



**Alcoil**<sup>®</sup>   
A Wholly Owned Subsidiary of EVAPCO

## MicroChannel Heat Exchangers



Increased Performance • Higher System Efficiency  
Low Refrigerant Charge • Compact Design



MADE IN THE USA



EVAPCO Alcoil is the leading manufacturer of MicroChannel Heat Exchanger Coils for the HVAC/R and Industrial Process markets. Located in York, Pennsylvania, EVAPCO Alcoil employees take pride in workmanship, quality and customer service.

EVAPCO Alcoil is a wholly-owned subsidiary of EVAPCO, Inc. EVAPCO is a global supplier of heat transfer products and services. Learn more at [www.evapco.com](http://www.evapco.com)



## Get to Know EVAPCO

- Serving the Commercial HVAC, Industrial Refrigeration, Power Generation, and Industrial Processing markets
- Founded in 1976
- Employee-owned
- 24 manufacturing facilities in 10 countries
- More than 170 sales offices worldwide

# MicroChannel Heat Excha

## Why EVAPCO Alcoil Brazed Aluminum Heat Exchangers?

EVAPCO Alcoil brazed aluminum heat exchangers offer significant advantages over traditional aluminum fin/copper tube coils.

### Higher Efficiency & Performance

- 20% to 40% greater overall performance
- Lower air-side pressure drop

### Smaller Size & Less Weight

- Up to 30% smaller face area (HxL dimensions) depending on design conditions
- Thin profile takes up less space and reduces cabinet size
- Up to 60% less weight means lower shipping costs, reduced equipment structural requirements

### Lower Cost

- Reduced material cost
- No sacrifice in quality

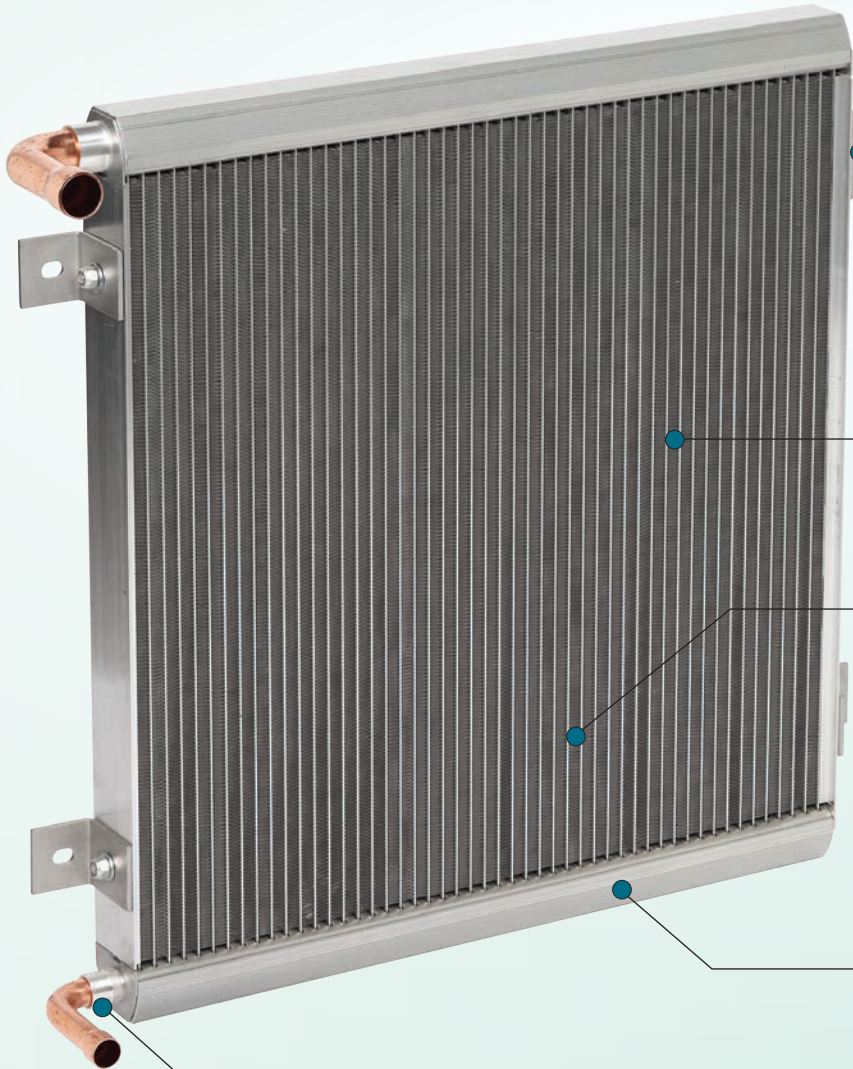
### Less Refrigerant Charge

- Less internal volume, but not critically charged, with built-in mini-receiver

### Proven Reliability

- Time-tested manufacturing processes and materials
- Built-in reliability
- Heavy duty, robust design

# ngers – an Innovative Heat Transfer Solution!



## Custom & Standard Sizes

Flexibility and variable dimensions are tailored to our OEM customer needs using our MicroChannelSELECT™ Software. Custom and QuickShip Heat Exchangers are available as small as 3" x 3" to a maximum of 96" x 186". Capacities range from 1/4 tons to over 40 tons.

## Easy Mounting

The coil itself is a robust frame that provides air tight flush mounting, thereby eliminating unnecessary components and air bypass. Optional "L" brackets, 1/4"-20 studs or 1/4"-20 flush nuts are available for easy mounting.

## High Performance Fins

State-of-the-art louvered fin design provides low airside pressure drop and high heat transfer.

## Vertical MicroChannel Tubes

EVAPCO Alcoil's patented innovation incorporates vertical tubes that enhance coil operation, ensure predictable performance and minimize accumulation of oil. Tube walls are 40% thicker than automotive grade and imported MicroChannel designs which assures long operating life.

## Low Pressure Drop Headers

Unlike any other HVAC/R coil, all EVAPCO Alcoil units have ultra low pressure drop in the headers. This unique feature allows the coil to perform well in many demanding operations.

## Connections and More

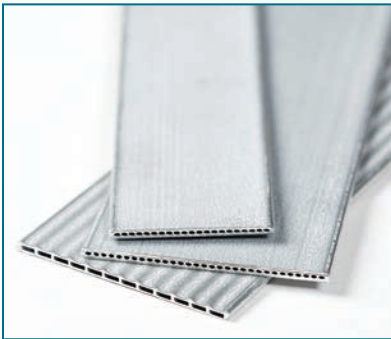
EVAPCO Alcoil heat exchangers are available with copper sweat connections, steel pipe connections and custom orientations.



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## Designing for the Future

The HVAC/R and Industrial Process markets are making a transition to brazed aluminum heat exchangers. This is evidenced by the wide use of MicroChannel condensers by major HVAC/R manufacturers and many smaller OEMs manufacturing cooling and heating equipment. The trend is driven by the higher cost of copper, significant energy efficient improvements, need for smaller footprints, and conversion to R410a and other refrigerants.



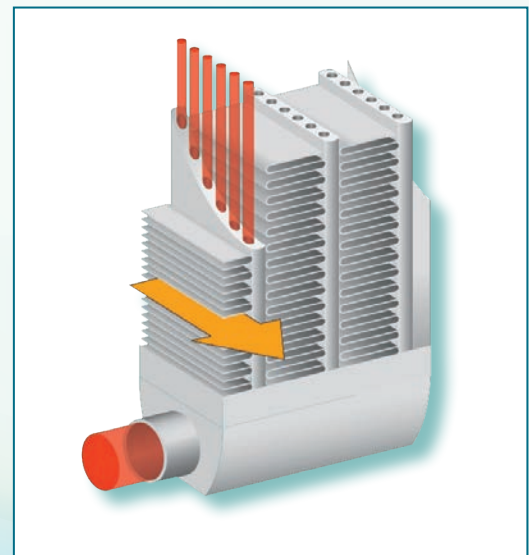
EVAPCO Alcoil is a premier manufacturer and developer of brazed aluminum heat exchangers for the HVAC/R and Industrial Process markets. Our Advanced MicroChannel Technology™ provides higher performance, smaller size and features and capabilities not found in traditional fin/tube heat exchangers. EVAPCO Alcoil's focus is on the demanding HVAC/R design conditions, offering application flexibility and longer heat exchanger life.

## It's All About Advanced MicroChannel Technology™

EVAPCO Alcoil's condensers, evaporators and fluid cooling coils out-perform traditional fin/tube heat exchangers for a number of reasons. We use multi-port thin extrusion known as a MicroChannel tube. These tubes are combined with louvered high performance fins, headers, fittings and sub-components, all integrally brazed together using aluminum alloys.

EVAPCO Alcoil's MicroChannel Coils are based on a "Next Generation" design that combines high performance flat tubes, state-of-the-art airside fins and low pressure drop headers. The tubes have numerous mini-ports that enhance refrigerant side performance, while the airside achieves closer approach temperatures with lower airside pressure drops. The end result is higher overall heat transfer performance.

The 100% integral brazed design provides both higher performance and lower airside pressure drops over mechanically assembled, traditional heat exchangers. MicroChannel coils have superior corrosion resistance. No dissimilar metals eliminates the potential for galvanic corrosion. The results are product features and thermal capabilities not found in traditional fin/tube heat exchanger products.



# Product Innovation and Customer Service— The Core of Our Philosophy

EVAPCO Alcoil is dedicated to the manufacturing, development, and application of brazed aluminum heat exchangers used in the HVAC/R and Industrial Process markets. We specialize in airside condensers, evaporators, heating/cooling coils, oil coolers, and process applications. Our manufacturing facility located near York, Pennsylvania uses the latest in manufacturing and testing equipment. We are well positioned to serve OEM customers in North America and throughout the world.

EVAPCO Alcoil’s manufacturing processes are unique and allow for fast customer prototypes and ample production capacity for small and large volume customers. We are dedicated to customer service and use the best possible software tools to accurately calculate heat exchanger performance and support a wide range of applications.

## Quality at Every Level

With EVAPCO Alcoil’s Advanced MicroChannel Technology™, every heat exchanger is precision assembled starting with MicroChannel tube processing. Airside fins and manifold/headers are fabricated on state-of-the-art machinery and the combined components are put into a final assembly by EVAPCO Alcoil’s experienced craftsmen.

The completed heat exchanger is put through a controlled atmosphere furnace where it is integrally brazed into a leak-tight, structurally strong final product. All EVAPCO Alcoil products are proof tested, helium leak tested and UL listed for quality assurance.



## Available Uses

HVAC/R Coils		
Condensers	Yes	R410a, R22, R134a, R404a and others up to 40 ton (Hp) per coil
Evaporators/Heat Pumps	Yes	Evaporator and heat pumps up to 30 tons per coil
Reheat/Heat Recovery	Yes	Wide range of refrigerants and fluids
Cooling/Heating Coils	Yes	Closed loop, water and glycols - up to 50 gpm per coil
Industrial Coils		
Cooling Coils	Yes	Closed loop, water and glycols - up to 50 gpm per coil
Heating Coils	Yes	Closed loop, water and glycols - up to 50 gpm per coil
Oil Cooling	Yes	Full range of hydraulic and lube oils
Special Fluids	Yes	Wide range of fluids and gasses, compatible with aluminum



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# Family of MicroChannel He

EVAPCO Alcoil has a full line of MicroChannel coil models for cooling and heat rejection for HVAC/R systems for R410a, R134a, R404a, R717 and other refrigerants. Water and Glycol fluid models are available as both cooling coils and heating coils. Model sizes as small as 3" x 3" to 96" x 186" size.

## Condensers

1/2 to 40 tons

EVAPCO Alcoil manufactures a full range of refrigerant condensers from 1/2 tons to 40 tons for the HVAC/R industry, rated for 450 psig and 650 psig applications. The C Series Condenser is a robust design with built-in mini-receiver and numerous options.



## Evaporators/Heat Pump

1/2 to 30 tons

EVAPCO Alcoil's E Series Evaporator and HP Series Heat Pump represent leading edge technology as a direct expansion (DX) cooling coil and/or reverse cycle heat pump coil. With a built-in refrigerant distributor and louvered fins providing superior condensate shedding, the E and HP Series provide high performance with all the advantages of MicroChannel technology.



EVAPCO Alcoil products are manufactured under Patent 8,662,148 and others pending in the U.S. Patents pending in Europe, China and other countries.

# Heat Exchanger Products

## Fluid Coils

up to 50 gpm

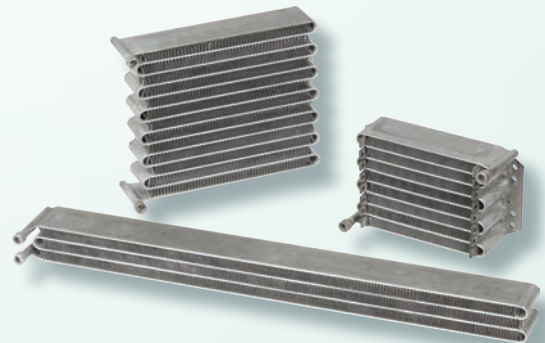
For water and glycol systems, free cooling, heat recovery and other applications. EVAPCO Alcoil manufactures a high performance MicroChannel specifically for fluid to air. With advanced water shedding as a cooling coil or high performance as a heating or cooling coil, fluid models feature 3/4", 1" and 1-1/2" connections. Rated for 300 psig and 450 psig



## MicroCoils™

up to 1/2 ton

For electronics, medical, computer and small appliance products, EVAPCO Alcoil has a family of MicroCoils™ as condensers, evaporators and fluid coils. The MicroCoil™ is lightweight and ultra small for specialty products from 20 to 2200 watts.

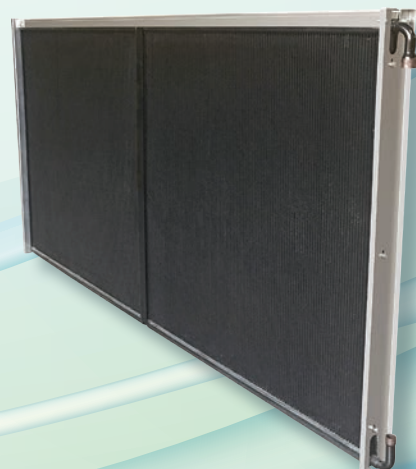


## Replacement Coils

up to 40 tons

EVAPCO Alcoil provides custom replacement coils for all major manufacturers and can configure MicroChannel coils for other required HVAC/R applications including:

- Reheat & Desuperheater Coils
- Flooded & Pumped Loop Evaporators
- Subcoolers
- Optional epoxy coating





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