



**Pietro Galliani**  
centuries of metal foils

## HEAT EXCHANGERS

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# HEAT EXCHANGERS



## MAXIMIZE THE EFFICIENCY OF YOUR HEAT EXCHANGER

In the world of brazed plate heat exchangers, the choice of brazing material plays a crucial role in the system's efficiency and durability. Pietro Galliani Spa is now able to offer increasingly thinner copper foils, representing the ideal solution for maximizing heat transfer while maintaining a robust and long-lasting structure, without compromising performance.

### Why Choose Copper for Brazing?

- **Superior Thermal Conductivity:** Copper is renowned for its excellent heat conduction capabilities, ensuring that heat transfer is rapid and efficient, thus reducing operational costs.
- **Strength and Durability:** Our copper alloy, used in brazing processes, offers strong adhesion and cohesion between the plates, ensuring the mechanical strength of the entire exchanger.
- **Elimination of External Gaskets:** The brazing technique using our copper foils perfectly seals the joints between the plates, eliminating the need for external gaskets, which can degrade or lose effectiveness over time.
- **Product Portfolio:** The copper alloys ideal for these applications are characterized by being oxygen-free to enhance brazing performance, such as phosphorus-deoxidized alloys like PHC (EN CW020A, UNS C10300) and DHP (EN CW024A, UNS C12200) or oxygen-free alloys (EN CW008A, UNS C10200). Available in thicknesses ranging from 8 to 100 microns, on coils with various internal diameters: 76, 100, 120, 150, and 200 mm.

## Innovation in Insulation

In addition to copper, we offer ultra-thin aluminum foils, ideal for insulating the pipes connected to heat exchangers. These foils:

- **Improve Thermal Insulation:** They ensure effective insulation, reducing heat loss and enhancing the overall system efficiency.
- **Lightweight and Easy to Install:** Aluminum, a lightweight and flexible material, facilitates installation and maintenance, adapting perfectly to various designs and configurations.
- **Durable and Resistant:** They protect the pipes from external agents and mechanical stresses, prolonging the system's lifespan.

## Versatile Applications

Our materials are ideal for a wide range of industrial applications, including heat exchangers used in sectors such as HVAC, refrigeration, automotive, and more. Their versatility makes them suitable for new installations as well as the maintenance and upgrade of existing systems.

## Sustainability and Efficiency

By choosing our copper and aluminum foils, you opt for sustainable products that contribute to reducing the overall ecological footprint of the system. Our solutions not only improve efficiency but also promote longer life cycles and lower maintenance requirements.

## A Reliable Partner for Industrial Innovations

The collaborations with leading companies in the Heat Exchanger market has allowed us to develop thinner copper sheets (well below 50 microns) which allow the customer greater cost efficiency, thanks to the reduction of the quantity of copper, combined with high levels of performance.