

Energy Saving Manufacturer of Quality Air Moving Equipment



United Metal Products® Commitment:

- To deal fairly and honestly in all situations and business relationships.
- To consistently innovate cutting-edge, green technology to meet the most unique cooling and heating demands.
- To provide the highest level of engineering and manufacturing techniques in order to deliver the best cooling/heating solutions and products possible.
- To design and manufacture energy efficient cooling solutions for data centers that provide significant energy savings to the end user.

A History of Experience

United Metal Products[®] was founded by Steve and Peter Kinkel. The Kinkels come from a long family line of cooling industry professionals. Their grandfather, John Goettl, pioneered the early commercial development of evaporative cooling in the 1930s. What began as a start-up company in 1977 has turned into the industry leader for providing innovative and environmentally friendly cooling and heating solutions.

With over forty years of experience and expertise, United Metal Products® has established itself as a valuable member of any design-build team. From start to finish, the company provides technical solutions, including complete layouts, equipment specifications, and product schedules to meet the tight deadlines required by today's owners. "Our unique ability to deliver high quality solutions in a quick and responsive manner gives us the competitive advantage," said president Steve Kinkel. "We make it easy for engineers and contractors to get their job done."

"The vision of United Metal Products[®] is to provide our customers with high quality, customized cooling solutions to meet their unique needs. We satisfy our clients' needs by offering the highest level of customer service and support. We do what we say, we finish what we start, and we complete projects on time." Steve Kinkel, President of United Metal Products

Outside Air Specialists



Design

Starting with the correct unit configuration is key. United Metal Products'® knowledgeable design team draws on over two hundred years of combined industry experience and the most powerful engineering tools to provide each application with the right component arrangement. In order to achieve the highest level of precision possible, United Metal Products[®] developed the Celector Program[™] to provide engineers and contractors with one of the most comprehensive selection tools in the HVAC industry. This technology allows for each unit to be customized to the inch and then modeled through the Auto-Cad[™] and Solid Works[™] programs, which ensures that any errors are caught and corrected long before the unit hits the plant floor. By strictly following this process United Metal Products® assures that the customer's expectations are met.

Located in the heart of one of the harshest climatic regions of the world, where temperatures can exceed 120°F, United Metal Products[®] is uniquely experienced in dealing with the toughest of cooling issues. The base of their operations is in Tempe, Arizona in over 250,000 square feet of facilities on approximately 10 acres.

20,000 CFM 100% OSA Custom Air Handler





- Air Movement and Control Association, Inc. Certified Member
- American Gas Association
 Certified Furnaces



- ETL/Member Labeling Available
- ARI Standard 410 Certified Coils

Fabrication

United Metal Products® uses the technologically advanced equipment to achieve fast turn cycles as well as precise fitting and finishing of the end product. The automated machinery ensures quality control, improves fabrication times, and optimizes the production capability of the manufacturing facilities.

Powder Coating

United Metal Products® is absolutely committed to providing the highest quality products available on the market. The powder coating of the units is a small example of their commitment to excellence. They offer a variety of selections for the coating including the superior epoxy powder-coated paint finish inside and out. This coating is electrostatically applied before being baked at 375°F for a hard, appliance like finish that resists corrosion, scratches, and harmful ultraviolet light.

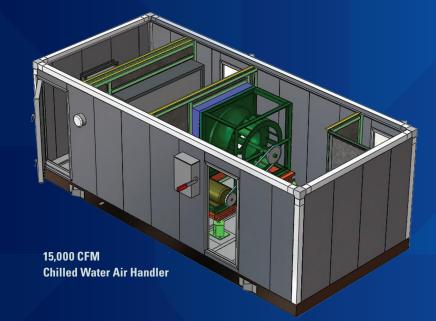
Green Cooling Solutions



Production

United Metal Products® has two manufacturing facilities totaling over 150,000 square feet. Both of these facilities are located in Tempe, Arizona on approximately 10 acres. These facilities are where the air handling systems ranging from 1,000 CFM to over 200,000 CFM in custom configurations are designed and manufactured. This is also where UMP® produces mass customized units for the industrial/commercial evaporative cooling industry.

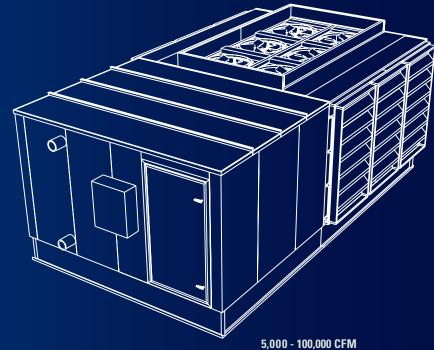
The over thirty-five years of experience, innovative design capabilities, manufacturing precision, and engineering expertise establishes UMP® as a valuable member on any design-build team. From start to finish, the company provides technical solutions, including complete layouts, equipment specifications, and product schedules to meet tight deadlines. United Metal Products^(®) facilities reflect the strong background in engineering and manufacturing of its owners. United Metal Products^(®) modern and efficient plants utilize 5S and Lean strategies to their fullest potential.





Data Center Solutions

Power usage is one of the main challenges for data center users. By some estimates 4% of all power in the United States is being consumed by data centers and one-third of this energy goes toward cooling the data center facility. To meet this demand for energy efficient cooling solutions UMP has developed a complete line of new data center products. Applying solutions form the UMP DC-Series provides power, installation, and maintenance cost savings to the owner while dramatically lowering the PUE. Drawing upon decades of innovation and experience with adiabatic or evaporative cooling, UMP is able to deliver solutions that are on many of the most energy efficient data centers in the world. The DC Series help end users significantly reduce their OPEX, lower their energy usage, and as a result improve their PUE.



5,000 - 100,000 CFM DC-AHCe™ Dry Cooling Unit

Data Center Cooling

Data Center Series

DC-AHCe[™] (Dry Cooling)

- No water use dry cooling mode
- 5,000-100,000 CFM or higher
- 30 kW-600 kW of cooling capacity

DC-CRAH[™] (Computer Room Air Handling)

- 10,000-80,000 CFM at up to 3.0" TSP
- Available with DX or chilled water
- Custom sizes and unit layouts available

DC-ERA[™] (Evaporative/Return Air Unit)

- 0-100% OSA / evaporative economizer
- 5,000-100,000 CFM or higher
- 50 kW-1,000 kW of cooling capacity

DC-IRAe[™] (Indirect Return Air Unit)

- Indirect evaporative cooling (70% and above efficient)
- 30 kW-600 kW of cooling capacity
- Trim chilled water cooling

DC-RAC[™] (Return Air Cooling Unit)

- 5,000-40,000 CFM or higher
- 30 kW-300 kW of cooling capacity
- Trim DX cooling

DC-RAW[™] (Return Air Passive Wheel)

- 5,000-100,000 CFM or higher
- 30 kW-600 kW of cooling capacity
- Passive wheel technology

DC-XRA[™] (Cross Flow Heat Exchanger)

- 5,000-100,000 CFM or higher
- 30 kW-600 kW of cooling capacity
- Cross-flow plate technology















Various Worldwide Applications

- Large Data Centers
- Colo-Facilities
- Modular Data Centers
- Containerized Data Centers
- Hi-Density Data Centers
- Upgrades to existing Data Centers

Product Line

Cel-Air®

- Direct evaporative cooling equipment
- Industrial/commercial applications • 1,000 to 120,000 CFM

Indirect/Direct Unit (IDU™)

- Indirect/direct evaporative cooling equipment
- Industrial/commercial applications
- 1,000 to 120,000 CFM

Fan-Air®

- Super efficient evaporative cooling units
- Lowest profile evaporative cooler on the market
- 3,000 to 30,000 CFM

Energy Recovery Unit (ERU™)

- Up to 100% or more efficiency
- High OSA applications
- 3,000 to 100,000 CFM

Modular Air Handling Unit (MAHU[™])

- Modular components in a single package
- Perfectly suited for mixed air, 100% RA, 100% OSA and economizer applications
- 1,000 to 25,000 CFM

Vertical Air Handling Unit (VAHU™)

- Streamlined design
- Perfectly suited for mixed air, 100% RA, 100% OSA and economizer applications
- Capable of producing high profile static pressures with minimal footprint

Custom Air[™]

- Completely customizable
- Full range of options including DX to steam or gas heating
- 1,000 to 200,000 CFM

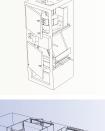












Facilities Airports Breweries **Data Centers** Distribution Centers Greenhouses Hangers

Hospitals

- Kennels **Mining Facilities** Municipal Complexes Museums Prisons Schools **Sports Facilities** Warehouses
 - Wholesale Club Facilities



Partial Customer List

Coca-Cola	Chrysler	Boeing
Pepsi	RCA	Disneyland
Motorola	Wal*Mart	US West
Kroger	UPS	Mattel
Albertson's	GE	Nabisco
Nabisco	Bose	Keebler
	La serati	Hama Danat
Lowe's	Lexmark	Home Depot
Lowe's Lockheed	Lexmark Epson	Rubbermaid
201100		•
Lockheed	Epson	Rubbermaid
Lockheed Ford	Epson Earthlink	Rubbermaid
Lockheed Ford GM	Epson Earthlink Samsonite	Rubbermaid

Various Worldwide Applications:

Aircraft

Maintenance

Evaporative Technology Experts

United Metal Products[®] is a manufacturer of commercial HVAC equipment with a proven track record of excellence and a strong commitment to customer service. As the industry's leader in outside air energy recovery and evaporative technologies, United Metal Products[®] specializes in developing innovative solutions while maintaining high standards of quality. This commitment to providing outstanding customer service along with the highest quality products has led to United Metal Products'® equipment being installed on facilities throughout the world from Mexico to the Middle East and across the entire United States.

Green Cooling Solutions

Energy Saving Innovators



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