Microchannel Heat Exchangers
Quality Made in Europe
Go for Aluminium!

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, ALUMINUM 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.
### Geometries and Maximum Dimensions

**MICROCHANNELS**
- Dry Cooler 1 Phase: 16
- Condenser 2 Phases: 25

**MANIFOLD**
- 16
- 16
- 25
- 25
- 35

**FINS**
- 2,5
- 6
- 10

### 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.

### Capacity Calculation Example

<table>
<thead>
<tr>
<th>Working Conditions &amp; Features</th>
<th>Dimensions (H x L x D)</th>
<th>Air Inlet Temperature</th>
<th>Humidity</th>
<th>Refrigerant</th>
<th>Condensing Temperature</th>
<th>Superheat</th>
<th>Subcooling</th>
<th>Weight</th>
<th>Standard Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1150 x 2200 x 25 mm</td>
<td>30ºC</td>
<td>50%</td>
<td>R410a</td>
<td>45ºC</td>
<td>35K</td>
<td>2K</td>
<td>32 Kg</td>
<td>120 Kw</td>
</tr>
</tbody>
</table>

### Dimensions (H x L x D)
- 1150 x 2200 x 25 mm

### Power (kW)
- 13,54
- 36,77
- 53,13
- 65,73
- 73,70
- 84,77

### Air dP (Pa)
- 41,30
- 99,83
- 123,50
- 143,60
- 160,00

### Internal dP (kPa)
- 12,97
- 38,13
- 65,73
- 99,83
- 139,09

### Air speed (m/s)
- 1,2,3,4,5

### Condensing Temperature
- 45ºC

### Superheat
- 35K

### Subcooling
- 2K

### Weight
- 32 Kg

### Standard Capacity
- 120 Kw
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.

LOWER AIR PRESSURE DROP

Bigger primary to secondary surface area ratio Lower tube air shadow

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.

INTERNAL HEAT TRANSFER

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

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.

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.