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