

A+SERIES® A+P

Insulated Penthouse Air Cooler



COLMAC COIL MANUFACTURING, INC

"The Heat Transfer Experts"

Who We Are

Founded in 1971, Colmac Coil Manufacturing initially supplied heating and cooling coils to OEM customers and the HVAC industry. By the early 1980's Colmac Coil had expanded their refrigeration product line to include industrial air coolers and condensers for the ammonia refrigeration industry, developing a reputation for high quality products and the ability to engineer a wide range of heating and cooling solutions using their in-house developed heat and mass transfer modeling software.

Our Mission

The mission of Colmac Coil is to provide heat transfer markets worldwide with innovative, cost effective products that are configured, manufactured, and shipped with the shortest lead times in the industry, with fast, friendly service, for the mutual benefit of our employees, customers, and shareholders.

Our Products

- Refrigeration Evaporators
- Fluid Coolers & Condensers
- Hygienic Air Handlers
- Heating & Cooling Coils
- Heat Pipes



Manufacturing Factory - Paxton, IL



Manufacturing Factory - Colville, WA

Our Customers

Colmac Coil serves a wide variety of markets and customers with an emphasis in the following industries:

- Industrial Refrigeration
- HVAC
- Power Generation
- Process Cooling



THE A+P IS AN **INSULATED PENTHOUSE AIR COOLER** FOR INDUSTRIAL APPLICATIONS

Colmac Coil's A+Series® A+P Penthouse air cooler is designed for maximum versatility and efficiency. With availability for ammonia, freon, CO2 and glycol systems and capacities from 5 - 100TR, The A+P is the ideal evaporator for new and existing cold storage warehouses and food processing plants.

Discover why the A+Series® A+P Insulated Penthouse Air Cooler is trusted by America's largest cold storage warehouse providers and industrial refrigeration contractors:

- Available in customizable configurations to fit the requirements of any project
- Designed for a seamless Installation, servicing access, and equipment longevity
- Colmac's evaporator, defrost, and fan technology, equipment safety certifications, industry leading warranty, and dedicated partnership with each customer from design to delivery

"The Heat Transfer Experts"

A+P Penthouse Configurations



A+P Insulated Penthouse Air Cooler

FEATURES

- Roof-mounted
- 1 to 6 fans
- Custom design of the exact unit needed to match roof support locations, existing unit footprints and evaporator capacities by customizing the size of the unit, coil design, air flow and air distribution.



A+P Dual Coil

OVERVIEW

- Dual coil designs provide large capacities while providing system redundancy by allowing one evaporator at a time to defrost.
- The coils are either completely isolated with four doors provided in freezers or isolated on the fan section only with three doors provided in coolers at above freezing temperatures.



A+P Insulated Base

OVERVIEW

- Designed for installations off of the roof or for cold storage buildings with interstitial space
- Insulated base allows the units to be elevated above the roof and supported at thermally isolated mounting points.
- Available with EC fan motors



A+P Pitched Base

OVERVIEW

- Pitched base is available - ships installed on the unit
- Reduces the need for a separate curb
- Pitched base up to 2" in 10'
 - Pitched along length or width
- Ships installed on base of unit

Industrial Air Cooler Features

Evaporator

- Multiple fin spacings and tube configurations
- Patented tubes manufactured by Colmac
- Hygienic material options
- Varying weld finish levels



Tube Material

- Stainless steel
- Aluminum

Drain Pan

- Triple sloped drain pan to eliminate condensation pooling in the drainpan
- Fully insulated drain pan
- Optional seal welded drain pans
- Drain pan material
 - Stainless steel
 - Galvanized steel



Fin Material

- Aluminum
- Epoxy coated aluminum
- CuNi
- 304 & 316 stainless steel

Casing Material

- G-235 galvanized steel
- 304 & 316 stainless steel

Fans



Tube Axial Fans

- 1 to 15 HP premium efficiency motors
- Bench style mount motor
- Top mount fan for easy maintenance access to fan and motor from unit interior
- Round discharge flange for duct extension or plenum mounting standard

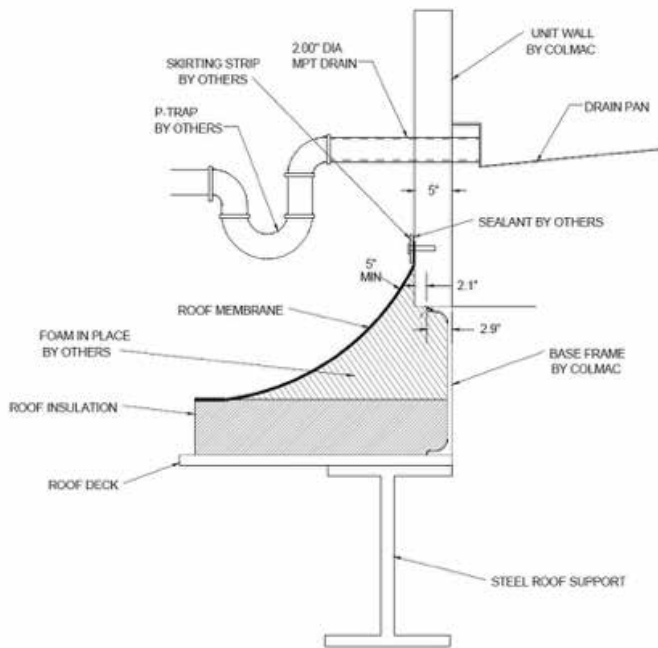
EC Fan Motors

- Optional on insulated base configuration

A+P Exterior Features

Base Features

- Standard design for installation on flat roof
- Optional pitched base up to 2" in 10'
 - Pitched along length or width
 - Ships installed on base of unit
- Roof to panel interface by others in field
- Side drain connection to roof
- Optional drain into building



Base Construction

- Structural steel perimeter frame
- G235 galvanized metal bracing and support structure
- Fully primed and painted frame members
- Integrated welded lifting brackets
- Standard seismic design complies with SDC=D, Occupancy design=11, Site Class=D
- Standard design withstands 90mph wind speed
- Optional increased seismic and wind speed available



Support Frame

- G235 galvanized metal interior support frame
- Access doors standard on both sides of unit, maximized based on unit height
- Galvanized steel grating on both sides of coil standard



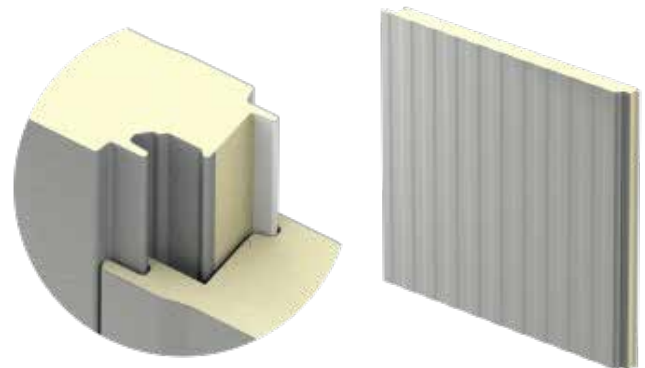
Insulated Doors

- Full size access doors on both sides of the unit
- Frank Door Company in-fitting door with frame
 - Exterior overlap door seal with door and jamb heat trace
 - Increased R value
 - Rotary latch with SST and composite hardware
 - Extruded aluminum frames and PVC jamb (no wood)



Insulated Panel Construction

- Foamed-in-place polyurethane foam panels
 - Assembled with offset tongue and groove for thermal break
 - Utilizes concealed fasteners to eliminate thermal short circuits
 - All panel joints/corners employ triple seal process to ensure full vapor barrier seal
- Interior and exterior surface is embossed 26GA galvanized steel
 - Interior polyester coating in igloo white
 - Exterior silicone modified polyester coating in winter white
- 5" R-41 standard panel thickness
- 6" R-49 optional roof panel thickness
- Optional color matched panels available

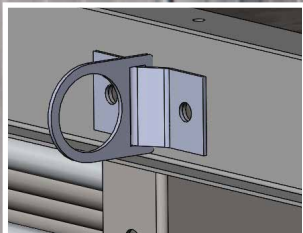


Roof Construction



- Full welded roof membrane
- Mechanically fastened at perimeter and intermediate points
- Termination bar and edge trim around perimeter of roof
- Full triple seal vapor barrier under roof membrane
- Optional increased roof panel thickness/R-value available
- Optional sloped roof available

A+P Servicing & Electric Features



Interior Safety and Serviceability Features

- Interior LED lighting
- Individual light switches inside each door
- 120 V service outlets on both sides of coil
- Full height access on both sides of coil
- Door heat trace standard
- Door safety interlocks optional
- Individual removable grating sections above each fan for motor access
- Motor hoist arm movable between each fan bay
- Traction strip on smooth metal floor surfaces
- Electrical runs on interior of unit in EMT sealed conduit
- Safety tie off at each tube sheet

Electric Features

- Motor control panel
 - NEMA 4 enclosure standard
 - Remote and local operation
 - Optional VFD
- Weather hoods standard
- Double or single EEV control for ADX or CO2 system
 - Separate enclosure and disconnect for low voltage 24V
- Motor and service circuits wired to terminal strips standard
- Customized UL508 listed control panels available for all units
 - Single point wiring optional
 - Remote and local control
 - Optional VFD



Safety Listings & Installation Features



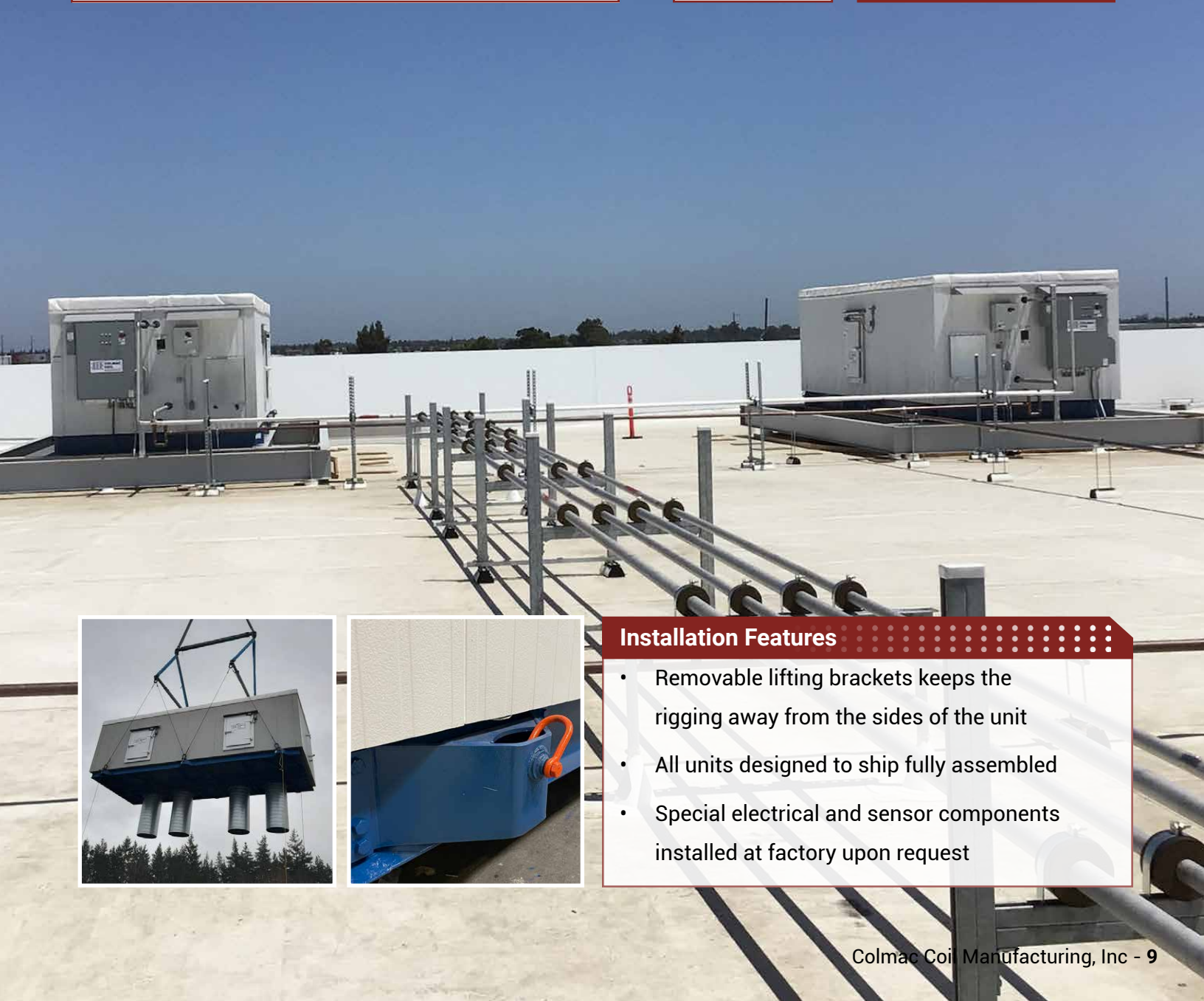
Safety Listings

- ASME B31.5
- ASME "U" Stamp
- CRN - Canadian Registration Number
- CSA - Canadian Standards Association
- UL 508a & UL 207



CRN

CSA



Installation Features

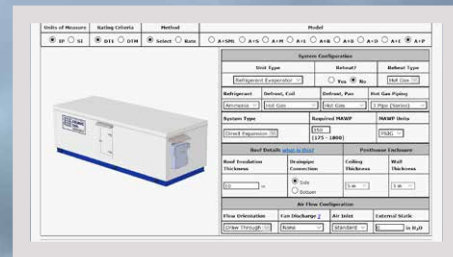
- Removable lifting brackets keeps the rigging away from the sides of the unit
- All units designed to ship fully assembled
- Special electrical and sensor components installed at factory upon request

Selection Software

A+Pro selection software allows you to select or rate A+P penthouse evaporators to match your project requirements and provides you with complete performance, dimensional, electrical, and installation information.

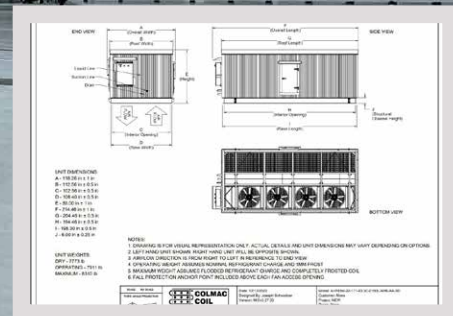
A+P selections can be sorted and prioritized in order of:

- Lower first cost
- Lowest operating cost (Fan kW/TR)
- Smallest refrigerant charge
- Lightest weight
- Lowest noise level



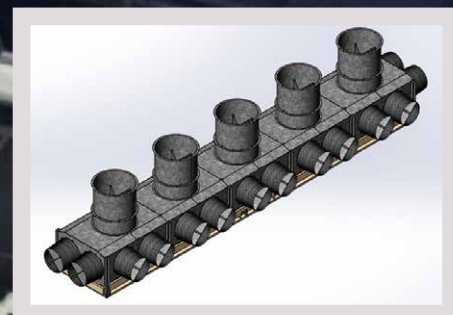
Submittal Drawings

- Get the exact submittal drawing of the selected or rated unit(s) in A+Pro selection software



Additional Options

- Ammonia detection system
- 90-degree duct extensions
- Stainless steel interior
- Washdown duty components



Warranty & Shipping



Warranty

- Standard 5-year warranty on all pressure bearing elements (tubes, headers, connections, weld joints) in our stainless steel ammonia evaporators
- Standard 2-year warranty for all other parts

Shipping

- All units designed to ship fully assembled
- Over width as needed up to 144"
- Below 102" tall on a standard flatbed
- Between 102" and 120" tall on step deck flat bed
- Above 120" tall on double drop flat bed
- Freight quotes in A+Pro selection software
- Ship two units on one flatbed



Contact Us Today

We look forward to finding a solution with you. To learn more, receive a quote, or sign up for A+Pro selection software, visit www.colmaccoil.com to contact your local Colmac Coil sales office or the factory.

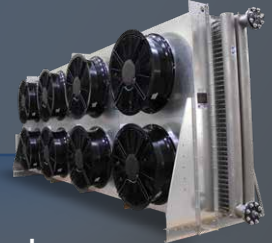
QUALITY PRODUCTS FROM COLMAC COIL



**A+Series®
Air Coolers**



**Fluid Coolers
and Condensers**



**Custom Evaporators
and Blast Freezers**



Heat Pipes



**Heating and
Cooling Coils**



www.colmaccoil.com
"The Heat Transfer Experts"
Since 1971

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CRN



CSA

ASME Sec. VIII, Canadian Registration Number, UL508, Canadian Standards Association

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