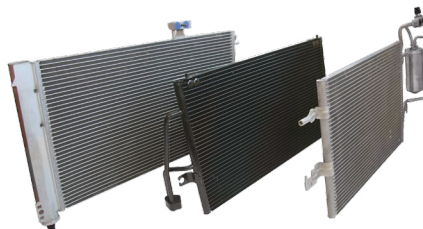
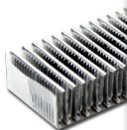


Since
1997



Climetal

Heat Exchangers

Microchannel Heat Exchangers • Quality made in Europe • **Go for aluminium!**

CONDENSERS • EVAPORATORS • HEATERS

www.climetal.com



Dear Customer,

In a mature industry as the heat exchangers manufacturing, I had a vision of a new type of company.

A company that would be responsive to its customers' needs. A company that would be flexible and efficient. A company that would provide its customers with:

- » Breakthrough technology.
- » Highest quality.
- » Excellent service and value.
- » Quick and superior engineering.
- » Short lead times and reduced logistic costs.
- » Production flexibility and reactivity.

After twenty years of experience, **CLIMETAL** has successfully developed an organization that will provide you with the best heat exchanger technology available, aluminium microchannel heat exchangers.

The introduction of our microchannel technology will make your products more competitive, energy efficient and environmentally friendly than ever.

But our role is not only to deliver a superior product to you, our customer. Our role is to assist you in the integration of this new technology in your systems. We have more than **15 years of experience** in the design and manufacturing of **microchannel heat exchangers** and we are ready to share it with you. Our engineering department will work hand in hand with you in order to integrate our advanced technology fast and smoothly in your design process.

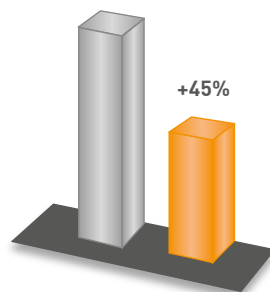
Let us share our vision with your company's vision. We are in a unique position to grow our company along with yours. We want to collaborate and consult with you in order to assist you in bringing the best products to market.

Sincerely,
Agustín Maiz

Looking for higher capacity, lighter
and smaller heat exchangers for your
A/C or heating systems?
**Aluminium microchannel heat exchangers
are your solution**

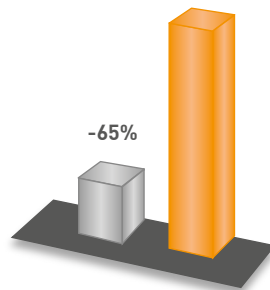
PERFORMANCE (Kw) RENDIMIENTO (Kw)

■ Climetal PF
■ Tube & Fin



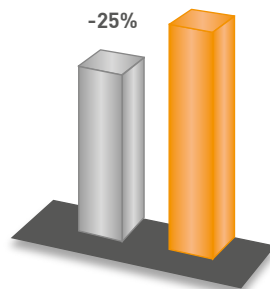
INTERNAL dP (kPa) dP INTERNA (kPa)

■ Climetal PF
■ Tube & Fin



AIR dP (Pa) dP AIRE (Pa)

■ Climetal PF
■ Tube & Fin



Advantages

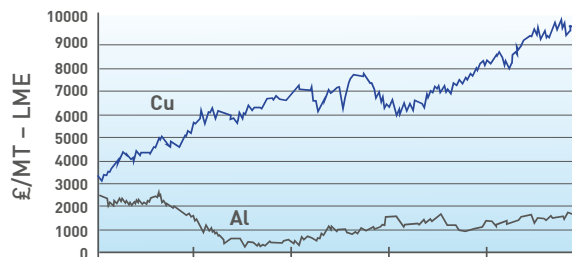
HIGHER PERFORMANCE

Climetal parallel-flow condensers offer a long list of features not found in other condensers. Parallel flow increases performance by up to 45% percent compared to traditional tube and fin condensers. Its special circuit design reduces internal pressure drop on the gas side by more than 40%, which produces significant savings in compressor energy consumption and weariness. Its slim design (6mm & 25mm thickness) and its thin cross flow tube profile decreases air pressure drop by 30% also bringing considerable advantages: smaller fans, less noise and lower electricity consumption.

LESS REFRIGERANT

The reduced dimensions of CLIMETAL's condensers will also allow you to decrease the amount of refrigerant used in your system by 50% and still increase performance, generating remarkable savings in your production process and in the future maintenance of the A/C unit.

COST SAVINGS



COPPER - ALUMINIUM PRICE EVOLUTION

Integration in existing systems

Aluminium heat exchangers can be easily integrated in your actual systems. Climetal offers several solutions, like copper-aluminium brazing or mechanical oring fittings. Compatible with most refrigerants, including AMMONIA.



Copper Alu brazed connection



Mechanical fitting

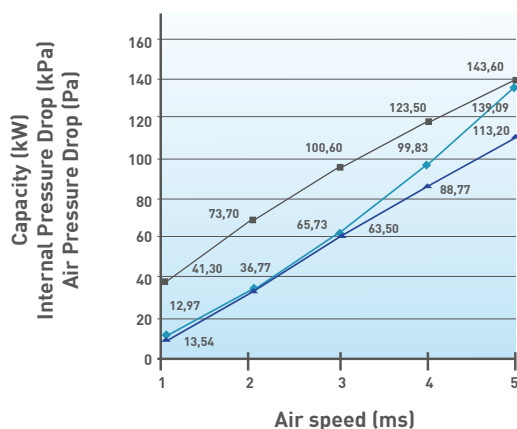


Modular solution

(Photo provided by Geoclima)

Capacity calculation example

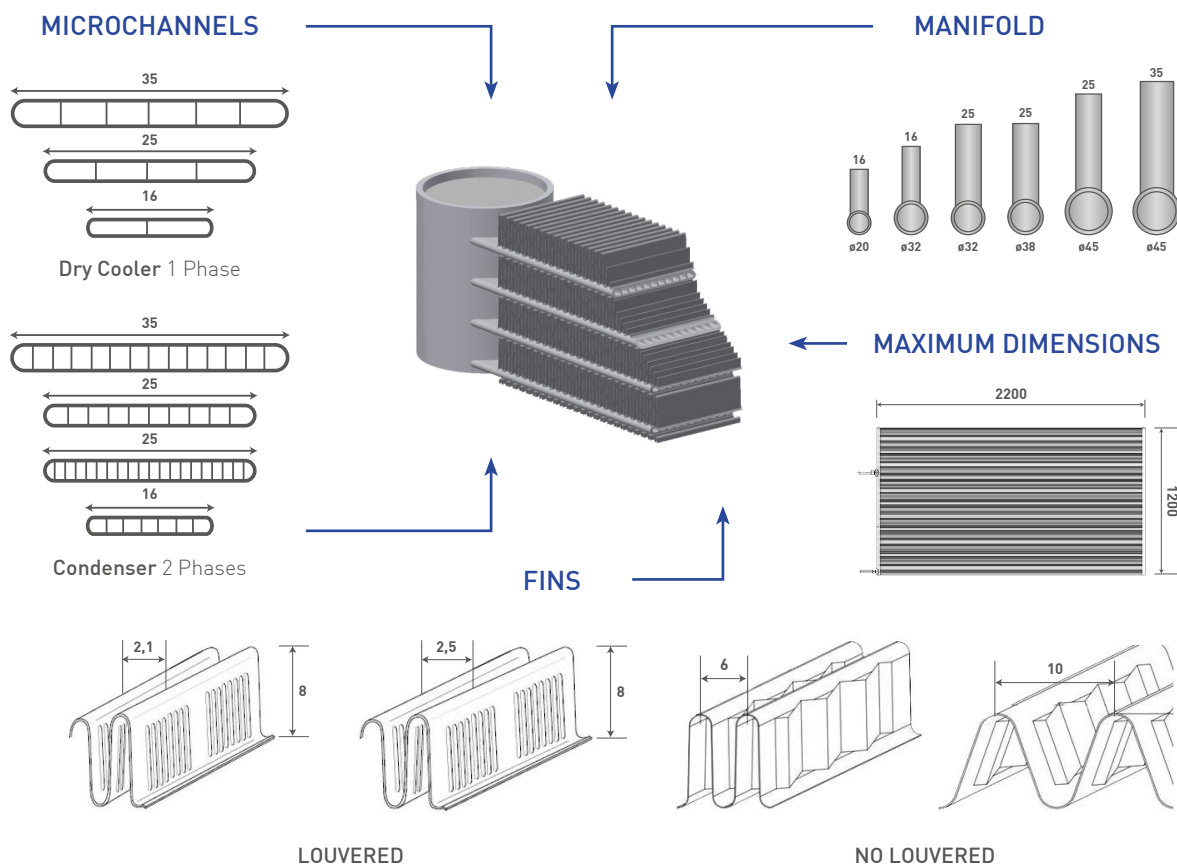
—■— Power (kW) —◆— Air dP (Pa) —▲— Internal dP (kPa)



WORKING CONDITIONS & FEATURES

Dimensions (HxLxD)	1150 x 2200 x 25 mm
Air Inlet Temperature	30 °C
Humidity	50%
Refrigerant	R410a
Condensing Temperature	45 °C
Superheat	35 K
Subcooling	2 K
Weight	32 Kg
Standard Capacity	120 Kw

Geometries and maximum dimensions

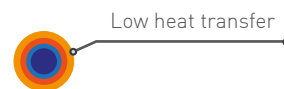


INTERNAL HEAT TRANSFER

Because of their small hydraulic diameter, MP tubes transfer heat more efficiently than traditional round copper tubes.

IMPROVED HEAT TRANSFER

Traditional tube & fin coils are mechanically expanded with no real contact between tubes and fins. Aluminium brazed coils have perfect continuous contact between tubes and fins, assuring an efficient heat transfer.



Traditional copper

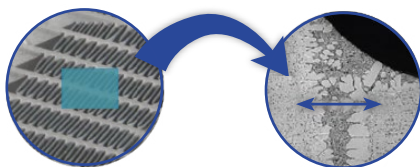
Vs.



Multichannel tube

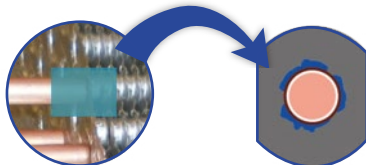
Microscopic view

Brazed joint, perfect heat transfer



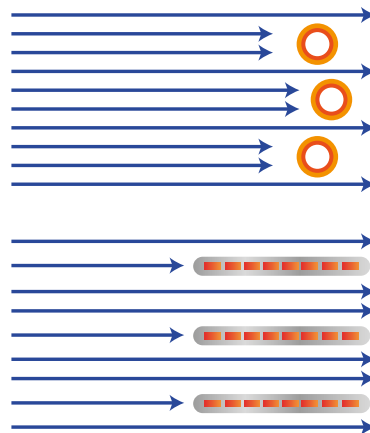
Microscopic view

Mechanical expansion, gaps penalize heat transfer



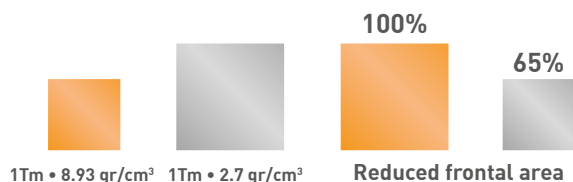
LOWER AIR PRESSURE DROP

Bigger primary to secondary surface area ratio lower tube air shadow



LESS WEIGHT AND SMALLER DIMENSIONS

MENOS PESO Y DIMENSIONES REDUCIDAS



LESS WEIGHT & REDUCED DIMENSIONS

All-aluminium condensers have an obvious advantage against traditional copper tube condensers: less weight. With a 40% more performance, our condensers weigh less than 50% of its copper counterpart. Therefore, your systems will be lighter, more compact, more silent and more durable than ever before.

DURABILITY & CORROSION RESISTANCE

DURABILIDAD Y RESISTENCIA A LA CORROSIÓN



LONG-LIFE

Zinc coated fins and multi-port tubes are manufactured with alloys specially developed for this technology and flux brazed in an inert atmosphere to create a homogeneous chemically steady assembly with leak free joints which guarantee improved corrosion resistance. Because of the low galvanic couple effect among the different aluminium alloys in our condensers, corrosion is minimized compared to traditional copper tube and aluminium fin coils.



25/ø32 mm



ENVIRONMENT FRIENDLY

Besides a lower risk of refrigerant leaks to the environment, our coils are monomaterial making it very easy to recycle compared to the traditional copper tube and aluminium fin heat exchangers.

 C/ Isla de Java, 27 | 28034 | Madrid | Spain

 (+34) 91 728 37 50

 (+34) 91 728 37 57

 climetal@climetal.com

 www.climetal.com

 CLIMETAL, S.A.

 @climetal

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