



Climetal

Heat Exchangers

Go for aluminium!

More performance

Less weight & reduced dimensions

Less refrigerant

Lower energy consumption

Lower noise level

Environment friendly

100% recyclable

ALUMINIUM MICROCHANNEL HEAT EXCHANGERS

Looking for higher capacity, lighter and smaller heat exchangers for your A/C or heating systems?

Aluminium microchannel heat exchangers are your solution

**CONDENSERS
EVAPORATORS
HEATERS**

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ADVANTAGES



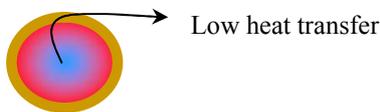
HIGHER PERFORMANCE

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 –16 mm & 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

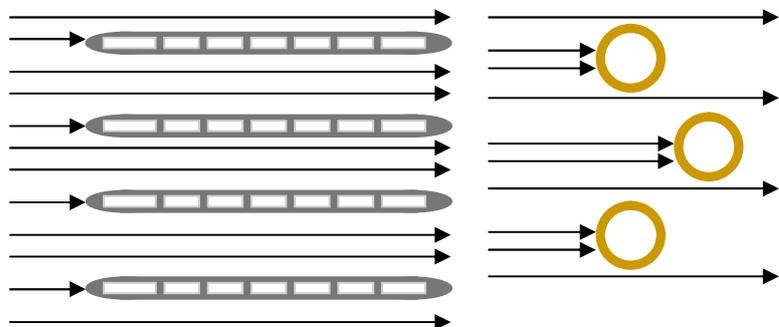
The reduced dimensions of CLIMETAL's condensers will also allow you to decrease the amount of refrigerant used in your system by 30% and still increase performance, generating remarkable savings in your production process and in the future maintainance of the A/C unit.



Tradtional copper vs. Multichannel tube

Internal Heat Transfer

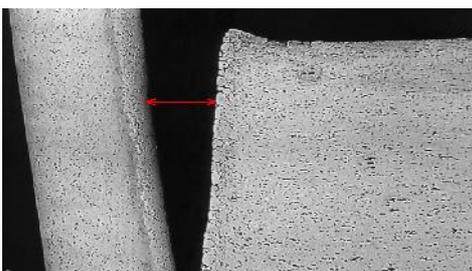
Because of their small hydraulic diameter, MP tubes transfer heat more efficiently than traditional round copper tubes.



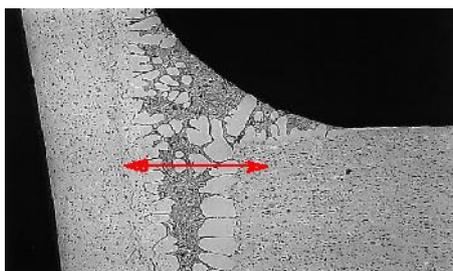
Lower air pressure drop

Bigger primary to secondary surface area ratio
Lower tube air shadow

Microscopic view



Mechanical expansion



Brazed joint

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.

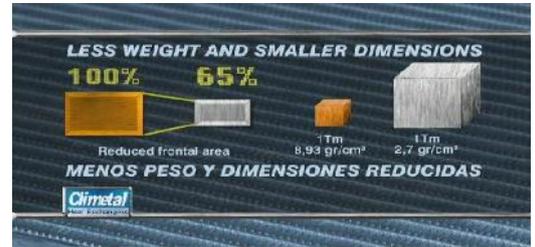
SOLUTIONS

Climetal

Heat Exchangers

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.



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.



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.



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.



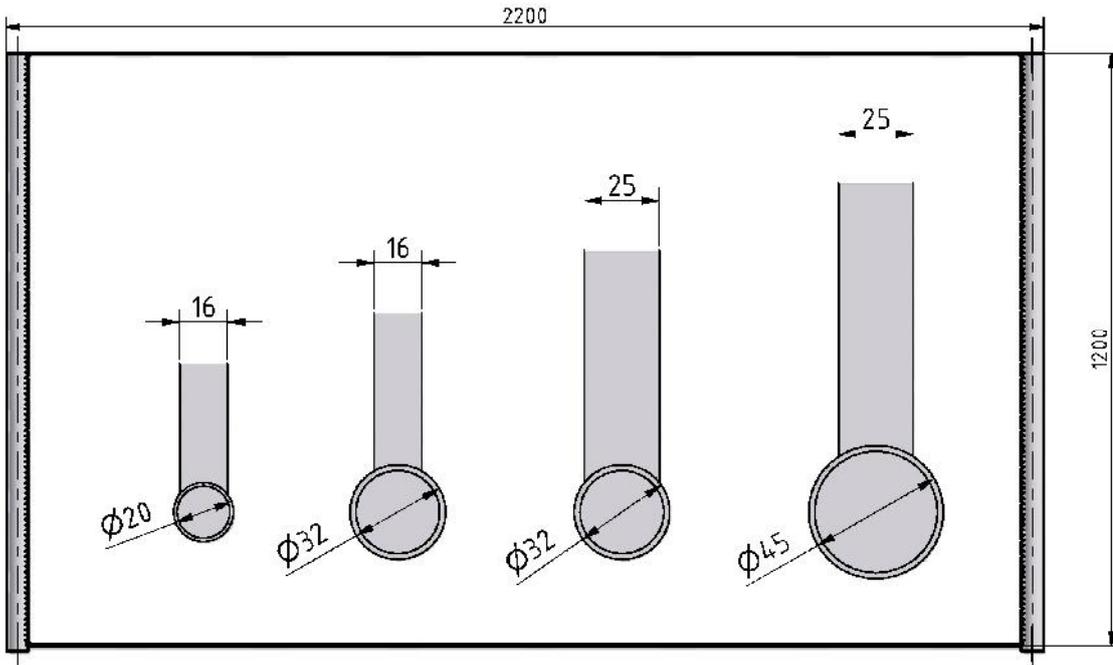
Copper-Alu Brazed connection



Mechanical fittings

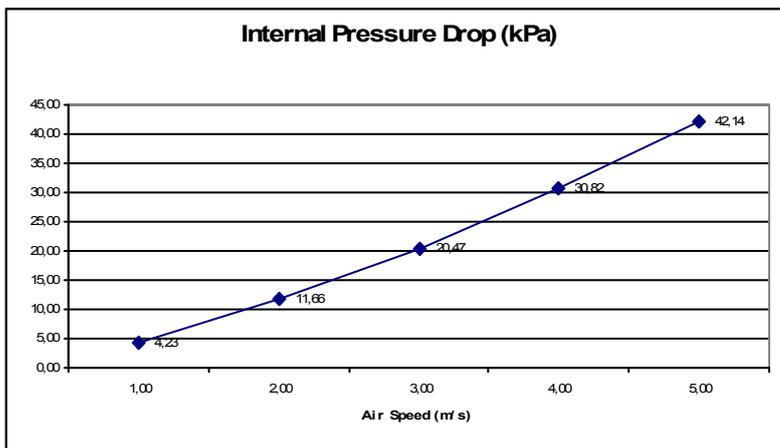
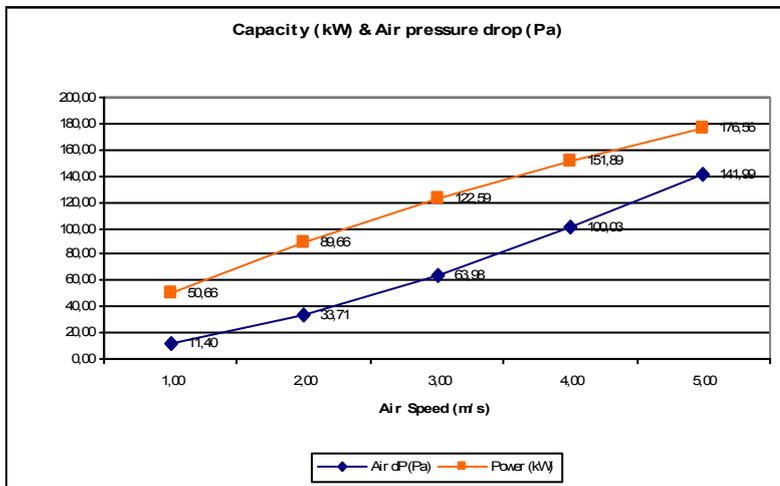


GEOMETRIES AND MAXIMUM DIMENSIONS



Integrated Filter Drier

CAPACITY CALCULATION EXAMPLE



WORKING CONDITIONS & FEATURES	
Dimensions (HxLxD)	1200 x 2000 x 25 mm
Air Inlet Temperature	35°C
Humidity	40%
Condensing Temperature	55°C
Superheat	30K
Subcooling	2K
Weight	31,50 Kg



Modular Solution

For more information watch our video at <http://www.climetal.com/video.htm>