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## **Europe's First Antimicrobial Copper Coil Air Handling Unit Launched**

The first Antimicrobial Copper coil air handling unit has been produced in Europe by French manufacturer Hydronic, in association with Centre d'Information du Cuivre-Laitons et Alliages (CICLA). This ground-breaking product harnesses the antimicrobial properties of copper with the goal of improving air quality in hospitals.

Consumers today are becoming more health conscious and, in a proactive response to this market trend, Hydronic's air handling units are Europe's first to be permitted to use the Antimicrobial Copper Cu+ mark. Everywhere air quality is essential, Hydronic's Antimicrobial Copper coil air handling units would respond perfectly and efficiently. These large-scale air-conditioning coils can vary from 300x600mm to 1,600x1,800mm, contain copper tubes of 12.7mm and 15.45 mm internal diameter, and handle an air flow between 300 m<sup>3</sup>/hour (0.1 m<sup>3</sup>/s) to greater than 130,000 m<sup>3</sup>/hour (36 m<sup>3</sup>/s).

HVAC system components operate in warm, dark, humid environments that are ideal breeding grounds for contamination that causes odours and can reduce system efficiency. Laboratory testing has shown that copper can inhibit the growth of these organisms. After 24 hours of exposure to copper surfaces, total elimination was observed in several common mould species, and the commonly-used aluminium had no effect on reducing fungal growth.

"Controlling the quality of air in healthcare units is at the heart of our strategy," explains Thomas Dupire, Product Manager for Hydronic. "Our air handling unit was designed to comply with air hygiene standards. Integrating Antimicrobial Copper into our products was the logical way to proceed. Moreover, these Antimicrobial Copper coil units have a better thermal efficiency, up to 8% higher than standard aluminium coil units."

In December 2010, the Chinese air-conditioning giant Chigo launched the world's first Antimicrobial Copper room air conditioner with the Cu+ mark. This new product pioneered a new trend towards healthier home appliances. Today, Hydronic manufactures the first large-scale Antimicrobial Copper coil air handling units in Europe, designed for off-shore, hospital, industrial and commercial applications.

This practical implementation builds on laboratory work by University of Southampton researcher Professor Bill Keevil, assessing the effectiveness of copper as an antifungal

surface for air-conditioning systems, and is a tremendous advance for both Antimicrobial Copper implementation, and innovation in HVAC.

For more information about copper's antimicrobial properties, the online product directory and installations from around the world, visit [www.antimicrobialcopper.org](http://www.antimicrobialcopper.org).



Hydronic's new air handling unit, bearing the Cu+ mark

#### **Editor's Notes:**

The use of the Antimicrobial Copper brand and Cu+ mark by an organisation indicates that a copper centre, on behalf of the International Copper Association, has granted permission to do so based upon adherence to strict usage rules. These rules guide that organisation's understanding of the underlying technology and the way they promote, advise and deploy it in line with existing research, regulatory and legislative requirements.

The latest published research into copper's efficacy against the spread of fungi in air conditioning systems appeared in Letters in Applied Microbiology:

*Potential for Preventing Spread of Fungi in Air-Conditioning Systems Constructed Using Copper Instead of Aluminium*

L Weaver, H T Michels, C W Keevil, Letters in Applied Microbiology

<http://www.ncbi.nlm.nih.gov/pubmed/19943884>

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