

# PRODUCT ONERVIEW

Replacement Coils
Fan Coil Units
Belt Drive Units
Modular Air Handlers
Fluid Coolers
Remote Condensers

#### USA COIL & AIR

# AT A GLANCE



# **ABOUT US:**

USA Coil & Air is one of the largest and oldest replacement coil companies in our industry. Over the years, we have developed other great lines of HVAC equipment to include direct drive and belt drive fan coil units, central station units with emphasis on the replacement market as well as fluid coolers, remote air-cooled condenser and tube bundles.

Every one of our lines is specific to the requirements of the replacement market. You will find that we make this process simple and easy. We have expedited schedules for all of our equipment and know how to deal with existing facilities and the problems related to shipment and delivery. We also pride ourselves with great application engineering so that you don't replace equipment without having a true understanding of why the original might have failed and what can be provided in replacement to increase longevity.



#### SATISFIED CUSTOMERS

USA Coil & Air has one of the highest return customer rates in the coil replacement industry



# SERVICES (

- On-site Evaluations
   & Measurement
- National Rep Network
- Coil & Equipment Selection & Sizing Assistance
- Technical Support
- Exceptional
   Customer Service
- Superior Crating & Freight Services



**NPPLICATIONS** 

- Hospital & Medical Facilities
- Apartments & Condominiums
- Hotel Space
- Military Locations
- Schools & Universities
- Industrial Space
- Office Buildings
- Shopping Centers
- Government Facilities
- Pharmaceutical
- Data Centers
- Retail Centers
- Supermarkets

FOUNDED IN 1984

#### **NOTABLE PROJECTS:**

CHICAGO - O'HARE AIRPORT • NYC POST OFFICE • MAYO CLINIC • NYU MEDICAL CENTER **BRISTOL MYERS-SQUIBB** PRATT-WHITNEY **PRINCETON** UNIVERSITY NJ TURNPIKE AUTHORITY · COCA COLA COMPANY · DISNEY WORLD · FRITO LAY INC. • DUPONT . TOYOTA MARRIOTT PFIZER, GENERAL **ELECTRIC** ARGONNE NATIONAL LABS · LOCKHEED MARTIN · GEORGIA PACIFIC · NESTLE TESLA MOTORS • TEXAS INSTRUMENTS • SUNY STATE UNIVERSITY OF NY • SIEMENS



Whether you need replacement coils for an existing HVAC/Heat exchange system or a totally new design, we have the expertise and the equipment to meet your needs. Standard and custom designs available. Our cutting-edge coil sizing/selection program is the most intuitive and "easy to use" sizing software in the industry. Our software quickly generates performance charts and drawings to match your specification needs!



# **EXISTING COIL REPLACEMENT**

USA Coil & Air can help with replacement of all major OEM manufactured coils, including, but not limited to: Carrier, Trane, McQuay, York, Heatcraft, Aerofin, American - Standard, Bohn, Colmac, Marlo, and more.



# **QUICK SHIPMENT**

We have decades of design and manufacturing experience in the coil and air handling business and we can get you the products you need fast. The USA Coil & Air Quick Ship Program will guarantee you can meet deadlines. Most coils can be built on our five or ten working day expedited Schedule. In emergencies, some coils can be built in as little as one day.



# **PROTECTIVE COATING**

We use "Fin-KOTE", an 8th generation E-Coat designed for extreme environments. This coating has a high-edge build for improved life, high flexibility for bending and improved handling, and corrosion protection. Immersion E-Coat provides a complete, uniform coating, even in corners, on edges, and in hard to reach spaces. The applied coating contains very little water, which virtually eliminates runs or sags, allowing parts to be handled almost immediately.

# FLUID COILS CUSTOM AND OEM REPLACEMENT





Tubes and return bends are constructed from seamless UNS C12200 copper conforming to ASTM B75 and ASTM B743. Properties shall be O50 light annealed, with a maximum grain size of 0.040mm. Tubes are mechanically expanded into plate fins for maximum heat transfer.



#### **COIL FINS**

Secondary surface fins are of the plate-fin design using aluminum or copper with die-formed collars. The fin design for 5/8" and 1/2" O.D. tubes are flat, waffle, or sinewave in a staggered tube pattern to meet performance requirements. The fin design for 3/8" O.D. tubes is to be flat, louvered, or sinewave in a staggered tube pattern to meet performance requirements. The collars hold fin spacing at a specified density and cover the entire tube surface. The aluminum properties are Alloy 1100 per ASTM B209, with O (soft) temper. The copper is Alloy 11000 per ASTM B152-06 with soft (anneal) temper. The fins are free of oils and oxidations.



#### **AHRI CERTIFICATION**

Fluid coils are designed with 1/2" or 5/8" tubes and are performance certified with the AHRI symbol. Any coils that fall outside the scope of AHRI Standard, or the manufacturer's rating program are acceptable due to the manufacturer being a member of the AHRI coil certification program. All coils are rated in accordance with the AHRI Standard 410.

FLUID COILS			
MATERIAL	MATERIAL STANDARD OPTIONAL		
Fin	Aluminum	Copper, Stainless Steel	
Casing	16 Ga. Galv. Steel	12,14 and 18 Ga. Galv. Steel 12, 14 and 16 Ga. 304 & 316 Stainless Steel 14 Ga. Aluminum	
Connection	Copper	Steel, Red Brass	
Tube	Copper	Stainless Steel, Cupro Nickel, Carbon Steel	
Header	Copper	Stainless Steel, Cupro Nickel, Carbon Steel	



Coils are tested at 550 PSIG using dry nitrogen, submerged under water. The coils are verified leak-free via dual-operator verification. Coils are designed for 390+ PSIG working pressure (based on tube and header OD) and guaranteed up to 200° F working temperature.



#### **COIL HEADERS**

Standard headers are constructed of seamless UNS C12200, Type-L-copper material sized to match specified connection size. The headers have finished integral spin-closed ends designed to withstand test pressure, and 1/4" vents and drains are provided for all fluid coils unless otherwise specified.



Coil casing material are of G90-galvanized steel, 16-gauge minimum. Heavier gauge and optional material casings are available as required. Intermediate tube supports are are provided on all coils 50" fin length or longer. Coil casings on top and bottom of coils have double-flange construction, allowing for vertical stacking of coils.

		<b>FLUID COIL</b>	S	
TUBE	STANDARD	OPTIONAL	STANDARD	OPTIONAL
O.D.	WALLTH	ICKNESS	FINTHI	CKNESS
3/8"	.014	.016 .022	.006	.0075
1/2"	.016	.025	.006	.0075 .010
5/8"	.020	.025 .035 .049	.006	.0075 .010

\*Products and specifications are subject to change without notice

# STEAM COILS CUSTOM AND OEM REPLACEMENT





Tubes and return bends are constructed from seamless UNS C12200 copper conforming to ASTM B75 and ASTM B743. Properties are O50 light annealed, with a maximum grain size of 0.040mm. the tubes are mechanically expanded into plate fins for maximum heat transfer. Minimum wall thickness: .025 for performance longevity.



Coils are tested at 550 PSIG using dry nitrogen, submerged under water. Dual-operator verification shall determine coils are leak free. The coils are designed to withstand 150 PSIG saturated steam supply pressures and guaranteed up to 400° F working temperature.



Secondary surface (fins) are of the plate-fin design using aluminum or copper, with die-formed collars. The fin design is flat, waffle, or sine-wave in a staggered tube pattern to meet performance requirements. Fins are free of oils and oxidations. Collars will hold fin spacing at specified density and cover the entire tube surface. Aluminum properties are to be Alloy 1100 per ASTM B209, O (soft) temper. Copper is to be Alloy 11000 per ASTM B152-06 with soft (anneal) temper.



Standard headers are constructed of seamless UNS C12200, Type-L-copper material sized to match specified connection size. All end closures are designed to withstand test pressure. Headers for steam distributing coils have die-formed end caps brazed on the inside of the headers. Headers for standard steam coils have finished integral spin-closed ends.



All steam coils are to be AHRI performance certified and bear the AHRI symbol. Coils outside the scope of AHRI's standard rating conditions or the manufacturer's certification program will be acceptable since the manufacturer is a current member of the AHRI coil certification program, and all coils will be rated in accordacne with AHRI Standard 410.

STEAM COILS			
MATERIAL STANDARD OPTIONAL		OPTIONAL	
Fin	Aluminum	Copper, Stainless Steel	
Casing	16 Ga. Galv. Steel	12,14 and 18 Ga. Galv. Steel 12, 14 and 16 Ga. 304 & 316 Stainless Steel 14 Ga. Aluminum	
Connection	Copper	Steel, Red Brass	
Tube	Copper	Stainless Steel, Cupro Nickel, Carbon Steel	
Header	Copper	Stainless Steel, Cupro Nickel, Carbon Steel	



Coil casing material are of G90-galvanized steel, 16-gauge minimum. Heavier gauge and optional material casings are available as required. Intermediate tube supports are are provided on all coils 50" fin length or longer. Coil casings on top and bottom of coils have double-flange construction, allowing for vertical stacking of coils.

STEAM COILS					
TUBE	STANDARD	OPTIONAL	STAN	DARD	
O.D.	WALLTH	ICKNESS	FIN THI	CKNESS	
5/8"	.025	.035 .049	.006	.0075 .010	
1" (SD ONLY)	.035	.049	.010	N/A	

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# CONDENSER COILS CUSTOM AND OEM REPLACEMENT





Tubes and return bends are constructed from seamless UNS C12200 copper conforming to ASTM B75 and ASTM B743. Properties are O50 light annealed, with a maximum grain size of 0.040mm. Tubes are to be mechanically expanded into plate fins for maximum heat transfer.



Secondary surface (fins) are of the plate-fin design using aluminum or copper, with die-formed collars. The fin design is to be flat, waffle, or sine-wave in a staggered tube pattern to meet performance requirements. Collars will hold fin spacing at specified density, and cover the entire tube surface. Aluminum properties are to be Alloy 1100 per ASTM B209, O (soft) temper. Copper is to be Alloy 11000 per ASTM B152-06 with soft (anneal) temper.



Coils are UL recognized as Refrigerant Containing Component. Coils that are to be used with refrigerant R-410A have undergone cycle testing and shall be safely listed with up to a 750 PSIG rating.

CONDENSER COILS			
MATERIAL	STANDARD	OPTIONAL	
Fin	Aluminum	Copper, Stainless Steel	
Casing	16 Ga. Galv. Steel	12,14 and 18 Ga. Galv. Steel 12, 14 and 16 Ga. 304 & 316 Stainless Steel 14 Ga. Aluminum	
Connection	Copper	N/A	
Tube	Copper	N/A	
Header	Copper	N/A	



Coils are tested at 550 PSIG using dry nitrogen, submerged under water. Dual-operator verification shall determine that all coils are leak free. Coils are certified to withstand up to 750 PSIG working pressure (based on tube and header OD). Coils are shipped with nitrogen charge to verify leak-free integrity and to prevent moisture migration into the coil.



Standard headers are constructed of seamless UNS C12200, Type L copper material sized to match specified connection size. Headers have finished integral spin-closed ends designed to withstand test pressure.



Coil casing material are of G90 galvanized steel, 16-gauge minimum. Heavier gauge and optional material casings are available as required. Intermediate tube supports are provided on all coils 50" and longer fin length. Coil casings on top and bottom of coils have double-flange construction, allowing for vertical stacking of coils.

CONDENSER COILS				
STANDARD	OPTIONAL	STANDARD	OPTIONAL	
WALLTH	ICKNESS	FIN THI	CKNESS	
.014	.016 .022	.006	.0075	
.016	.025	.006	.0075 .010	
.020	.025 .035 .049	.006	.0075 .010	
	STANDARD  WALL TH  .014  .016	STANDARD         OPTIONAL           WALL THICKNESS         .016           .014         .022           .016         .025           .020         .035	STANDARD         OPTIONAL         STANDARD           WALL THICKNESS         FIN THICKNESS           .014         .016         .006           .016         .022         .006           .016         .025         .006           .020         .035         .006	

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# EVAPORATOR COILS CUSTOM AND OEM REPLACEMENT



Tubes and return bends are constructed from seamless UNS C12200 copper conforming to ASTM B75 and ASTM B743. Properties are O50 light annealed, with a maximum grain size of 0.040mm. Tubes are to be mechanically expanded into plate fins for maximum heat transfer.



Secondary surface (fins) are of the plate-fin design using aluminum or copper, with die-formed collars. The fin design is to be flat, waffle, or sine-wave in a staggered tube pattern to meet performance requirements. Collars will hold fin spacing at specified density, and cover the entire tube surface. Aluminum properties are to be Alloy 1100 per ASTM B209, O (soft) temper. Copper is to be Alloy 11000 per ASTM B152-06 with soft (anneal) temper.



#### CERTIFICATION

Coils are UL recognized as Refrigerant Containing Component. Coils that are to be used with refrigerant R-410A have undergone cycle testing and shall be safely listed with up to a 750 PSIG rating.

EVAPORATOR COILS			
MATERIAL STANDARD OPTIONAL		OPTIONAL	
Fin	Aluminum	Copper	
Casing	16 Ga. Galv. Steel	12,14 and 18 Ga. Galv. Steel 12, 14 and 16 Ga. 304 & 316 Stainless Steel 14 Ga. Aluminum	
Connection	Copper	N/A	
Tube	Copper	N/A	
Header	Copper	N/A	



Coils are tested at 550 PSIG using dry nitrogen, submerged under water. Dual-operator verification shall determine that all coils are leak free. Coils are certified to withstand up to 750 PSIG working pressure (based on tube and header OD). Coils are shipped with nitrogen charge to verify leak-free integrity and to prevent moisture migration into the coil.



Standard headers are to be constructed of seamless UNS C12200, Type-L-copper material sized to match specified connection size. Headers are to have finished integral spin-closed ends designed to withstand test pressure.



Coil casing material are G90 galvanized steel, 16-gauge minimum. Heavier gauge and optional material casings are available as required. Intermediate tube supports are provided on all coils 50" and longer fin length. Coil casings on top and bottom of coils have double-flange construction, allowing for vertical stacking of coils.

EVAPORATOR COILS				
TUBE	STANDARD	OPTIONAL	STANDARD	OPTIONAL
O.D.	WALL THICKNESS		FIN THI	CKNESS
3/8"	.014	.016 .022	.006	.0075
1/2"	.016	.025	.006	.0075 .010
5/8"	.020	.025 .035 .049	.006	.0075 .010

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# SENTRY GUARD BURST PROOF RELIEF CAPS

#### **APPLICATIONS:**

#### **Preheat Coils**

Steam/Hot Water- 100% outside air, where air is 40 degrees Fahrenheit or lower. The system may have built-in controls, freezstats, etc. to prevent freezing. Often, systems stop working due to the failure of these controls. The Sentry Guard™ is the "Last Line of Defense" against freezing damage, where built-in preventative freezing measures oftem fail.

#### **Chilled Water Coils**

Coils that operate during the winter may experience freezing air temperatures. he coils may be exposed to mild temperatures one day and freezing temperatures the next. Chilled water coils can be 5 to 10 times as expensive to replace as heating coils due to the increased number of rows.

#### **Make-up Air Systems**

Many applications such as kitchens, health facilities, and industrial applications require 100% exhaust. These systems work 365 days a year and any mechanical malfunction can cause heating or cooling coils to freeze.

#### **Idle Chilled Water Coils**

During the winter, chilled water coils that are not in operation need to be completely drained and/or filled with a glycol and water mixture, this process is costly and corrosive. Sentry Guard™ coils reduce the need for glycol additives. During a free ze event, the Sentry Guard™ caps will rupture to release pressure and prevent tube bursting. Upon startup in the spring, easy replacement of the caps is all that is needed to get the coils back in service.

USA Coil & Air developed this patented product over a period of four years. Extensive testing was conducted in International Falls, Minnesota with ambient temperatures as low as -30 degrees Fahrenheit. Based on this testing, USA offers a 30-month burst protection warranty on all Sentry Guard™ Coils.

#### **Benefits**

✓ Avoid whole coil replacement

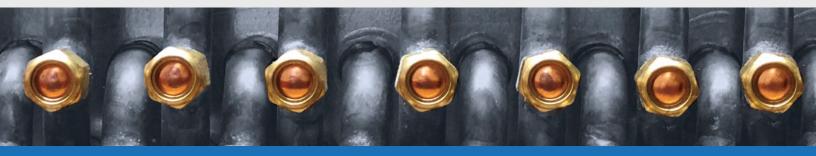
✓ Works well with steam coil systems

No changing row or circuitry arrangement

Decreases downtime from freeze damage

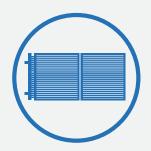
Eliminates or lowers cost of repairs

Guaranteed burst resistant





Whether you need replacement coils for an existing HVAC/Heat exchange system or a totally new design, we have the expertise and the equipment to meet your needs. Standard and custom designs available. Our cutting-edge coil sizing/selection program is the most intuitive and "easy to use" sizing software in the industry. Our software quickly generates performance charts and drawings to match your specification needs.



### **APPLICATION**

The sectional coils from USA Coil & Air are comprised of two or more sections connected by a gasketed junction plate. These coils are suitable for use with water, propylene glycol, or ethylene glycol. The coils are leak tested as an assembly at USA Coil & Air at a pressure of 150 PSIG. The maximum operating pressure recommended for these coils is 75 PSIG.



### **INSTALLATION**

Sectional coil installation should follow the same guidelines as standard water or glycol coils with the restriction that the coil is installed level with the coil ends and each section junction firmly supported. Failure to adequately support the end or the junctions may result in leaks at the junction plates. If sectional coils are to be stacked then each individual coil will need to be adequately supported, as well as the coil ends and the junction plates. It is important that the lower coils not carry the weight of the coils above.



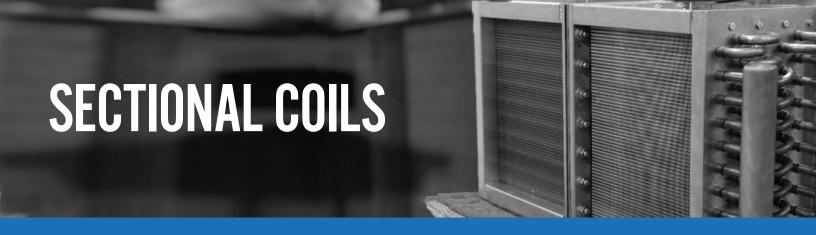
#### **ASSEMBLY**

The sectional coils will ship from the plant fully assembled when possible. This is done to ensure no damage occurs to the tube extensions at the junctions, as well as to keep contaminants from getting into the coil. Disassembly may be required at the job site.



# TOTAL SATISFACTION

USA Coil & Air will not settle for anything less than perfection. With every order protected by a warranty and backed by a team that guarantees your expectations are met; you can rest easy knowing that you're working with the best in the business.



#### STANDARD SECTIONAL COIL

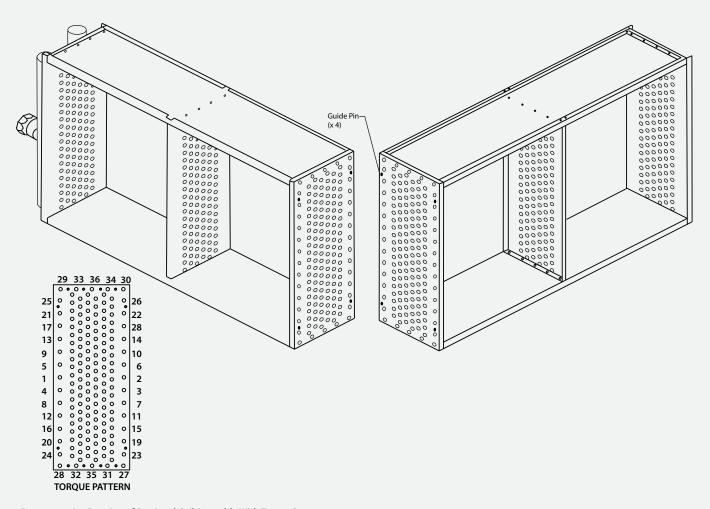


Figure 1 Representative Drawing of Sectional Coil Assembly With Torque Pattern

#### **DESIGN SPECS**

This design incorporates a front-header end and a back-return bend end that are sealed together in the middle of the length of coil. Essentially, this gives two sections that are about half the length of the original coil. There are matching tube sheets at one end of both pieces, as well as gaskets, that allow for a fluid-tight connection where the two sections meet.



USA Coil & Air offers alternative replacement condenser coils for Aaon, Carrier, McQuay, Modine, Trane and York OEM units. These microchannel replacement coils are designed as near-perfect drop-in, with easy mount brackets, higher quality material, E-coating and a 5-year limited warranty.

# **QUALITY & CRAFTSMANSHIP**



USA Coil & Air replacement coils are designed as an upgrade and improvement to the original manufacturer's heat exchangers (Microchannel or Fin/Tube type). While many OEM's use foreign made or "automotive" quality coils or thin wall fin/tube, USA Coil & Air builds in longevity. The heat exchanger upgrade feature is due to thicker tube walls, a more robust design to withstand thermal cycling, and E-Coating to assure long life corrosion protection.

As a primary supplier to major HVAC & Refrigeration Original Equipment Manufacturers, USA Coil & Air leads the industry in Microchannel Coil Design, quality, and customer service.



### PROTECTIVE COATING

We use "Fin-KOTE", an 8th generation E-Coat designed for extreme environments. This coating has a high-edge build for improved life, high flexibility for bending and improved handling, and corrosion protection. Immersion E-Coat provides a complete, uniform coating, even in corners, on edges, and in hard to reach spaces. The applied coating contains very little water, so there are no runs or sags and parts can be handled almost immediately.



## **TOTAL SATISFACTION**

USA Coil & Air will not settle for anything less than perfection. With every order protected by a warranty and backed by a team that guarantees your expectations are met; you can rest easy knowing that you're working with the best in the business.

#### **KEY FEATURES**

- USA Made High Quality
- · Proven Performance and Robust Design
- 100% Factory Leak Tested
- E-coating Protection Standard
- Thicker Tube Walls for Longer Service Life
- Low Flux Manufacturing Method Provides Lower Corrosion Potential
- Available from Stock or 5-6 weeks
- Limited Five Year Warranty
- Low Refrigerant Pressure drop for improved performance



#### IN-STOCK MODELS AVAILABLE

- Carrier 30RB & Carrier 30XA
- York YLAA & York YVAA
- Advantix OA, DH, CC, PL & RS

#### **CUSTOM BUILT REPLACEMENT MODELS AVAILABLE**

- Aaon RN030 & RN040
- Carrier RAP040
- Carrier RAP050 & RAP060
- Carrier 50P030
- McQuay RPS042
- McQuay RPS110

- York YC240 & YC300
- York ZF078 & ZF090
- York ZF120
- York J10ZF
- Modine MPR20 & MPR26
- Trane SAHL25



FinKote2 is the premium coating system for the HVAC industry. Years of ineffectual coatings in the HVAC market prompted the development of FinKote as a way to address those shortcomings. Finkote is a high edge build e-coating system that effectively coats both microchannel and tube and fin coils in AC units. Aluminum, copper, and steel coils can now be protected from corrosion, particularly in cases of high UV exposure, coastal installations, and offshore projects — anywhere with a highly abrasive environment that will cause premature wear on coils. FinKote2 is the most advanced currently available e-coat system in the HVAC industry.

FinKote2 now includes a standard 6 Year Warranty!



#### **PRETREATMENT**

Parts are cleaned and pretreated with a conversion coating to prepare the parts for electrocoating. This process guarentees a perfect final coat that is able to withstand corrosive environments where conventional coils would breakdown and fail.



## **ELECTRO-COAT**

Direct current is applied between the part and an electrode, which attracts the paint to the surface, allowing for a durable and longer lasting bond. This is optimal for part areas that cannot be painted conventionally. This process allows for a durable and longer lasting



### **RECOVERY**

Every coil and all its parts are rinsed to reclaim deposited paint solids, ensuring a perfect coating with no leftover residue or product waist. Any debris or foreign material could effect performance and result in possible system failure. Perfection and complete customer satisfaction is our number one priority.



#### **CURE**

Paint is thermally cross-linked and cured to the surface. Our curing process allows for a total dry and hardened exterior in a short period of time. With the heat application and curing process the coating will provide adequate protection and increase longevity.

Have any questions or need any additional information? Feel free to contact us - We are here to help!

# COIL COATING



Finkote2 Performance testing			
TEST	SPECIFICATION	RESULTS	
SWAAT run to fail	ASTM G85 A3	289 Days (6936 hrs)	
30 Day SWAAT + Adhesion	ASTM G85 A3, ASTM D3359	Pass, 4B	
2400 hr Cyclic corrosion + Burst	ASTM G85 A2	Pass, 2100 psi	
Water resistance	ASTM D870-09	Pass, 260 hrs, no flaking or chipping	
Chipping resistance	ASTM D3170	Pass, 7A	
Steam resistance	ASTM D714	Pass, 48 hr, #6 or better	
Humidity resistance	ASTM D2247	Pass, 600 hrs, no blistering or gloss loss	
UV & QUV resistance	ASTM G53-88, D4587, D523	1000 hrs, no loss	
Chemical resistance		48 hr immersion resistant to over 200+ chemicals	
Heat transfer		<3%	
Thickenss	ASTM 376	.8 - 1.2 mil (E-COAT) 1.8 - 4 mil (total)	
Flexibility	ATSM D4145, ATSM 522	2T, 5/8" mandrel	
Impact resistance	ASTM D2794-93	120 in. lbs, no cracking or chipping	
Adhesion	ASTM 3359	5B	

#### **ADDITIONAL TOP - COATS AVAILABLE:**





# DIRECT DRIVE HORIZONTAL & VERTICAL FAN COIL UNITS

From design-build to large project retrofit, USA Coil & Air has almost every type and size covered when it comes to direct-drive fan coil units. As one of most experienced manufacturers in the industry of the smaller, high demand units, we not only provide you with the broadest range of design options to suit your installation or exactly match a replacement, but we have your unit when you need it. Vertical and horizontal fan coils, ceiling, wall and room mounted units can be designed for most any need or requirement. Special control systems and valve packages included.



#### **VERTICAL UNITS**

Vertical units are easily installed and maintained and are great for heating and cooling in hospitals, office buildings, dormitories, hotels, and large industrial applications. They can be installed exposed or concealed with insulated removable access panels for sound control and easy maintenance.



### **HORIZONTAL UNITS**

Horizontal affordable, compact units are perfect for installation in hotels, apartments, schools, and other multi-office buildings as they take up minimal space, offering a quiet operation and simplified maintenance. Offered in a variety of designs including low silhouette styling, telescoping frames, and exposed or concealed units with removable access panels. High-static models also available.



# **VERTICAL - UTILITY / CLOSET**

High-static, high performance, ducted vertical-cased units with a choice of bottom, front, or rear return. These units are primarily used in vertical floor-mounted or hideaway applications. The unit is furred into partition walls or hidden in closets, utility rooms, and other concealed locations with a ducted discharge.



#### **COMMON APPLICATIONS**

- · Hotels and Motels
- Apartments
- Condominiums
- Hospitals & Health Facilities
- College Dormitories
- Classrooms
- Closets and Utility Rooms

#### STANDARD FEATURES

- Heavy-gauge galvanized steel cabinet insulated with 1/2" thick neoprene-coated fiberglass
- 1/2" O.D. coils with copper tube and aluminum fins
- Drain pan is powder-coated epoxy with a 1/8" thick closed-cell insulation with primary and secondary drain connections
- Coils are 100% underwater pressure tested to 350 PSI with a 300 PSI working pressure
- Three speed, 115/1/60 PSC motor with quickconnect plug



- Controls and motors are factory-wired and terminated in a junction box for single-point power supply
- One-inch fiberglass, throwaway filter
- Individually tagged, crated and shipped as scheduled for installation
- ETL and AHRI certified

#### **CUSTOM OPTIONS**

Soft-white, powder-coated e poxy cabinet	Cabinet – Deluxe, Front-Discharge, Flush, Recessed and custom colors	Different Grilles Patterns
Drain pans – stainless-steel, and double-wall	Controls – wide selection of factory-mounted valves and controls	ECM Motors
Insulation – fiberglass, foil-face, elastomeric and double-wall (solid and perforated) in ½" and 1" thicknesses	Mixing Boxes	Ultraviolet Lights
Coils – copper fins/tubes, phenolic-coated, stainless-steel end plates	Filters – 2″ thick throwaway, washable and metallic	Slope top and low boy design
Systems – Two or four-pipe; Hydronic cooling/heating, Steam, Direct-expansion (DX) and/or Electric Heat	Electric Strip Heat from 1 to 9 kW	



When the application calls for cooling capacities or external static pressures that cannot be met with standard, high-performance direct-drive fan coil units, or large central-station units, the belt-drive air handlers are the perfect economical fit. They are great for straight forward hroizontal or vertical applications with a simple design. If the space requires less than 1.5" of external sstatic pressure for the fan or the ductwork, the belt-driven air handler fits the bill.



### **UNIT TYPES**

- Light to medium-duty
- Up to 1.5" external static pressure
- Ranging from 800 to 12,000 cfm (2 30 tons)
- Two or four-pipe, Hydronic cooling/heating,
   Steam, Direct-Expansion (DX) and/or Electric Heat
- Galvanized steel or painted cabinets
- Horizontal or vertical configurations



# **HORIZONTAL & VERTICAL**

The horizontal and vertical belt drive units offer an economical, well-constructed, and efficient alternative to a larger, more expensive central-station air handler. These draw-through designs are available for indoor applications and are equipped with blowers that can handle high static applications. Multiple designs are available for both concealed and exposed units with access doors on both sides, for easy maintenance and cleaning.



## **QUICK SHIPMENT**

We have decades of design and manufacturing experience in the coil and air handling business, we provide you with your products fast. The USA Coil & Air Quick Ship Program will guarantee you can meet deadlines. Our Belt-Drive Air Handling Units ccome with standard shipping of seven to 12 weeks with expedited shipments of two, four, and six weeks Availability is limited based on design, size, and materials.

# BELT DRIVE SINGLE WALL AIR HANDLERS

**FEATURES & APPLICATIONS** 



#### **COMMON APPLICATIONS**

- Hotels
- Apartments
- Condominiums
- Hospitals & Health Facilities
- Nursing Homes
- Office Buildings
- Military Locations

- Government Facilities
- Schools & Universities
- Shopping Centers
- Pharmaceutical Centers
- Industrial



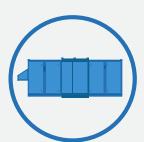
#### **STANDARD FEATURES**

- Heavy-gauge galvanized steel cabinet insulated with 1/2" thick neoprene-coated fiberglass
- 1/2" O.D. coils with copper tube and aluminum fins
- Drain pan is powder-coated epoxy with a 1/8" thick closed-cell insulation with primary and secondary drain connections
- Coils are 100% underwater pressure tested to 350 PSI with a 300 PSI working pressure
- Controls and motors are factory-wired and terminated in a junction box for single-point power supply
- · Two-inch, throwaway filter
- Individually tagged, packaged and shipped as scheduled for installation
- · ETL and AHRI certified
- Belt-driven, draw-through design with forward-curved and dynamically balanced blowers

CUSTOM OPTIONS				
Soft-white, powder-coated epoxy cabinet	Cabinet – deluxe, weatherproof, double wall and Top or Bottom Supply	Different grille patterns		
Drain pans – stainless-steel, and double-wall	Controls – wide selection of factory-mounted valves and controls	Motors – severe-duty, high-temp, ODP, TEFC; 115, 208, 230, 277, 460, 575 voltages		
Insulation – fiberglass, foil-face, elastomeric and double-wall (solid and perforated) in ½" or 1" thickness	Mixing boxes - with dampers, modulation and three position econmizers	Ultraviolet lights		
Coils – copper fins/tubes, phenolic-coated, stainless-steel end plates	Filters – washable, metallic and V-bank	Custom paint		
Systems – two or four-pipe; hydronic cooling/heating, steam, direct-expansion (DX) and/or electric heat	Electric resistant heaters from 1 to 65kW	Condensate float switch Condensate pups		



USA Coil & Air has been an industry leader in building air handlers for replacement and add-on applications for decades. We bring a proven unit design and the newest technology to deal with the special requirements of the existing facility. Matching existing footprints, shipment and job site breakdown allows even the tightest units to be replaced. Many times an antiquated design can be replaced rather than refurbishing the existing one. USA Coil & Air can create the perfect fit.



### **UNIT TYPES**

- Indoor & Outdoor Units
- Medium to Heavy Duty
- Standard Double Wall
- Ranging from 1,500 to 50,000 cfm
- Blow-Through, Draw-Through, Cooling and Heating Only, Ventilation Only, and Multizone



# **TOTAL SATISFACTION**

USA Coil & Air will not settle for anything less than perfection. With every order protected by a warranty and backed by a team that guarantees your expectations are met; you can rest easy knowing that you're working with the best in the business.



# **QUICK SHIPMENT**

We have decades of design and manufacturing experience in the coil & air handling business. We provide you with your products fast. The USA Coil & Air Quick Ship Program will guarantee you can meet deadlines.

Standard Ship: 7-12 weeks

Expedited Ship: 2-3 & 4-5 weeks (availability limited, based on design, size, and materials)

# **MODULAR AIR** HANDLING UNITS

#### **COMMON APPLICATIONS**

- Hospitals
- Government Facilities
- Office Buildings
- Schools

- Supermarkets
- Power Plants
- Warehouses
- Retail Centers



#### **STANDARD FEATURES**

- Custom Modular Design
- Double-Wall Construction
- Lightweight Foam-Injected Panels
- Preheat Coil Access Between Coils
- Extended Coil Connections

- Easy Access to Fan/ Motor and Drive
- Gasketed Frame Channel Construction
- Low-Leak Dampers
- Double-Slope Drain Pans

CUSTOM OPTIONS			
	INDOOR & OUTDOOR UNITS		
Variable incremental feature for flexible cabinet sizing	Integral face bypass dampers	Galvanized or painted cabinet	
Multiple section depths	Energy recovery sections	Variable base rail heights	
Various casing and drain pan materials	Flushed-mounted filter gauge	Electric heaters	
Mixing boxes / economizers	Hinged access doors with full grip handles	Ultra violet lights	
Sound attenuators	Starters and inverters (VFDs)	Multiple face areas per unit	
Multiple blower options	Humidifier manifold	Multiple section, curb-ready base	
Filters in side load and or / front-loading configurations	Sections to accommodate special components	Single piece, utilized curb-ready base	
HEPA filters in final location	Disconnect switches	Variable height roof curbs	
Gas-phase filtration	Blenders and air mixers	Variable depth piping vestibules	



Our fluid coolers and remote air-cooled condenser line of horizontal and vertical units have been designed to meet the needs of the new installation market while having various options for the replacement market. The environment and application should be considered to ensure the appropriate cooler or condenser unit is installed. We have alternative materials for casings and frames with unlimited coil options to include corrosive resistant coatings.



#### **UNIT TYPES**

- Horizontal & Vertical Series
- Inline & Double Fan Configurations
- 1 to 14 Fan Sizes
- Direct Drive
- Galvanized Steel Construction (G90 Frame & Cabinet)



#### **APPLICATIONS**

- Supermarkets
- Commercial Refrigeration Warehouse/ Distribution
- Power Plants
- Air Conditioning Systems



# **QUICK SHIPMENT**

We have decades of design and manufacturing experience in the coil and air handling business. We provide you with your products fast. The USA Coil & Air Quick Ship Program will guarantee you can meet deadlines.

Standard Ship: 4-5 weeks

Expedited Ship: 1-2 weeks (availability limited based on design, size, and materials)



#### STANDARD FEATURES

- 3/8" and 1/2" O.D. copper tubes with aluminum fins
- 5/8" O.D. copper tubes also available for fluid coolers
- · Two section manifolding for dual fan width units
- ETL listed
- High efficiency aluminum fan blades and welded steel hubs
- TEAO VFD compatible low RPM motors
- 12 gauge motor rails
- NEMA 3R weatherproofing enclosure with easy access
- Units tested at 550 PSIG remote condensers tested with nitrogen charge and shipped with nitrogen holding charge
- Fully baffled fan sections
- · Venturi formed panels for optimum air flow

OPTIONAL FEATURES			
(Some features apply to remote condensers only)			
Variable fin per inch selection aimed at cleanability and higher efficiency	Control terminal blocks		
Numerous multi-circuit and sub-cooling capability	Heavy duty tube and fin construction		
Head pressure or ambient temperature fan cycling controls	Baked on corrosion resistant coatings		
Individual or paired motor fusing	Polyester coated fin stock		
Fused / Non-fused disconnect switch	Stainless steel cabinet		
24V or 120V Control Circuits	Extended height legs for better ground clearance		



USA Coil & Air is one of the largest and oldest replacement coil companies in the industry. Over the years we have developed quality lines of HVAC equipment and pride ourselves on the superior customer service and satisfaction that you won't find anywhere else. Whether you need replacement parts of existing systems or a totally new system designed to perform the way you want, we have the equipment and staff to meet the application needs. or something along those lines.



## **CUSTOM PRODUCT**

Whatever your coil needs, we can build it! At USA Coil & Air we pride ourselves in being the oldest and largest replacement business in the industry. Our staff of experts have decades of custom coil and HVAC experience that has helped customers get their new or existing HVAC systems up and running faster than our competition.



# **QUICK SHIPMENT**

Being one of the oldest companies in the industry has its perks. If you have a tight deadline and time is of the essence - we can deliver. We are able to meet the toughest deadlines while maintaining a quality that is unmatched by any other.



### TOTAL SATISFACTION

USA Coil & Air will not settle for anything less than perfection. With every order protected by a warranty and backed by a team that guarantees your expectations are met; you can rest easy knowing that you're working with the best in the business.

# 

- The products you need tailored to your specs and shipped when you need them
- System and coil failure analysis
- Extensive OEM designs
- Modular air Handling unit easy install
- Perfect retrofit for todays air handling
- All central station air handlers available shipped in sections
- Warranty protected and satisfaction guaranteed
- Made to your order
- Tracking available
- Premium shipping

SHIPPING SCHEDULES			
EQUIPMENT	DESCRIPTION	STANDARD SHIPMENT	EXPEDITED SHIPMENT
Duct Booster Hot Water Coils	1/2", 5/8" Flanged Or Slip and Drive	3-5 Work Day (qty. up to 10) 2-3 Weeks (More than 10)	Request Availability
Insulated Coil Section with Integrated Drain Pan	Coil sections DX or Chilled Water Single or Double Wall	4-5 Weeks for Single Wall 8-10 Weeks for Double Wall	Request Availability
New and Replacement Steam, HW, CW, DX, and Condenser Coils	3/8", 1/2", 5/8" & 1" Copper Tube/ Alum/Copper Fin Galv./SS Casing	4 Weeks	5 & 10 Working Days (Check with Large Orders) 2 & 3 Work Day (Based on Materials in stock)
Industrial Coils	Aluminum, SS, Carbon Steel and Cupro Nickel	4-8 Weeks (Based on materials)	Request Availability
Coatings	"Fin-Kote" Electrocoating	Add 1-2 Weeks to Coil Shipments	Request Availability
Replacement Tube Bundles	U TUBE & Straight Tube, Steam Water, Water Water, Alt. Materials	Add 1-2 Weeks (Some alternative materials may add longer lead times)	Request Availability
Shell & Tube Heat Exchangers	U TUBE & Straight Tube, Steam Water, Water Water, Alt. Materials	Add 3-4 Weeks (Some alternative materials may add longer lead times)	Request Availability (Based on materials in stock)
Direct Drive Units - Fan Coil Units	Horizontal Ceiling Vertical Wall Concealed & Exposed	7-12 Weeks (Varies during year)	2-4 Weeks (Varies during year)
Direct Drive Fan Coil Units	Vertical Utility / Closet	7-12 Weeks (Varies during year)	2-4 Weeks (Varies during year)
Belt Drive Air Handling Units	Single Wall 600-12000 CFM Horizontal and Vertical	7-12 Weeks	2-4 Weeks (Availability limited based on size and materials)
Central Station Air Handling Units Indoor	Double Wall, Multi-Zone, Variable Sizing Horizontal & Vertical	7-12 Weeks (Varies during year)	2-3 Weeks 4-5 Weeks (Availability based on design, size & material)
Central Air Handling Units Outdoor	Double Wall Variable Sizing with or without curb	7-12 Weeks (Varies during year)	2-3 Weeks 4-5 Weeks (Availability based on design, size & material)
Fluid Coolers and Remote Air Cooled Condensers	Direct Drive Single Fan to 12 Fan Design	4-5 Weeks	Request Availability (Based on materials in stock)



# **OUR STORY**

USA Coil & Air is one of the largest and oldest replacement coil companies in the industry. Over the years, we have developed other great lines of HVAC equipment to include direct drive and belt drive fan coil units, central station units with emphasis on the replacement market as well as fluid coolers, remote air-cooled condensers and tube bundles. Every product line is specific to the quick shipment and requirements of the replacement market, and we make the shipment process simple and easy. We have expedited schedules for all our equipment and know how to deal with existing facilities and the problems related to shipment and delivery. We also pride ourselves with great application engineering so that you don't replace equipment without having a true understanding of why the original might have failed and what can be provided in the replacement to increase longevity.

