

# FLUID COILS

New & Replacement

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 are available. Our cutting edge coil sizing/selection program is the most intuitive and easy to use sizing software application in the industry. Our software quickly generates performance charts & drawings to match your specification needs.

# **EXISTING COIL REPLACEMENT**

USA Coil & Air has an extensive library of OEM designs and can help with the 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 OPTIONS**

USA Coil & Air applies more than 50 years of design and manufacturing experience in the coil and air handling business along with a sincere dedication to providing you with the right products fast. The USA Coil & Air Quick Ship Program helps assure that you can meet deadlines. All our coils can be built on our 5 or 10 working day Expedited Schedule. Under emergency circumstances, some coils can be built in as little as 1 day.



# **COATING AVAILABILITY**

USA Coil uses "Fin-KOTE", an 8th generation E-Coat designed for extreme environments, with high edge build for improved life, high flexibility for bending and improved handling, and corrosion protection like no other coating can provide. Corrosion resistance is superior to other coating application methods because immersion E-Coat provides a complete, uniform coating – even in corners, on edges and in hard to reach, partially enclosed spaces. Because the applied coating contains very little water, there are no runs or sags and parts can be handled almost immediately. Consistent, controlled application without spray gun error nearly eliminates the need for manual touch ups.



# SENTRY GUARD™ BURST RESISTANT COILS

Patented burst resistant design guarantees against freeze damage. Developed by USA Coil & Air, Sentry Guard™ addresses the need for freeze protection by providing internal pressure relief well before catastrophic damage occurs. Our Sentry Guard™ plugs can be manufactured with any new or replacement coil that handles water or steam.

If you have a system that is prone to freezing or it is very important it never be down then Sentry Guard™ series coils from USA should be your go-to choice.



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## **MATERIALS & SPECIFICATIONS**

Our chilled and hot water coils are offered in same or opposite end designs with a wide choice of tube, fin and material options along with multiple circuitry availability. All coils are constructed with plate fins and seamless tube construction.



#### **TUBES**

Seamless copper tubes shall be mechanically expanded into plate aluminum or copper fins to form an everlasting bond between primary and secondary surfaces. Tubes are to be mechanically expanded into fins (secondary surface) for maximum heat transfer.



#### **CASING**

Coil casing material shall be galvanized steel at a 16 gauge minimum. Heavier material, stainless steel, copper or aluminum casings are available as required.

Intermediate supports are required every 42" of finned length and shall be bolted to top and bottom casing channels. Coil casings on top and bottom of coils are to have double-flange construction, allowing for vertical stacking of coils.



#### **FINS**

Secondary surface (fins) shall be of the plate-fin design using aluminum or copper, with die-formed collars. Fin design 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. Fins are to be free of oils and oxidation.



#### **PRESSURE TESTING**

Coils shall be tested at 550 psig using dry nitrogen, submerged under water. Dual-operator verification shall determine that all coils are leak-free.

Fluid coils are guaranteed up to a maximum 300° F operating temp, and 250 psig maximum operating pressure.



#### **HEADERS**

Headers (manifolds), if required, shall be constructed of a minimum .060" wall seamless copper. Die-formed copper end caps are brazed on the inside of the headers, and rounded so as to prevent excessive pressure drop. (Unless spunclosed — for sizes up to 1-3/8") All coils shall be provided with 1/4" vents and drains.



### **CERTIFICATION**

All fluid coils designed with 1/2" or 5/8" tubes are to have ARI Standard 410 certification and shall bear the ARI symbol. Coils outside the scope of ARI's standard rating conditions or certification program will be acceptable to ARI since USA Coil is a current member of the ARI coil certification program, and coils will be rated in accordance with the ARI Standard 410.



#### **CONNECTIONS**

Connection is to be sweat type (SWT), MPT or FPT Grooved or flanged as required.

FLUID COILS (HW & CW)					
Standard / Base in <b>Bold</b> Below					
Tube O.D.	Tube Thick	Optional Tube	Fin Thick	Optional Fin	
3/8"	.014	.016 .022	.005	.006 .0075	
1/2"	.016	.025	.006	.0075 .010	
5/8"	.020	.025 .035 .049	.006	.0075 .010	

Products and specifications subject to change without notice.

FLUID COILS (HW & CW)				
	Standard	Optional		
Fin Material	Aluminum	Copper; Stainless Steel		
Casing Material	Galv. Steel 16 gauge	Galv. Steel 14 gauge Stainless Steel 16 gauge		
Connection Material	Copper	Steel; Red Brass		
Tube Material	Copper	Stainless Steel • Cupro Nickel • Carbon Steel		
Header Material	Copper	SS Tube will have SS HDR(s) • Cupro Nickel Tubes will have Cupro Nickel HDR(s) • Carbon Steel Tubes will have Carbon Steel HDR(s)		





