



# ALUVENTA

## C-180 MCHE Condenser

High performance

**ALUMINIUM CONDENSERS**

70%

Reduced coil weight

80%

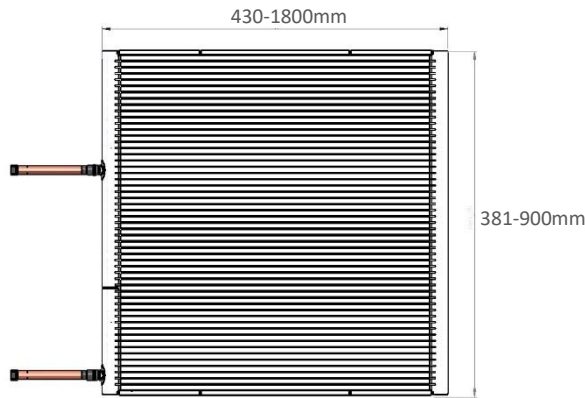
Reduced refrigerant charge

75%

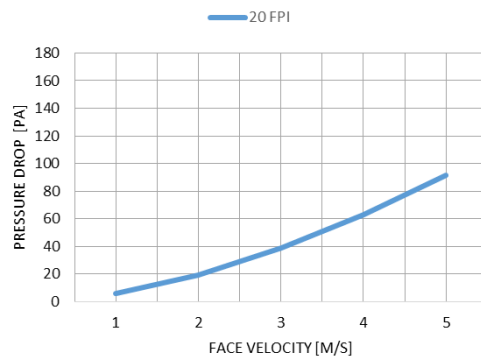
Reduced coil depth

[www.ALUVENTA.com](http://www.ALUVENTA.com)

# C-180 MCHE Condenser for PS = 45 bar



Airside pressure drop



## Product

This coil is specially designed for use as condenser in HVAC-applications, such as: chillers, condenser units, remote condensers, residential AC, commercial AC, Air Handling Units, Transportation and special units. The coil can be used for pressures up to PS=45bar and therefore optimized for R410a but can also be used for all other refrigerant with same advantages. The coil can be customized in size and capacity to match the requirement of the specific application, giving compact units with high efficient cooling solution. The unique design of the MPE-tubes and the louvered fins together with the special technology of completely brazed aluminium parts gives advantages such as low weight, reduced refrigerant charge, low depth, reduced pressure drop (noise level) and improved efficiency. All Aluventa coils are designed according to customer needs in order to achieve the best solution and highest efficiency.

## Technical spec.

Type	MPE profile:	Fin height:	Fin pitch:	Height Min – Max:	Length Min – Max:	Weight Min – Max:	Volume Min – Max:	Min/Max TS:	Min/Max PS:
C-180	18 mm	10 mm	20 (FPI)	381 – 900 mm	430 – 1800 mm	1,23 – 12,32 kg	0,31 – 1,68 litres	-30/+120 °C	-1,0/45,0 (bar)

## Refrigerants

The coil is approved for group 1 and 2 refrigerants up to PS = 45bar(g), such as R410a, R717, R22, R134a, R290, R407c, R744, R404a, R507A. Use with propane and ammonia is recommended only with coated coils.

## Materials

The coil is designed with a unique material system of Aluminium alloys in order to achieve a coil with optimized corrosion-resistance and strength.

## Coating

The coil is available with coating for extra corrosion protection. The coating is an *Electrofin*<sup>®</sup> e-coating solution that is considered the only reliable coating for microchannel technology that will meet market standards and Aluventa quality requirements. Information on selection and recommendation can be found in the *Aluventa Selection Guideline*.

## Connections

The coil is available with standard copper tube connection in OD size: 12,7; 16,0 and 22,0mm. The connection can be selected in 0°, 45° and 90° angles. The copper tube connection is selected in accordance to EN 12735. The Cu/Al joint is protected with rubber sleeves to prevent galvanic corrosion.

## Approvals

PED 2014/68/EU for use with group 1 and 2 fluids (the coils are covered by article 4 section 3 in the PED 2014/68/EU). UL 207 certified (except from Ammonia (R717))

## Leak test

All coils are pressure and leak tested using Helium mass spec. technology. The test is carried out at 50 bar as part of the quality control. The coil can be delivered sealed with a pressurised protective gas.

## Quality

Aluventa A/S is an ISO 9001 certified company (DS/EN ISO 9001:2015). All coils are produced under the Aluventa advanced Quality System to ensure a consistent high quality level. All products and materials are recorded with full traceability.

## Coil selection

The coil can be selected and designed using the Aluventa Simulation Software *AluHex*. Please contact Aluventa for support on simulation, selection and design.

## Documentation

Further information and documentation is available in form of:

- *Aluventa Design Guideline*,
- *Aluventa Selection Guideline*,
- *Aluventa Product Specification Type C-180*
- *Aluventa Installation and Maintenance Manual*.

All documents are available for download at [www.aluventa.com](http://www.aluventa.com)

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