COILS

HVAC & Industrial Systems

P.O. Box 956
Paoli, PA 19301
(800) 523-7590
FAX (610) 251-0805
www.coilcompany.com

YOU HAVE A DIRECT LINE TO US!

COMMERCIAL COILS
INDUSTRIAL COILS
REPLACEMENT COILS
NEW APPLICATIONS

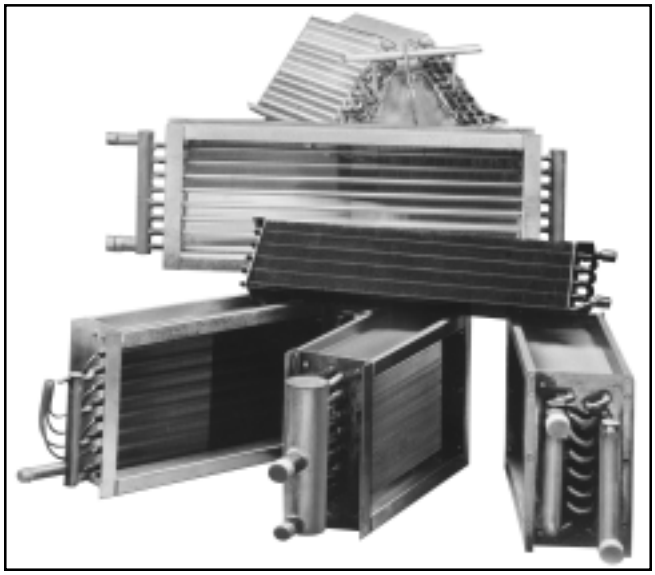
When it comes to building coils for any application Coil Company has the capability to meet your requirements. If you need a cooling or heating coil using water, steam, refrigerant or any other medium, Coil Company can build it for you. We build coils for replacement of existing coils or for new jobs, as well. We make standard copper tube / aluminum fin commercial coils and we build heavy industrial coils for process applications. You will be hard-pressed to come up with a job we can't handle.

Commercial Coils

The vast majority of coils that we build are for replacement of existing coils. Tube diameters vary from 3/8", 1/2", or 5/8" copper and almost all have aluminum or copper fins. Coil Company can match existing dimensions and functionally duplicate performance. Basically, all you have to do is slide out the old coil and slide in the new coil. We do all the work for you.

Industrial Coils

Some jobs require heavy duty construction and performance. Coil Company can build coils out of heavy wall copper, 90/10 cupro-nickel, carbon steel and even 304/316 stainless steel. We can build heavy duty casings, make them airtight, change fin materials, or even put coils inside boxes or transitions.



Coil Sections

Coil Company also builds coil sections for cooling coils, which are completely insulated and contain full drain pans. These units are perfect for chilled water or refrigerant coils that need to be installed in ductwork. You have access to the coils thru an access door, and can even add additional cooling and/or heating coils for supplemental cooling or dehumidification.

SPECIAL QUICK SHIP OPTIONS

Standard Ship

Almost all coils ship in 4-5 weeks as standard. There are some exceptions, based on special materials, but 95% of all coils will ship in 4-5 weeks with no premium.

10 Work Day Ship

Most coils can ship in 10 work days (2 weeks) for a premium of 15% to 25%, based on the size of the job. We guarantee that the coil will ship on time or you don't pay the additional premium.

5 Work Day Ship

For major coil emergencies, you can have your coil ship in 5 work days (1 week). The required premium for this shipment is 30% to 50%. We guarantee shipment or you don't pay the premium.

CROSS REFERENCE

Coil Company has been building replacement coils for the HVAC Industry for over 40 years. During this time, we have built up a huge library of cross reference information on coils for replacement.

There is a great possibility that we have built your coil at least once before. If you are replacing a coil built by a major manufacturer, we have a terrific chance of replicating it by the coil model number.

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COIL COMPANY

HEAT EXCHANGE • AIR HANDLING

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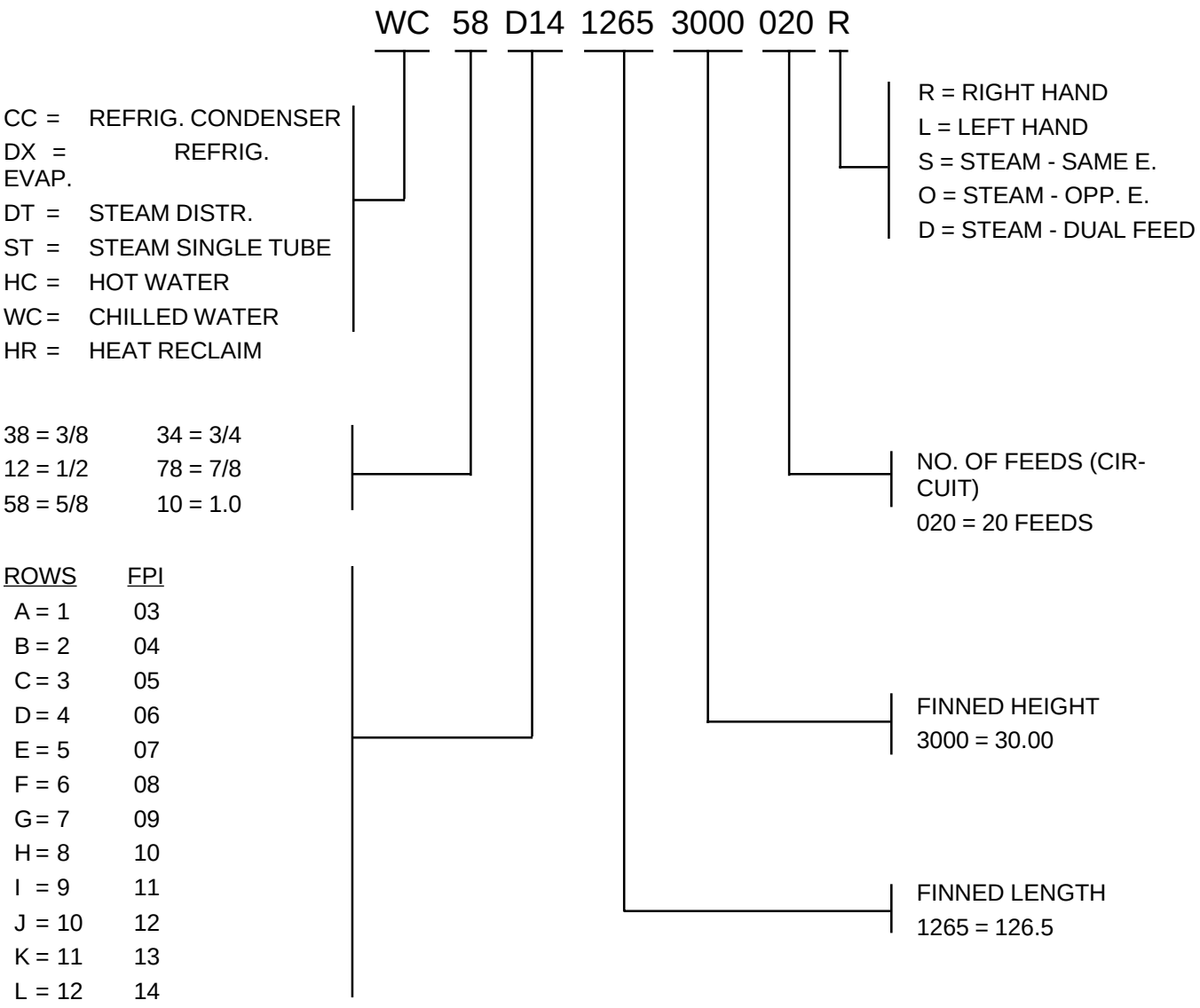
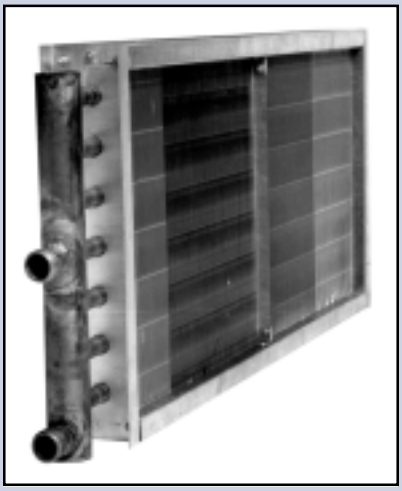
COIL SPECIFICATION

Glossary of symbols for coil order/model information



Coil casings will be plain carbon steel or zinc coated galvanized... unless specified otherwise.

STEAM COILS

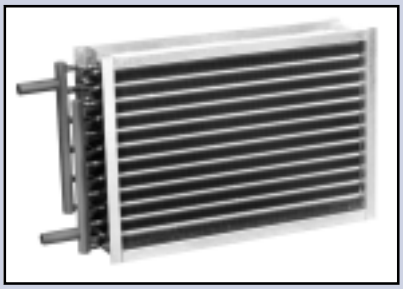


Coil Company builds both standard steam and steam distributing coils for HVAC and industrial process applications. Standard steam coils are used when entering air temperatures are 40ºF or above, and are constructed of 5/8” OD tubes. Tube thickness can vary from .025” wall to .049” wall, depending on the duty and steam pressure. Industrial applications might require 90/10 cupro-nickel or even steel or stainless steel tubes. The design of any steam coil is important, because it is imperative that condensate not collect in the coil. Most standard steam coils are opposite end connected and pitched within the casing to expedite condensate removal. It’s also possible to build same end standard steam coils.

Steam distributing coils are tube within a tube design and are often referred to as “non-freeze” coils. This really is a misnomer, because under the right conditions, you can freeze any type of coil. Steam distributing coils are generally used when entering air temperatures to the coil are 40ºF or below. Steam distributing coils can be manufactured in 5/8” OD w/ 3/8” inner tube or 1” OD w/ 5/8” inner tube. Steam is distributed down the inner tube and released periodically to the outer tube where it is returned to the discharge header. The steam and condensate are distributed evenly across the face and tubes of the coil, and the steam in the inner tube keeps the condensate in the outer tube from freezing. 5/8” tubes can be .025” or .035” wall copper and 1” tubes can be .035” or .049” wall copper. When you have an application that requires a lot of outside air or very low air temperatures, you will generate lots of condensate (lbs./hr). Always use a 1” steam coil for preheat applications of this type, because there is more room between the outer and inner tube to evacuate the condensate.

COIL COMPONENTS	STEAM COIL CONTRUCTION
Tubes	5/8" OD or 1" OD copper, 90/10 cupro-nickel, steel or stainless steel
Tube Thickness	.025", .035", .049", .065" (Steel only)
Fins	Aluminum or copper
Fin Thickness	.006", .008", .010"
Casing	Galv. steel, stainless steel, aluminum, copper
Rows	1 or 2 (5/8"), 1 (1")
Connections	Copper, steel, stainless steel (MPT, FPT, Flanged)
Fin Surface	Corrugated or flat

HOT WATER/CHILLED WATER COILS



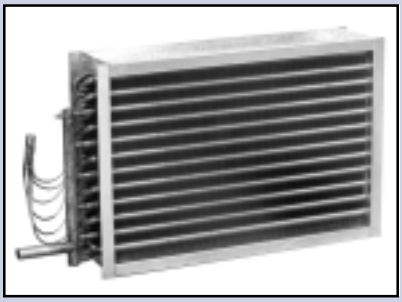
Coil Company has been a leader in the design of water coils for over 40 years. We build both hot water and chilled water coils for a wide variety of applications and duties. Coil Company builds 1 or 2 row hot water coils or 3 thru 12 row chilled water coils for both HVAC or process type jobs. The construction for any water coil is basically the same, except that hot water coils generally do not exceed 1 or 2 rows, while chilled water coils are required to be deeper and are usually 3 thru 12 rows.

Coil Company is totally flexible in the design of water coils. We offer a wide range of circuiting patterns, fin spacings, rows and connection arrangements. The perfect coil design balances high efficiency performance with acceptable waterside and airside pressure drops. Coil Company engineers have a wealth of experience and will be pleased to assist you in achieving this balance of pressure drops and good performance. As always, we offer a wide variety of quick ships on any of our water coils.

In addition, Coil Company builds glycol coils for ethylene or propylene. Many of these applications are for process or heat recovery applications.

COIL COMPONENTS	WATER COIL CONTRUCTION (GLYCOL)
Tubes	3/8", 1/2", 5/8" OD copper
Tube Thickness	.016", .020", .025", .035", .049"
Fins	Aluminum or copper
Fin Thickness	.006", .008", .010"
Casing	Galv. steel, stainless steel, aluminum, copper
Rows	Hot water 1 or 2, chilled water 3-12
Connections	Copper, steel, stainless steel (MPT, FPT, Flanged)
Fin Surface	Corrugated or flat

DX EVAPORATOR COILS

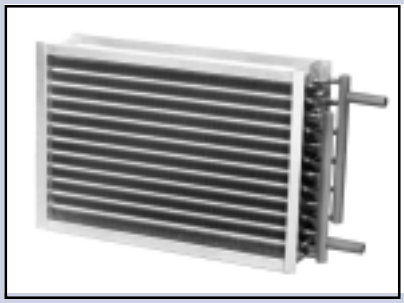


Coil Company builds DX evaporator coils with the widest range of circuiting control and splits available in the industry. DX Coils are often used in Air Handlers or built up systems or just stand alone in ductwork. Often, multiple compressors are connected to the same DX coil and require capacity control. Coil Company uses a unique intertwined circuiting arrangement to allow use of the full face area for distinct uniform refrigerant distribution. In addition, you can also select from face splits or row splits for 2, 3, or even 4 compressors on the same coil.

Our DX coils are available in 1/2” or 5/8” OD copper tubes with a pre-selected distributor based on the coil load and refrigerant used. As always, special quick ships are available on any coil that could be selected. Coil Company engineers are especially adept at figuring out performance for difficult systems.

COIL COMPONENTS	DX EVAPORATORCOIL CONSTRUCTION
Tubes	1/2" OD or 5/8" OD copper, stainless or carbon steel
Tube Thickness	.016, .020", .025", .035", .049"
Fins	Aluminum or copper
Fin Thickness	.006", .008", .010"
Casing	Galv. steel, stainless steel, aluminum, copper
Rows	2 thru 12
Connections	Copper SWT, distributor (No exp. valve)
Fin Surface	Corrugated or flat

CONDENSER COILS



The vast majority of requests that Coil Company receives for condenser coils are to replace existing coils. Replacement condenser coils require a whole different set of criteria than other coils.

(1) Thin fin material - Fins tend to bend or be damaged during cleaning

(2) Fins too close - Fin spacing is often 14 fins/inch to 20 fins/inch. Coils easily blocked by dirt

(3) Excessive vibration - Prop fans are too close to coils and vibration causes tube sheets to cut into tubes.

(4) Electrolytic corrosion Bond -Usually found in ocean areas from salt air. between fin and tube disappears.

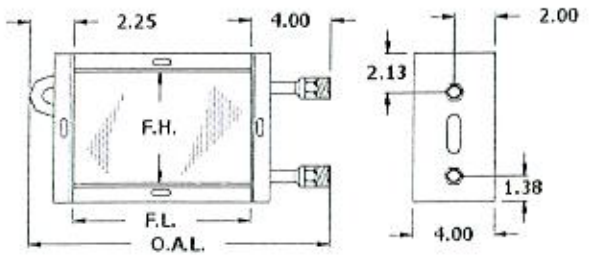
(5) General corrosion - Fins supply 70% of the heat transfer and fins are just damaged and fall apart.

Coil Company engineers have great experience in designing condenser coils that solve one or all of these problems. Simultaneously we can suggest alternative coil designs that eliminate practical problems in the field. Coil Company has seen just about every condenser coil problem that you could see over the last 40 years. We can vary tube diameter, fin thickness or fin spacing to help you solve your problem. We can coat coils or we can provide alternative materials of construction so that your condensate coils do not fail prematurely.

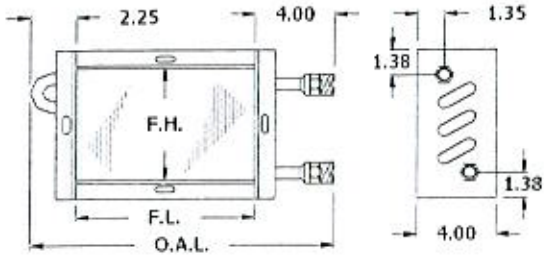
COIL COMPONENTS	CONDENSER COIL CONSTRUCTION
Tubes	3/8", 1/2", 5/8" OD copper, stainless or carbon steel
Tube Thickness	.016", .020", .025", .035", .049"
Fins	Aluminum or copper
Fin Thickness	.006", .008", .010"
Casing	Galv. steel, stainless steel, aluminum, copper
Rows	2 thru 12
Connections	Copper SWT, MPT. or Flanged
Fin Surface	Corrugated or flat

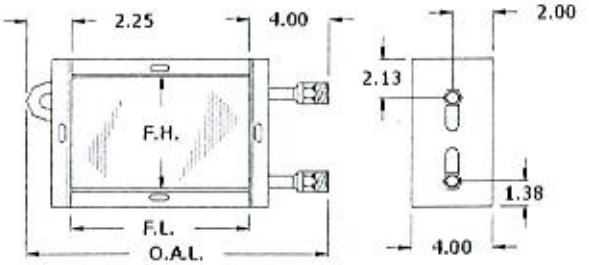
5/8" TUBE 1 AND 2 ROW BOOSTER COILS

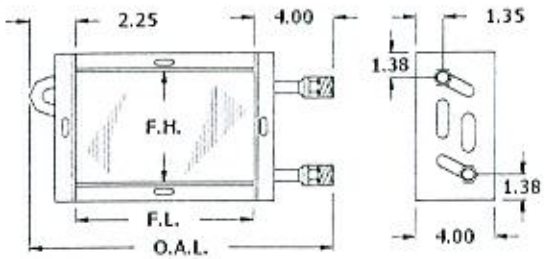
1 ROW COILS

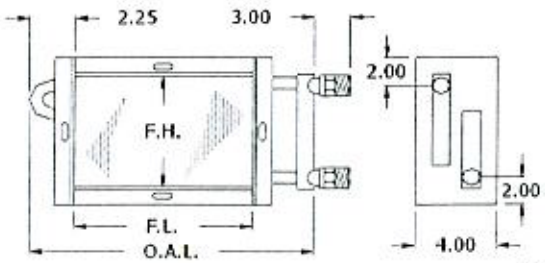


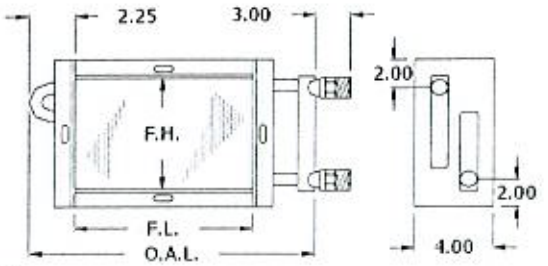
2 ROW COILS











ALL DIMENSIONS ARE IN INCHES

NON-HEADERED MODELS
OVERALL LENGTH = FIN LENGTH PLUS 6.25"

ALL COILS SUPPLIED WITH 1.00" FLANGE ALL AROUND

ALL COILS SUPPLIED WITH 1.00" X .312" SLOTS CENTER OF TOP, BOTTOM, AND SIDES

HEADERED MODELS
OVERALL LENGTH = FIN LENGTH PLUS DIMENSION FROM CHART BELOW

CONNECTION SIZE	ADD TO F.L. DIMENSION
3/4" M.P.T OR 7/8" SWEAT	6.250"
1.0" M.P.T. OR 1 1/8" SWEAT	6.500"
1.25" M.P.T. OR 1 3/8" SWEAT	6.750"
1.50" M.P.T. OR 1 5/8" SWEAT	7.000"
2.00" M.P.T. OR 2 1/8" SWEAT	7.500"

CONSTRUCTION SPECIFICATIONS

COIL TUBES - ALL COILS HAVE 5/8" O.D. COPPER TUBES WITH .020" WALL AND STAGGERED TUBE PATTERN
FINS - ALL COILS HAVE .006" THICK DIE FORMED PLATE-TYPE ALUMINUM FINS
CONNECTIONS - SUPPLY AND RETURN CONNECTIONS ARE AVAILABLE IN COPPER M.P.T. OR SWEAT
CASING - ALL COILS HAVE 18 GAUGE GALVANIZED STEEL CASING
TESTING - ALL COILS ARE LEAK TESTED UNDER WATER WITH 550 PSIG DRY NITROGEN
HEADERED MODELS ARE SUPPLIED WITH 1/4" VENT AND DRAIN CONNECTIONS

DRAWING NO. 5FB100

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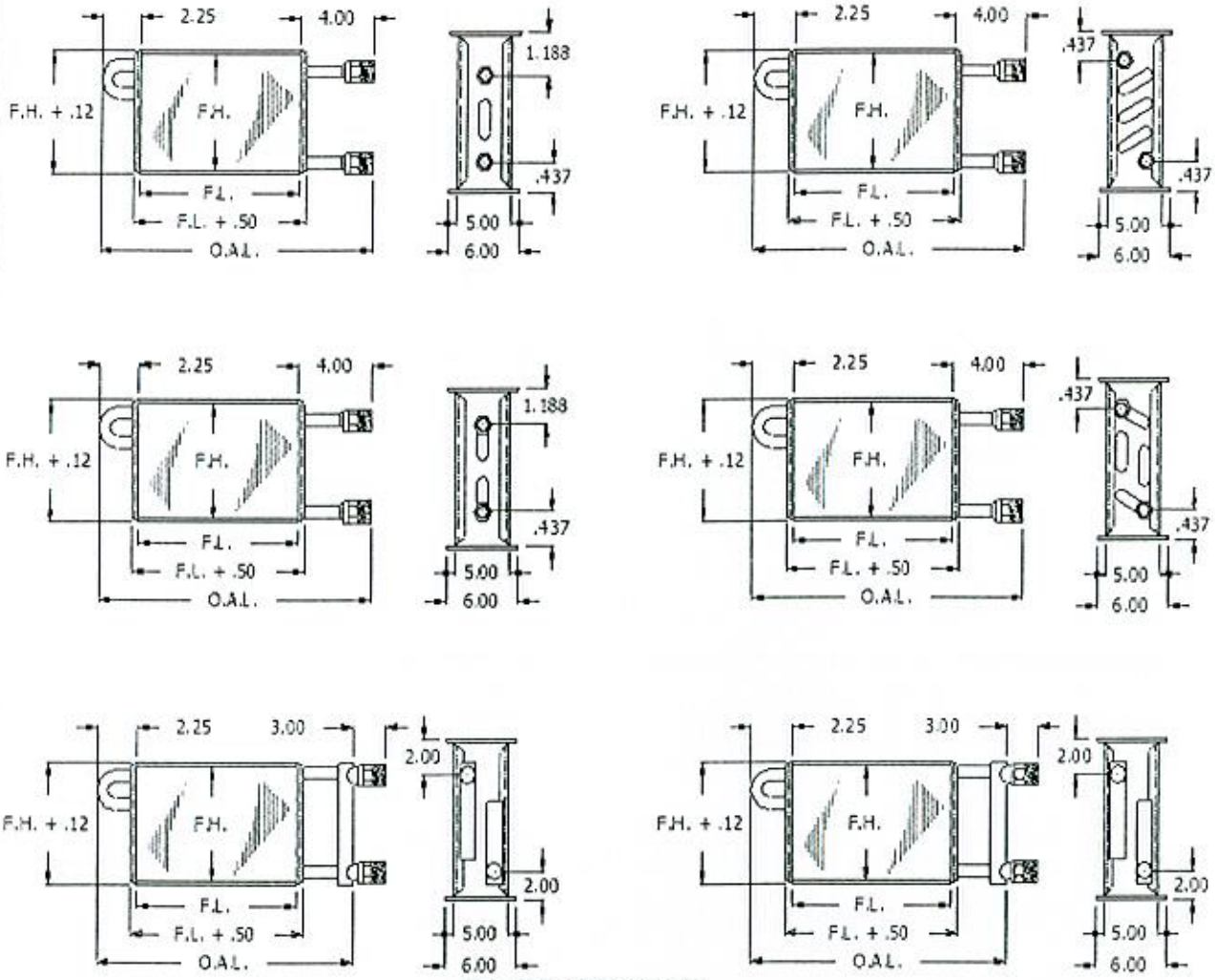
5/8" TUBE 1 AND 2 ROW BOOSTERS

1 ROW COILS

2 ROW COILS

SLIP & DRIVE STYLE CASING



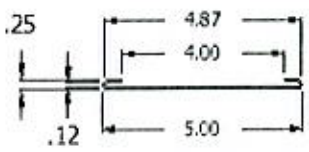
ALL DIMENSIONS ARE IN INCHES

NON-HEADERED MODELS
OVERALL LENGTH = FIN LENGTH PLUS 6.25"

HEADERED MODELS
OVERALL LENGTH = FIN LENGTH PLUS DIMENSION FROM CHART BELOW

CONNECTION SIZE	ADD TO F.L. DIMENSION
3/4" M.P.T OR 7/8" SWEAT	6.250"
1.0" M.P.T. OR 1 1/8" SWEAT	6.500"
1.25" M.P.T. OR 1 3/8" SWEAT	6.750"
1.50" M.P.T. OR 1 5/8" SWEAT	7.000"
2.00" M.P.T. OR 2 1/8" SWEAT	7.500"

ENDPLATE DETAIL



CONSTRUCTION SPECIFICATIONS

COIL TUBES - ALL COILS HAVE 5/8" O.D. COPPER TUBES WITH .020" WALL AND STAGGERED TUBE PATTERN
FINS - ALL COILS HAVE .006" THICK DIE FORMED PLATE-TYPE ALUMINUM FINS
CONNECTIONS - SUPPLY AND RETURN CONNECTIONS ARE AVAILABLE IN COPPER M.P.T. OR SWEAT
CASING - ALL COILS HAVE 18 GAUGE GALVANIZED STEEL CASING
TESTING - ALL COILS ARE LEAK TESTED UNDER WATER WITH 550 PSIG DRY NITROGEN
HEADERED MODELS ARE SUPPLIED WITH 1/4" VENT AND DRAIN CONNECTIONS

DRAWING NO. 5SB100

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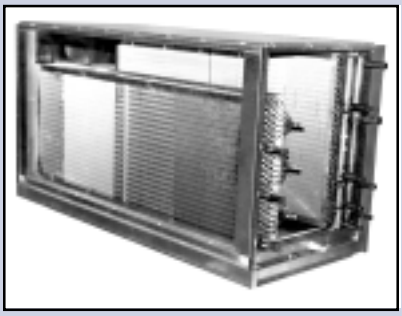
COIL SECTIONS



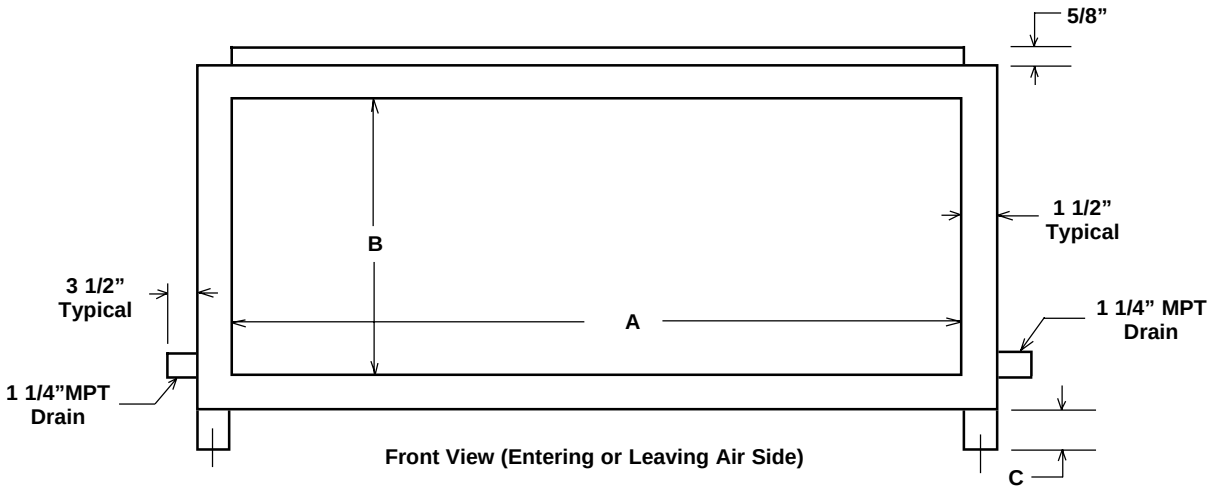
In addition to building free standing coils, Coil Company builds fully insulated coil sections for duct mounting. Coils are fully mounted inside a galvanized steel coil section that is built with double wall construction and 2", 1 1/2 lb. fiberglass insulation. Housing is 16 ga. galvanized steel with removable panels on each side for total coil access. Drain pans are 304 stainless steel.

These units are great for duct mounting where you don't have to worry about your own drain pan or field insulating the unit. All the work is done at Coil Company. And the best part is that these units are available on Quickship just like any coil. See the table below for various sizes.

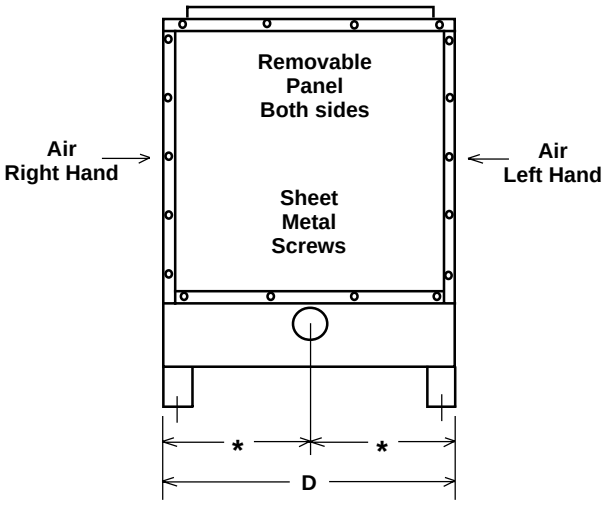
Approximate CFM	Size	Coil Size	Available Coil Depth	
			Short	Long*
1500	3	15 x 30	17 1/2	23 1/2
2250	4.5	21 x 30	17 1/2	23 1/2
3000	6	18 x 44	17 1/2	23 1/2
4000	8	24 x 48	17 1/2	25 1/2
5000	10	30 x 48	17 1/2	31 1/2
6000	12	30 x 57	17 1/2	31 1/2
7000	14	30 x 66	17 1/2	31 1/2
8500	17	36 x 69	17 1/2	37 1/2
10,500	21	36 x 84	17 1/2	37 1/2
12,500	25	42 x 84	17 1/2	37 1/2
15,500	31	42 x 108	17 1/2	37 1/2
18,000	36	48 x 108	17 1/2	37 1/2
20,500	41	54 x 108	17 1/2	37 1/2
25,000	50	66 x 108	17 1/2	37 1/2
32,500	65	87 x 108	17 1/2	37 1/2
* Additional coil space can be used for pre-cooling coils, heating coils, dehumidifying coils, etc.				

COIL SECTIONS

Free standing coil sections



Front View (Entering or Leaving Air Side)



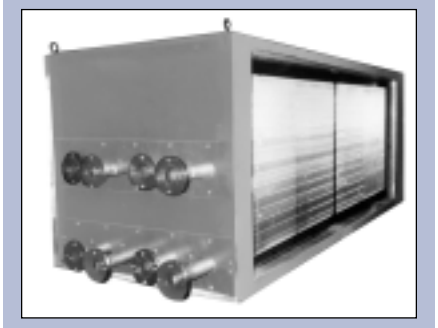
Side View

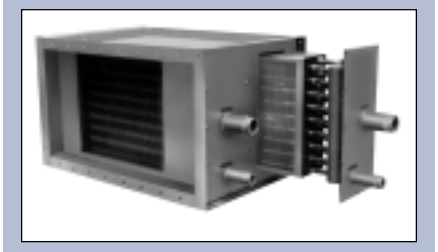
Construction:
16 gauge galvanized steel housing.
Removable panels on both sides.
16 gauge 304 stainless steel drain pan.
2" double wall insulation.

**** Drain connection located 11" from entering air side of section - short***

Desig.	3	4.5	6	8	10	12	14	17	21	25	31	36	41	50	65
A	42	42	56	60	60	69	78	81	96	96	120	120	120	120	120
B	18	24	21	27	33	33	33	39	39	45	45	53	60	70.5	90.5
C	2	2	2	2	2	2	2	3	3	4	4	4	4	4	4
D Short	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
D Long	28	28	28	30	36	36	36	42	42	42	42	42	42	42	42

INDUSTRIAL COILS





Coil Company has concentrated on industrial customers for years. We build and design a wide of Heat Transfer and Air Handling Equipment that can be used in industrial applications for comfort heating/cooling or process jobs. Coil Company is set up to handle industrial customers better than any other company in our industry. We offer your company the following:

- **Quick shipments on almost all equipment.** Coil Company either stocks or offers expedited shipments on Coils, Air Handlers, and Space Coolers.
- **Flexibility in design and size.** Coil Company can replace most equipment that you require. We can duplicate size, duty and performance.
- **Competitive pricing.** Coil Company offers a host of great products that will save you time and money by dealing direct with the manufacturer. Coil Company is a nationwide source for HVAC equipment and our pricing is as good as anyone in the industry.

Coil Company specializes in emergency shipments.

Three shipment programs are available to meet your needs.

1. Standard Shipment: Most coils ship in 4 to 5 weeks. Coils requiring special materials and construction can take 6 to 7 weeks.
2. Special 10 work day Shipment: Most HVAC and process coils can ship in 10 work days (2 weeks) for a premium of 15% to 25%.
3. Special 5 work day Shipment: Most HVAC and process coils can ship in 5 work days (1 week) for a premium of 30% to 50%.

Coil Company has the tooling to build coils from all the materials and thicknesses in the following charts. Ocasionally some materials may not be available when needed. Please check with Coil Company before specifying materials that may be difficult to obtain.

MATERIALS OF CONSTRUCTION		
TUBE MATERIALS	DIAMETER	THICKNESS
COPPER	1/2" O.D.	.017", .025"
COPPER	5/8" O.D.	.020", .025", .035", .049", .065"
COPPER	5/8" O.D. Non-freeze Steam	.025", .035"
COPPER	7/8" O.D.	.035", .049", .065", .109"
COPPER	1" O.D. Non-freeze	.035", .049"
90/10 CUPRO-NICKEL	5/8' O.D.	.035", .049", .065"
90/10 CUPRO-NICKEL	7/8" O.D.	.035", .049", .065"
BRASS (RED/ADM.)	5/8" O.D.	.035", .049", .065"
CARBON STEEL	5/8" O.D.	.035", .049", .065"
CARBON STEEL	7/8" O.D.	.049", .065", .109"
304/316 STAINLESS	5/8" O.D.	.035", .049", .065"
304/316 STAINLESS	7/8" O.D.	.049", .065", .109"
ALUMINUM	5/8" O.D.	.049", .065"

FIN MATERIALS	THICKNESS
ALUMINUM	.006", .008", .010", .016", .030"
COPPER	.006", .008", .010"
CARBON STEEL	.012"
304/316 STAINLESS	.010"
90/10 CUPRO-NICKEL	.010'

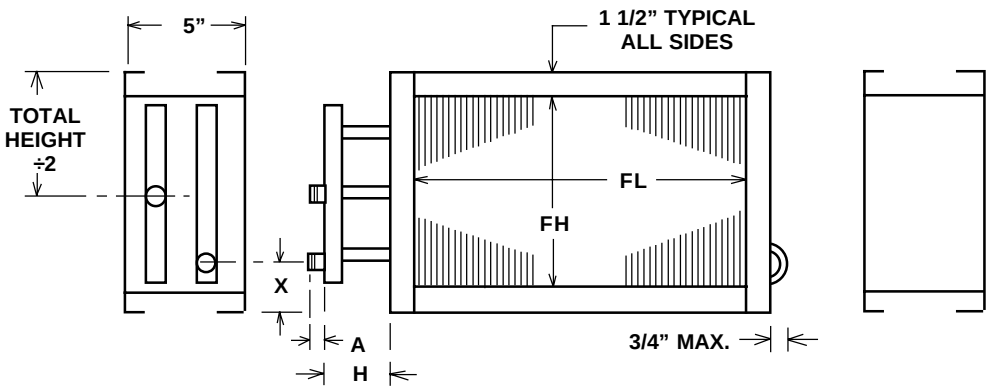
CASING MATERIALS	THICKNESS
GALV. STEEL	16 GA., 14 GA., 12 GA., 10 GA., 8 GA. AVAILABLE FOR ALL
304/316 STAINLESS	
ALUMINUM	

CONNECTIONS	CONNECTION TYPES
COPPER STEEL 90/10 CUPRO-NICKEL BRASS ALUMINUM	M.P.T. F.P.T. SWEAT FLANGED

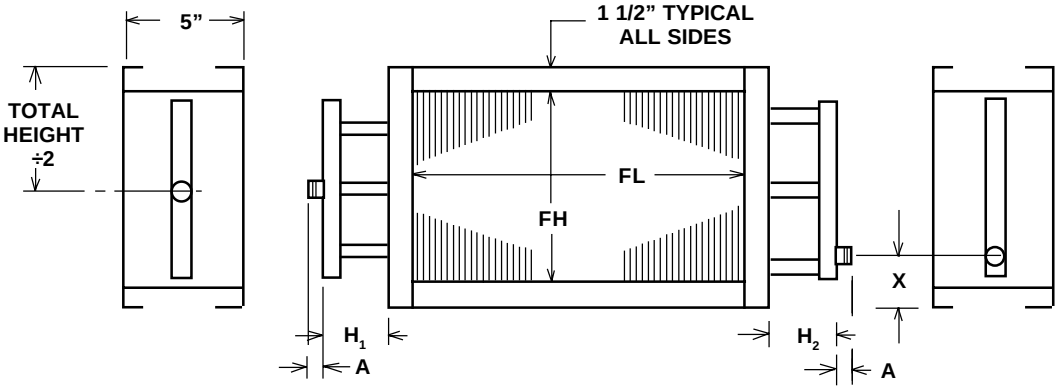
STEAM - STANDARD

Standard Steam Coils 5/8" O.D. Type

SAME END



OPPOSITE END



Coil Construction

- *5/8" O.D. x .025 copper tubes.*
- *.006 thick aluminum tubes.*
- *Heavy wall copper headers.*
- *M.P.T. connections (copper).*
- *16 Ga. galvanized steel casing supports.*

All connections M.P.T. (O.D.)
X = 5/8" + return connection size

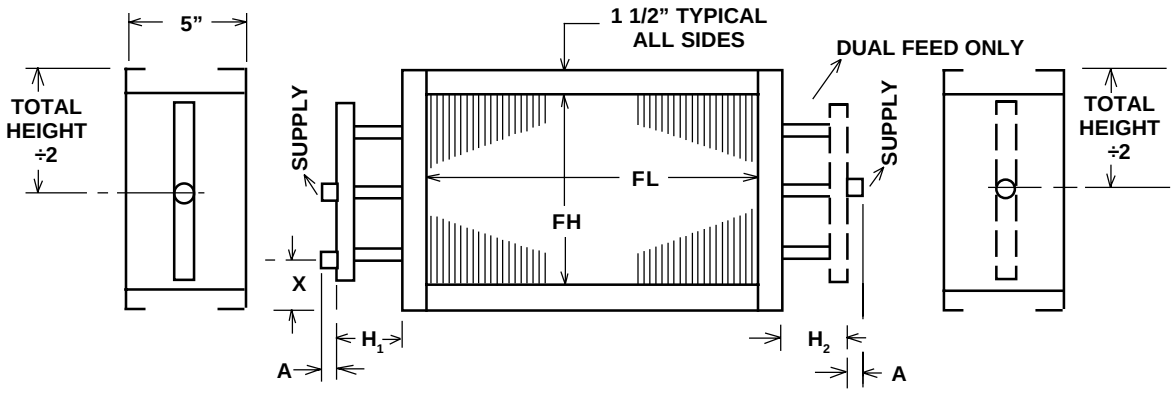
Dimensions					
Conn's Sup. / Ret.	H Same End	1 Row Opposite End		2 Row Opposite End	
		H_1	H_2	H_1	H_2
1 1/2 - 1 1/2	3 1/4	3 1/4	3 1/4	4 1/2	4 1/2
2 - 1 1/2	3 3/4	3 1/2	3 1/2	4 1/2	4 1/2
2 1/2 - 1 1/2	4 1/4	3 3/4	3 3/4	4 1/2	4 1/2
2 1/2 - 2	4 1/4	4	4	4 1/2	4 1/2
3 - 2 1/2	4 3/4	4 1/2	4 1/2	5	5

Connection Sizes - All Coils				
Coil FH	Supply		Return	
	1R	2R	1R	2R
Up to 24	1 1/2	2	1 1/2	1 1/2
24 - 27	2	2	1 1/2	1 1/2
30 - 33	2	2 1/2	1 1/2	1 1/2
36 & up	2 1/2	3	2	2 1/2

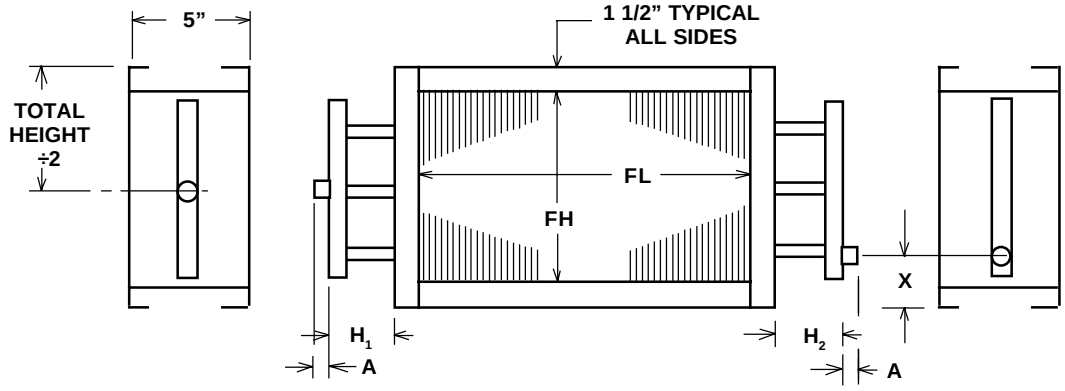
STEAM - DISTRIBUTING

Steam Distributing Coils (non-freeze) 5/8" or 1" O.D. Types

SAME END



OPPOSITE END



Coil Construction:

- *5/8" O.D. x .025 outer, 3/8" O.D. inner copper.*
- *1" O.D. x .035 outer, 5/8" O.D. inner copper.*
- *.006" thick aluminum fins (5/8" O.D. tubes).*
- *.008" thick aluminum fins (1" O.D. tubes).*
- *Heavy wall copper headers, M.P.T. copper connections.*
- *16 Ga. galvanized steel casing & supports.*
- *Coil connections to be copper MPT type.*

Application note:

Any coil over 72" finned length, same end connections, in conjunction with outside air, should have dual supply connections (one supply each end). See arrangement 'B' showing two supplies.

All connections M.P.T. (O.D.).
X = 5/8 + Return Conn. Size.

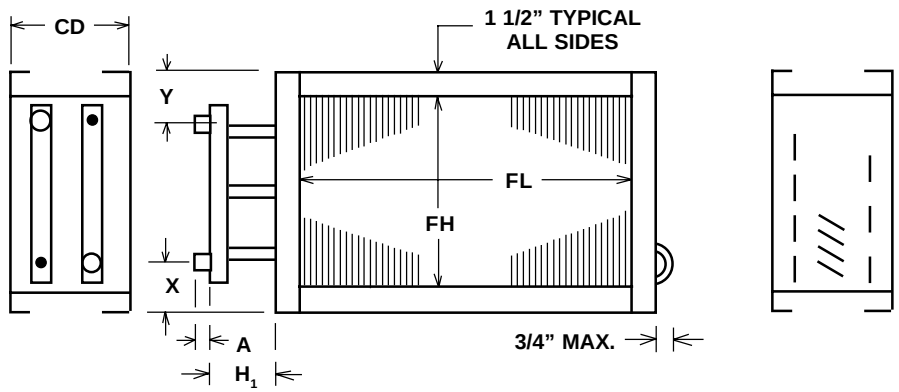
Dimensions										
Conns		1 Row - 5/8" O.D.			2 Row - 5/8" O.D.			1 Row - 1" O.D.		
Sup	Ret	H_1	H_2	A	H_1	H_2	A	H_1	H_2	A
1 1/2	1 1/2	4 1/4	2 1/4	3 1/2	4 3/4	3 3/4	4	3 1/2	3 1/2	3
2	1 1/2	4 1/4	2 3/4	3 1/2	4 3/4	3 3/4	4	3 3/4	3 1/2	3
2 1/2	1 1/2	4 1/4	3 1/4	3 1/2	4 3/4	3 3/4	4	4 1/4	3 1/2	3 1/4
2 1/2	2	4 1/4	3 3/4	3 1/2	4 3/4	3 3/4	4	4 1/4	3 1/2	3 1/4
3	2 1/2	4 3/4	4 1/4	4	4 3/4	4 1/4	4	4 3/4	4	3 1/4

Connection Sizes - All Coils				
Coil FH	Supply		Return	
	1R	2R	1R	2R
Up to 24	1 1/2	2	1 1/2	1 1/2
24 - 27	2	2	1 1/2	1 1/2
30 - 33	2	2 1/2	1 1/2	1 1/2
36 & Up	2 1/2	3	2	2 1/2

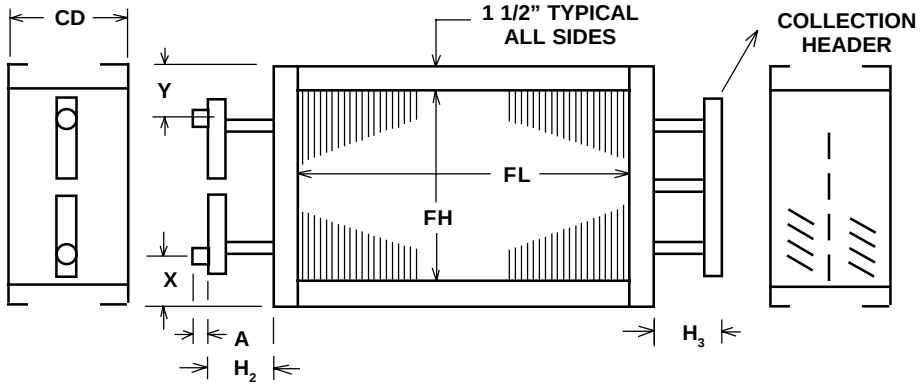
HOT WATER

Hot Water Coils - 5/8" O.D. Type

Arrg't "A"



Arrg't "B"



Coil Construction

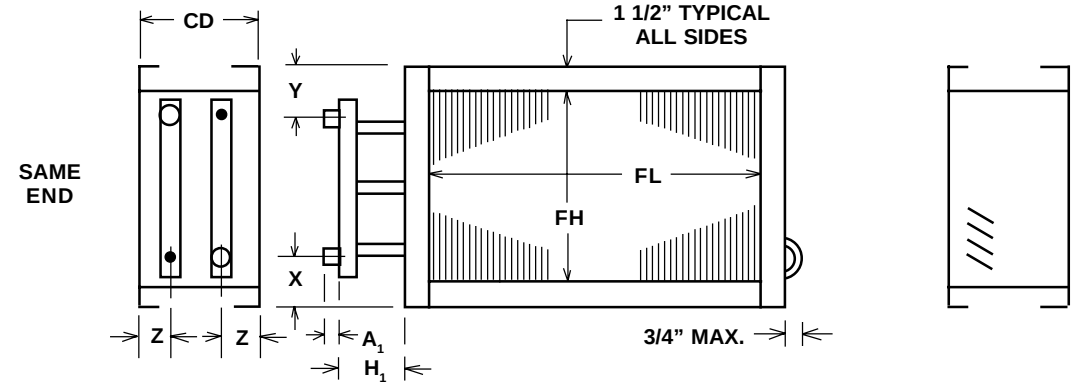
- *5/8" O.D. x .025 copper tubes.*
- *.006 thick aluminum tubes.*
- *Heavy wall copper headers.*
- *M.P.T. connections (copper).*
- *1/4" IPS vent and drain.*
- *All coils have 1/2" turned-over flanges.*
- *Top supply-bottom return.*
- *Tolerance ± 1/4" (except as noted).*

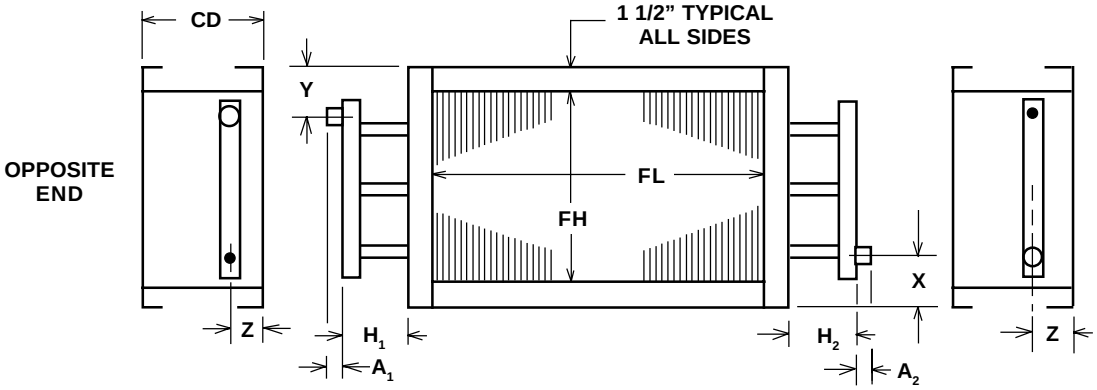
GPM Range	Suggested Copper Conn. MPT	A	1 or 2 Row Arrg't "A"	1 Row Arrg't "B"		2 Row Arrg't "B"		X	Y	CD	
			H_1	H_2	H_3	H_2	H_3			1 Row	2 Row
1-5	3/4	1 1/2	2 3/4	2 7/8	2 7/8	4 3/8	4 3/8	1 1/2	1 1/2	5	6 1/2
6-10	1	2	2 3/4	2 7/8	2 7/8	4 3/8	4 3/8	1 3/4	1 3/4	5	6 1/2
11-20	1 1/4	3	3	3 1/8	3 1/8	4 3/8	4 3/8	2	2	5	6 1/2
21-30	1 1/2	3	3 1/4	3 3/8	3 3/8	4 3/8	4 3/8	2	2	5	6 1/2
31-50	2	3	3 3/4	3 7/8	3 7/8	4 3/8	4 3/8	2	2	5	6 1/2
51-80	2 1/2	3 1/4	4 1/4	4 3/8	4 3/8	4 3/8	4 3/8	2 1/4	2 1/4	5	6 1/2
81-140	3	3 3/4	4 3/4	4 7/8	4 7/8	4 5/8	4 5/8	2 1/4	2 1/4	5	6 1/2

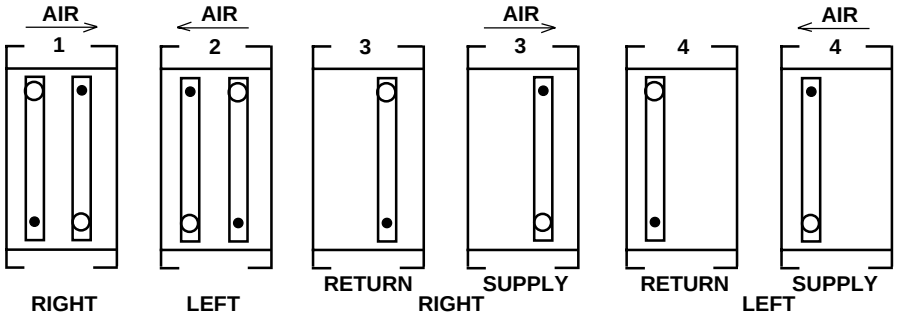
H_2 tolerance ± 1/2

CHILLED WATER

Chilled Water Coils - 1/2" or 5/8" O.D. Types







Standard Construction:

- *5/8" O.D. x .020 wall copper tubes.*
- *.006 thick plate aluminum.*
- *Heavy wall copper headers.*
- *MPT copper connections.*
- *1/4" I.P.S. vent and drain.*
- *All coils have 1/2" turned-over flanges for stacking purposes.*
- *Bottom supply - top return.*
- *Tolerance ± 1/4"*

Circuit description:
Q=Quarter circuit (1/4 of tubes fed in 1 row).
H=Half circuit (1/2 of tubes fed in 1 row).
F=Full circuit (all of tubes fed in 1 row).
O=One and half circuit (1 1/2 times fed vs. number of tubes in 1 row.
D=Double circuit (2 times fed vs. number of tubes in 1 row.

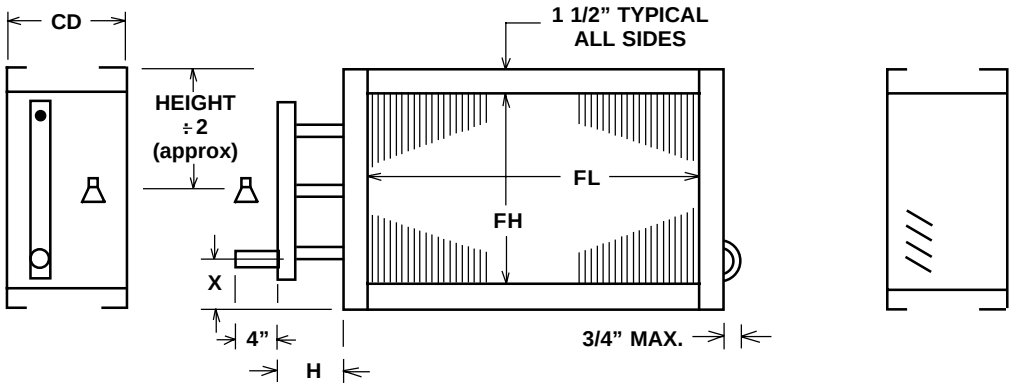
GPM Range	Suggested Conns MPT
1 -5	3/4
6 - 10	1
11 - 20	1 1/4
21 - 30	1 1/2
31 - 50	2
51 - 80	2 1/2
81 - 140	3

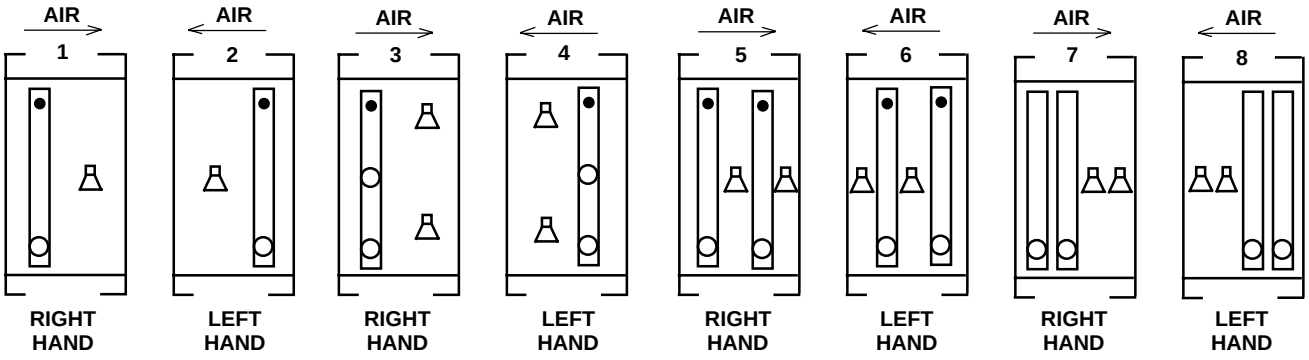
Conn Size	H	A	X	Y
3/4	2 3/4	1 1/2	1 1/4	1 1/4
1	2 3/4	2	1 1/2	1 1/2
1 1/4	3	3	1 1/2	1 1/2
1 1/2	3 1/4	3	1 1/2	1 1/2
2	3 3/4	3	1 3/4	1 3/4
2 1/2	4 1/4	3 1/4	2	2
3	4 3/4	3 3/4	2 1/4	2 1/4

"Z" Connection											
Rows	CD	3/4" to 1 1/2" connections			2" to 3" connections			3/4" to 1 1/2"		2' to 3"	
		Q	H	F	Q	H	F	O	D	O	D
3	6 1/2	2	2	2	1 1/4	1 1/4	1 1/4	-	-	-	-
4	7 1/2	1 13/16	1 13/16	1 13/16	1 13/16	1 13/16	1 13/16	-	2 1/2	-	-
5	10	2 1/16	2 1/16	2 1/16	2 1/16	2 1/16	2 1/16	-	-	-	-
6	10	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	2 3/8	2 3/8	2 3/8	2 3/8
8	12 1/2	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	-	2 3/8	-	2 3/8
10	15	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8	-	2 3/8	-	2 3/8
12	18	1 13/16	1 13/16	1 13/16	1 13/16	1 13/16	1 13/16	2 1/2	2 1/2	2 1/2	2 1/2

DX EVAPORATOR

Direct Expansion Cooling Coils - 5/8" O.D. Type





Coil Construction:

- *5/8" O.D. x .020 wall copper tubes.*
- *.006 thick plate aluminum.*
- *Heavy wall copper headers.*
- *16 Ga. galvanized steel casings and supports.*
- *O.D. copper sweat connections.*

Tonnage vs. connection size based on each circuit. Connections O.D. sweat type - suction distributor size based on performance.

R-22 Tonnage	Conn. Size	H	X
2 - 4	7/8	2.75	1 1/4
5 - 7	1 1/8	2.75	1 1/2
8 - 13	1 3/8	3	1 1/2
14 - 20	1 5/8	3.25	1 1/2
21 - 39	2 1/8	3.75	1 3/4
40 - 63	2 5/8	4.25	2
64 - 99	3 1/8	4.75	2 1/4

Rows	CD
3	6 1/2
4	7 1/2
5	10
6	10
8	12 1/2
10	15
12	18

COIL WEIGHTS

Rows	Fin Width	Fin Length (Inches) 12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
1	12	17	20	23	27	30	34	37	41	44	47	51	54	58	61	64	68	71	75	78
	15	19	23	27	31	34	38	42	46	50	53	57	61	65	69	72	76	80	84	88
	18	22	26	30	34	38	43	47	51	55	59	64	68	72	76	80	84	89	93	97
	21	27	32	36	41	45	50	54	59	64	68	73	77	82	86	91	96	100	105	109
	24	30	35	40	45	50	55	59	64	69	74	79	84	89	94	99	104	109	114	119
	27	33	38	43	49	54	59	65	70	76	81	86	92	97	102	108	113	118	124	129
	30	42	48	54	60	65	71	77	83	88	94	100	106	111	117	123	129	134	140	146
	33	46	52	58	64	70	76	83	89	95	101	107	113	119	126	132	138	144	150	156
	36	49	56	62	69	75	82	88	95	102	108	115	121	128	134	141	147	154	160	167
2	12	20	25	30	35	40	45	50	55	60	64	69	74	79	84	89	94	99	104	109
	15	23	29	35	40	46	52	58	63	69	75	81	86	92	98	104	109	115	121	127
	18	26	33	39	46	52	59	66	72	79	85	92	98	105	111	118	124	131	137	144
	21	32	40	47	54	62	69	76	84	91	98	106	113	120	127	135	142	149	157	164
	24	36	44	52	60	68	76	84	93	101	109	117	125	133	141	149	157	165	173	181
	27	40	49	57	66	75	84	93	102	111	120	128	137	146	155	164	173	182	190	199
	30	50	60	69	79	89	98	108	118	127	137	147	156	166	176	185	195	205	214	224
	33	54	65	75	86	96	107	117	127	138	148	159	169	180	190	200	211	221	232	242
	36	59	70	81	92	103	115	126	137	148	160	171	182	193	204	216	227	238	249	260
4	12	28	37	45	54	62	71	79	88	96	105	113	122	130	139	147	155	164	172	181
	15	33	43	53	63	73	83	93	103	114	124	134	144	154	164	174	184	194	204	214
	18	38	50	61	73	85	96	108	119	131	143	154	166	178	189	201	212	224	236	247
	21	46	59	72	86	99	112	125	138	151	165	187	191	204	217	230	244	257	270	283
	24	51	66	81	95	110	125	140	154	169	184	199	213	228	243	258	272	287	302	316
	27	57	73	89	106	122	138	155	171	187	203	220	236	252	269	285	301	318	334	350
	30	69	87	105	123	140	158	176	194	212	230	248	265	183	301	319	337	355	373	390
	33	75	94	114	133	153	172	191	211	230	250	269	289	308	327	347	366	386	405	424
	36	81	102	123	144	165	186	207	228	249	270	291	312	333	354	375	396	417	438	459
6	12	36	48	60	72	84	96	108	121	133	145	157	169	181	193	205	217	229	241	253
	15	43	58	72	86	101	115	129	144	158	172	187	201	216	230	244	259	273	487	302
	18	50	67	83	100	117	133	150	167	184	200	217	234	250	267	284	301	317	334	351
	21	60	79	98	117	136	155	174	193	212	231	250	269	288	307	326	345	364	383	402
	24	67	88	109	131	156	174	195	216	238	259	280	302	323	345	366	387	409	430	451
	27	74	98	121	145	169	193	216	240	264	287	311	335	359	382	406	430	453	477	501
	30	88	114	140	166	192	218	244	270	296	322	349	375	401	427	453	479	505	531	557
	33	96	124	152	181	209	238	266	294	323	351	380	408	436	465	493	522	550	578	607
	36	103	134	165	196	226	257	288	319	349	380	411	442	472	503	534	565	595	626	657
8	12	45	60	76	91	107	122	138	153	169	185	200	216	231	247	262	278	293	309	325
	15	53	72	91	109	128	147	165	184	203	221	240	259	277	296	315	333	352	371	389
	18	62	84	105	127	149	171	193	214	236	258	280	301	323	345	267	389	410	432	454
	21	73	98	123	148	173	198	223	248	272	297	322	347	372	397	422	447	472	497	522
	24	82	110	138	166	194	222	250	278	306	334	362	390	418	446	474	502	530	558	586
	27	91	122	153	184	216	247	278	309	340	371	403	434	465	496	527	558	589	621	652
	30	107	141	175	210	244	278	312	347	381	415	449	484	518	552	587	621	655	689	742
	33	116	154	191	228	266	303	341	378	415	453	490	528	565	602	640	677	715	752	789
	36	126	166	207	247	288	328	369	409	490	490	531	571	612	652	693	734	774	815	855

Notes: Weights are at 10 FPI, and are standard water, standard steam, DX and condenser coils. Multiply the following factors for other type of coils:

6 FPI	- 0.95	Copper Fins (.006" thick)	- 1.35
8 FPI	- 0.98	Steam Distribution (SD)	- 1.40
12 FPI	- 1.02	Extra Heavy Tube Walls	- 1.1
14 FPI	- 1.05	Stainless Steel Casing	- 1.02
		1/2" Tube Coils	- 0.95

* Weights are approximate

** To find wet coil operating weight add to above (1.32 x sq. ft. x rows)

INSTRUCTIONS

How to measure coils

Go to page 21 and fill out as much data as you have available to complete form. Send form with appropriate coil drawings from pages 22 thru 26 to Coil Company via FAX # 610-251-0805.

We need information from you to adequately provide budget or exact pricing and then specific information to actually fabricate the coil(s). We have a master replacement coil form that needs to be completed. The information requested can be obtained from the front views and connection arrangement views shown on the following pages.

A. We need the Unit Manufacturer, Unit and Coil Model Number

B. Coil Type (Std. Steam, Steam Distr., Hot Water, Chilled Water, DX Cooling or Condenser) and tube diameter, connections on same or opposite ends ? and the quantity.

C. Face View and Coil Connection View arrangements - Face View is either exposed or concealed headers and select coil closest to E1 thru E6 or C1 thru C6. We do not show the actual coil connection stubs for ease of selection - Coil connection arrangement is by looking at connection end (both ends if opposite end). Select the view closest to your coil to be replaced.

D. Rows, Fins per inch, Number of tubes in each row - Rows are rows of tubing in direction of airflow. Usually one row to eight rows but can be more. Fins per inch is just number of fins within one inch and number of tubes high is the number you count in one row. An example would be a 5/8” Tube Coil with a fin height of 30”. There are 20 tubes/row.

E. Selection of finned area (FH x FL), Casing Height x Casing Length x Casing Depth is very important. FH x FL is finned area where air passes through coil, casing dimensions are always outer frame dimensions. Casing Height is always perpendicular to tubes, Casing Length in direction tubes run and casing depth is always measured in direction of air flow.

F. Overall Length (OL) and Stub Length (SL) is very important because the “OL” might be the most important length dimension measured since it is usually fitting snug within the walls of the unit. Always remember that “OL” should always be longer than “CL”. Stub Length is just the distance of the connection stub from header out to end including thread.

G. Connection sizes are easy but connection types are usually MPT, FPT, Sweat or Flanged.

H. Flange sizes above and below (TB) and Flanges at connection and return bend ends (EF) are important to properly build channels so that coil can fit into unit. Remember FH + TB + TB = CH (Casing Height) and FL + EF + EF = CL (Casing Length).

J. This is the connection location area. Connections are always measured from the very edge (top or bottom of coil casing) to centerline of connection. “A” is always bottom to lowest connection, “B” is always from top to highest connections and “C” is always the horizontal measuring between connections or from side of coil casing.

K. Construction of coil is important because we need to know to make sure special materials are used when required. If you can’t tell, then give us temperature/ pressure ratings and corrosive data, in lieu of actual construction.

L. This section is actually giving us the circuitry on the coils. Determining the circuitry is as simple as counting the number of tubes fed from each header.

M. Comments: We need any information like coatings, application, etc., that might help us help you. We do not want to duplicate your problem.

INSTRUCTIONS

Master Replacement Coil Form

Company Name _____ Project Name _____

Contact _____ Phone _____

Date _____ Fax _____

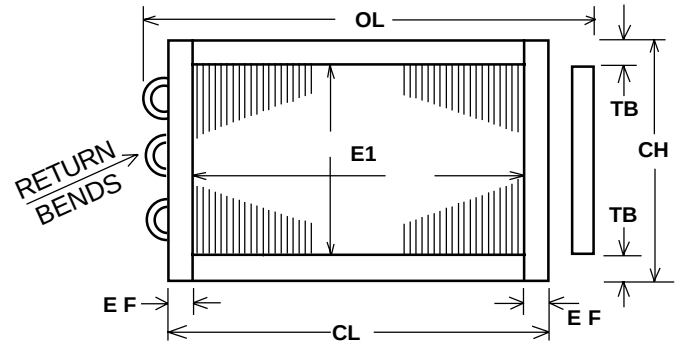
E-mail _____

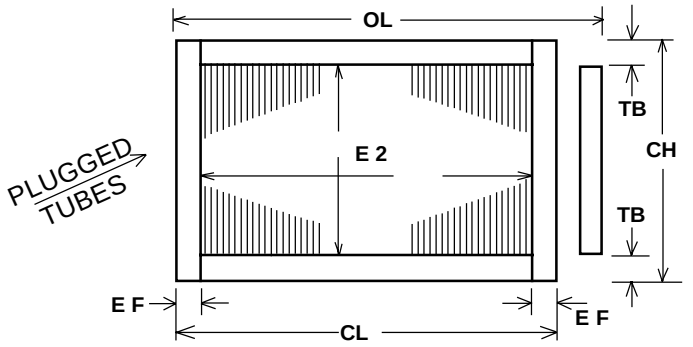
	COIL ITEM	1	2	3	4
	TAG				
A	UNIT MANUFACTURER				
	UNIT MODEL NUMBER				
	COIL MODEL NUMBER				
B	COIL TYPE / TUBE DIF.				
	SAME OR OPPOSITE END				
	QUANTITY				
C	FACE VIEW ARRANGEMENT				
	CONNECTION VIEW ARRANGEMENT				
D	ROWS (In Direction of Air Flow)				
	FINS PER INCH				
	NO. OF TUBES (In Each Row)				
E	FH x FL (Finned Height x Finned Length)				
	CH x CL (Casing Height x Casing Length)				
	CD (Casing Depth in Direction of Air Flow)				
F	OL (Overall Length Incl. Bends / Hdrs.)				
	SL (Stub Length - Conn. Length)				
G	SC (Supply Conn. Size / Type)				
	RC (Return Conn. Size / Type)				
H	T/B FLANGES (Top & Bottom Flanges)				
	EF END FLANGES (Conn. & R.B. End)				
J	A - (Conn. Located Bottom Up)				
	B - (Conn. Location Top Down)				
	C - (Conn. Location - Between)				
K	TUBE O.D. / CONSTRUCTION				
	FIN CONSTRUCTION				
	HEADER / CONN. CONSTRUCTION				
	CASING / FRAME CONSTRUCTION				
L	NO OF TUBES CONNECTED TO INLET				
	NO OF TUBES CONNECTED TO OUTLET				
M	COMMENTS				

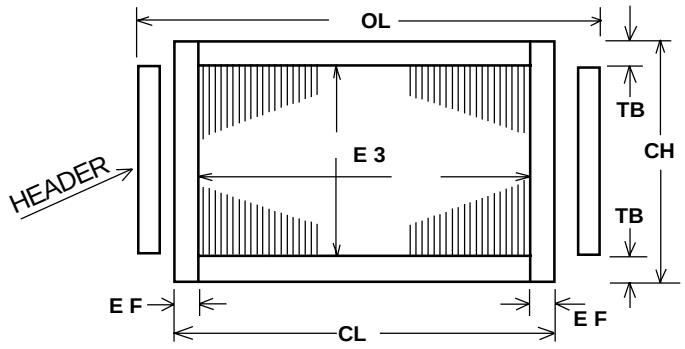
INSTRUCTIONS

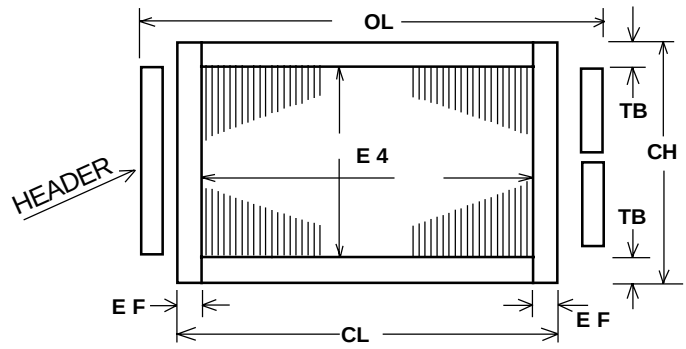
FACE VIEW ARRANGEMENTS

Exposed Ends

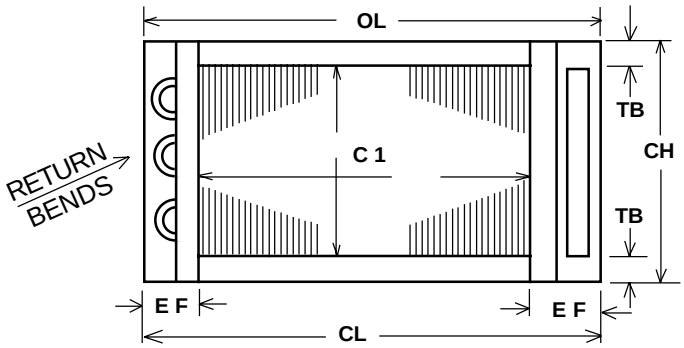


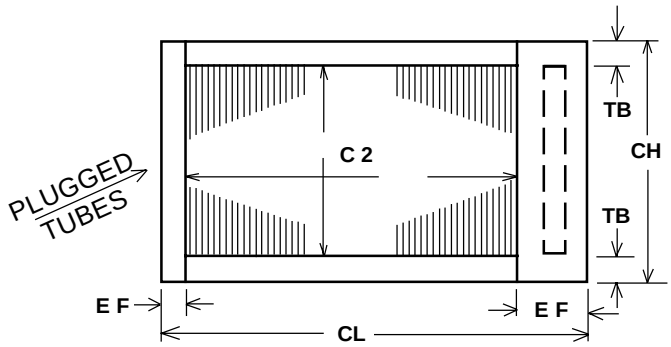


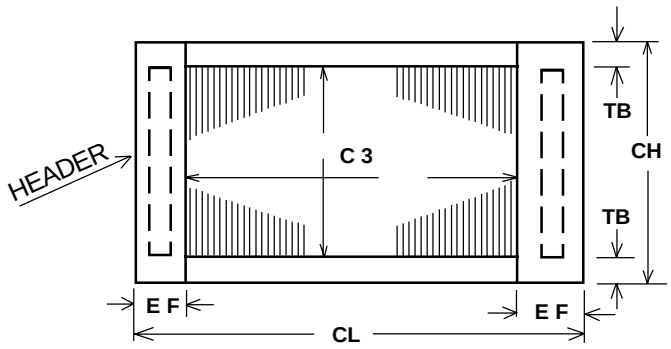


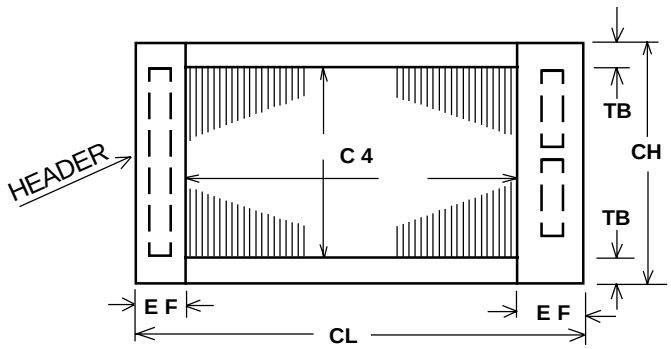


Concealed Ends





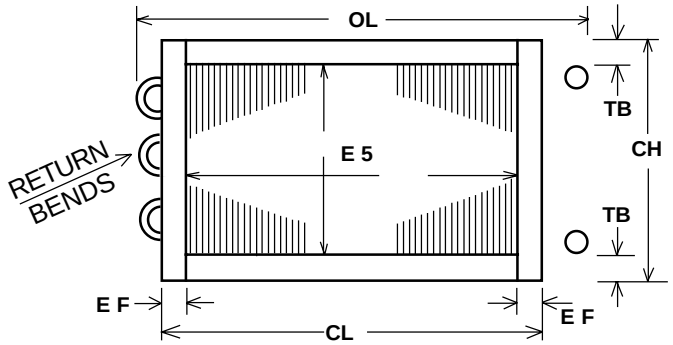


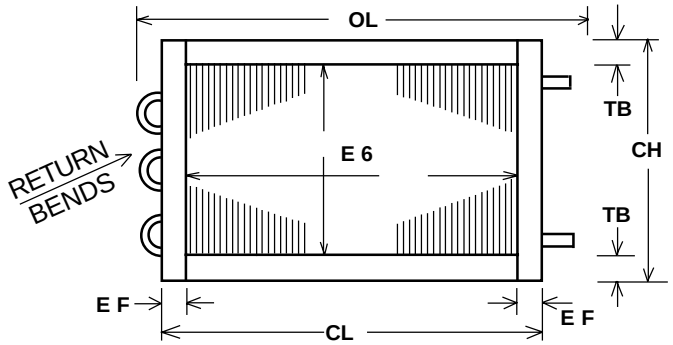


INSTRUCTIONS

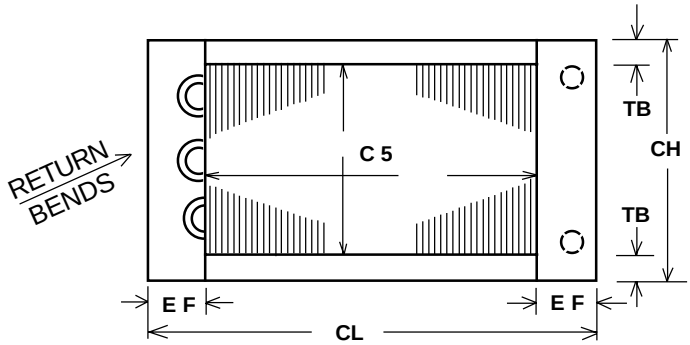
Master Replacement Coil Form

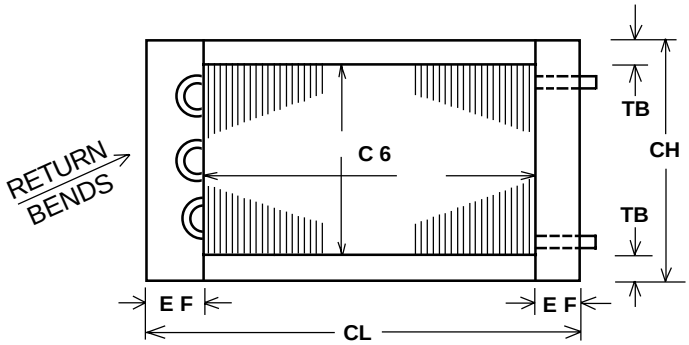
Exposed Ends



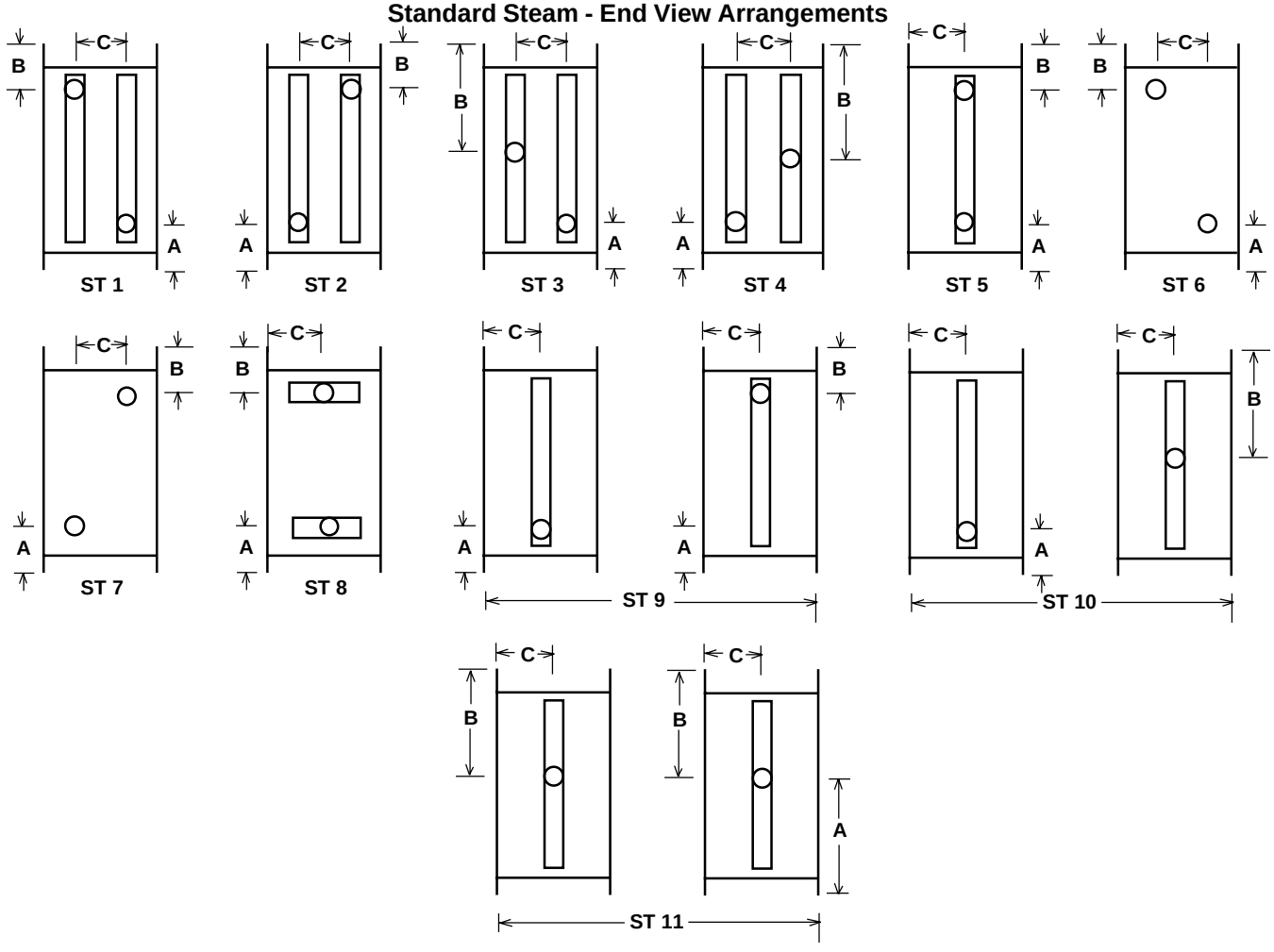


Concealed Ends





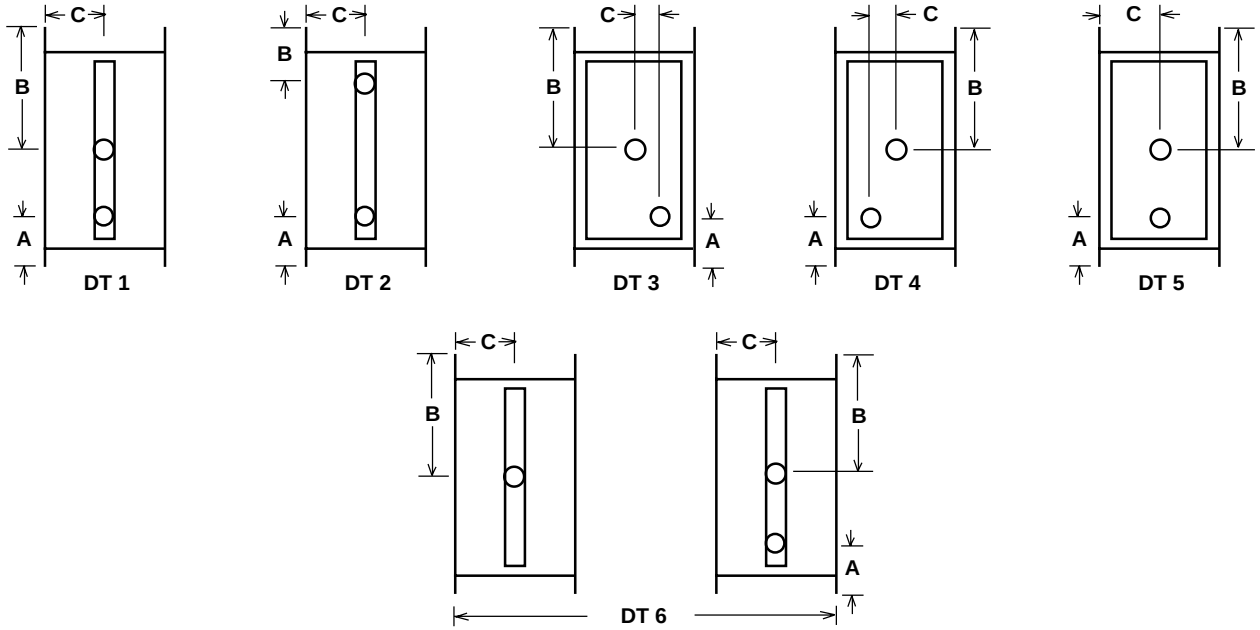
Standard Steam - End View Arrangements



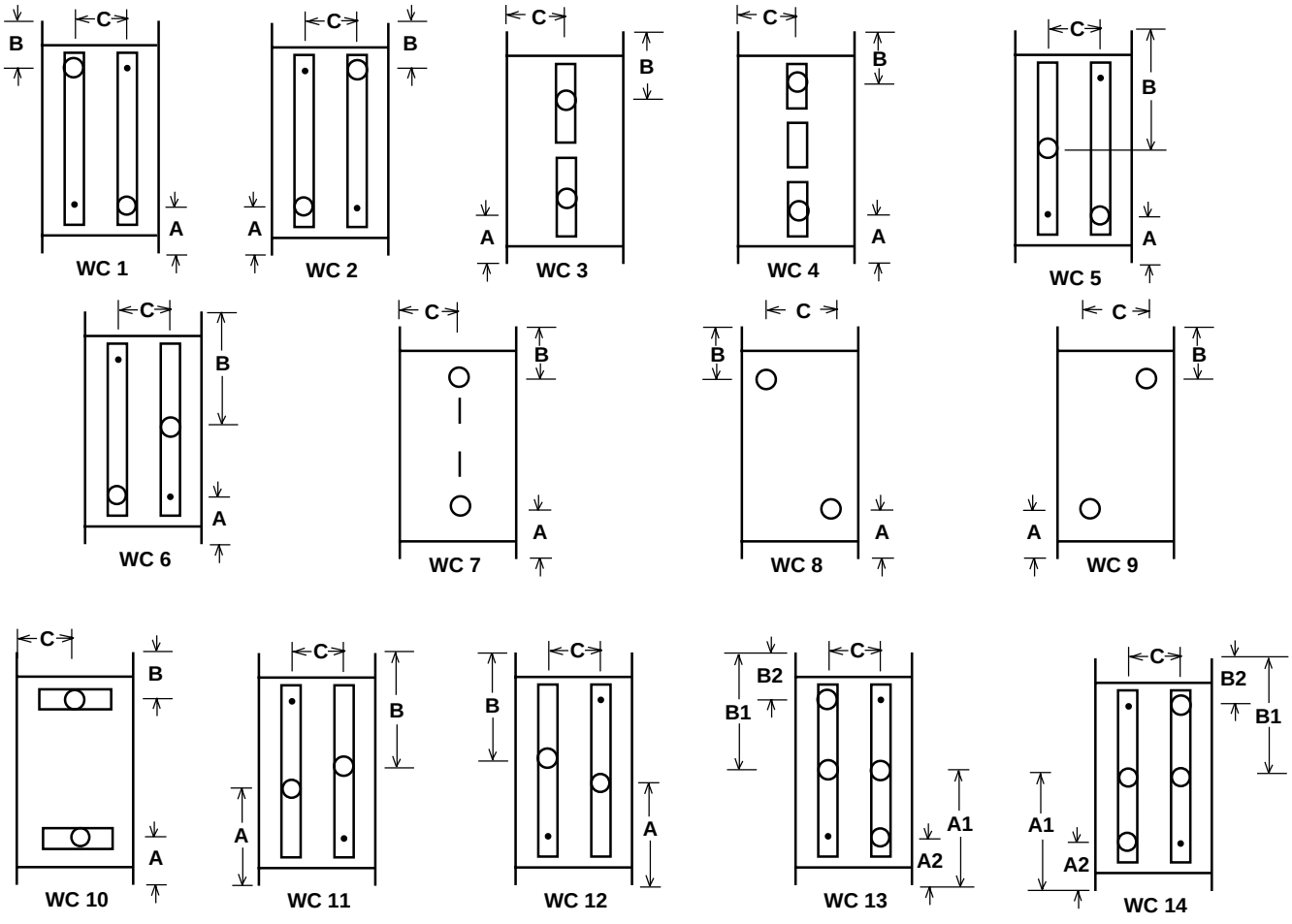
INSTRUCTIONS

Master Replacement Coil Form

Steam Distributing - End View Arrangements

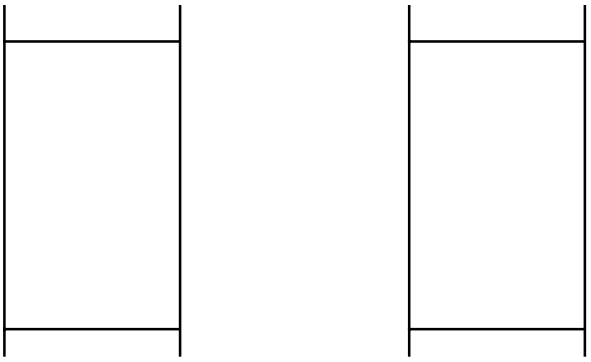


Chilled Water and/or Hot Water - End View Arrangements

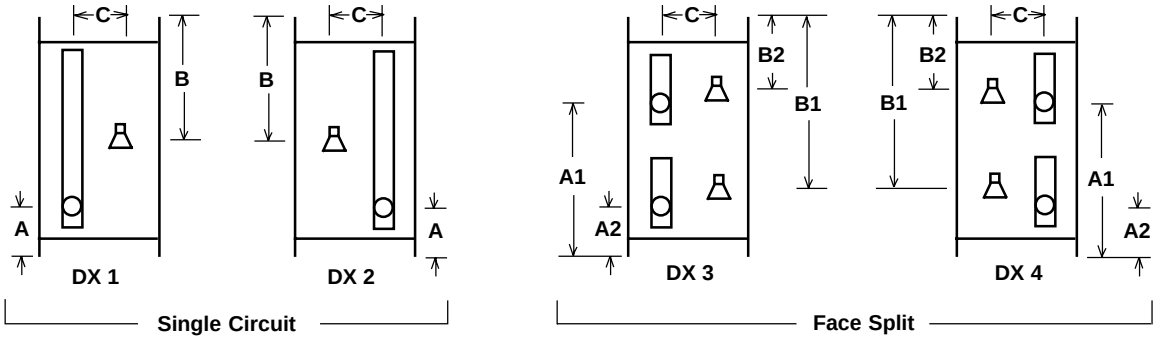


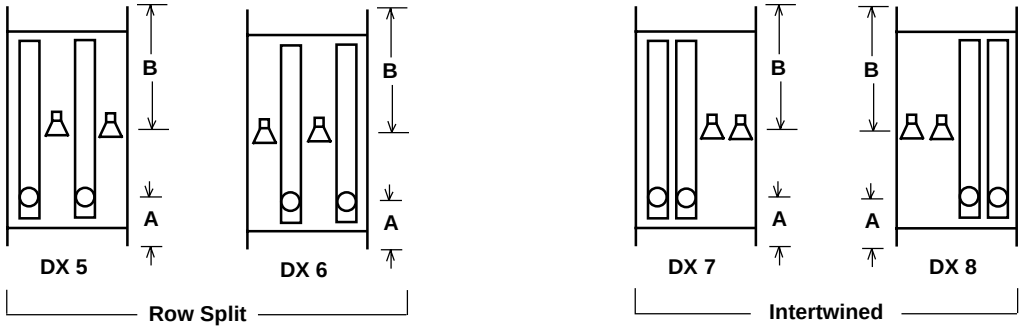
INSTRUCTIONS

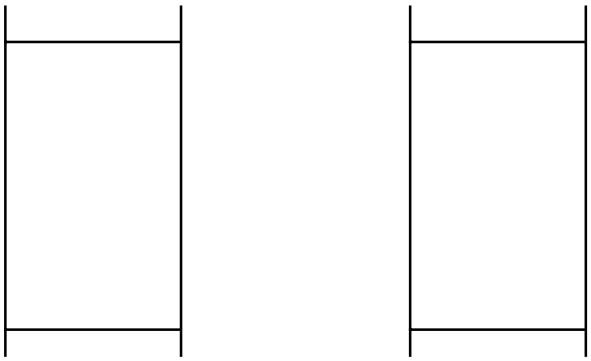
Master Replacement Coil Form



Evaporator (DX) - End View Arrangements



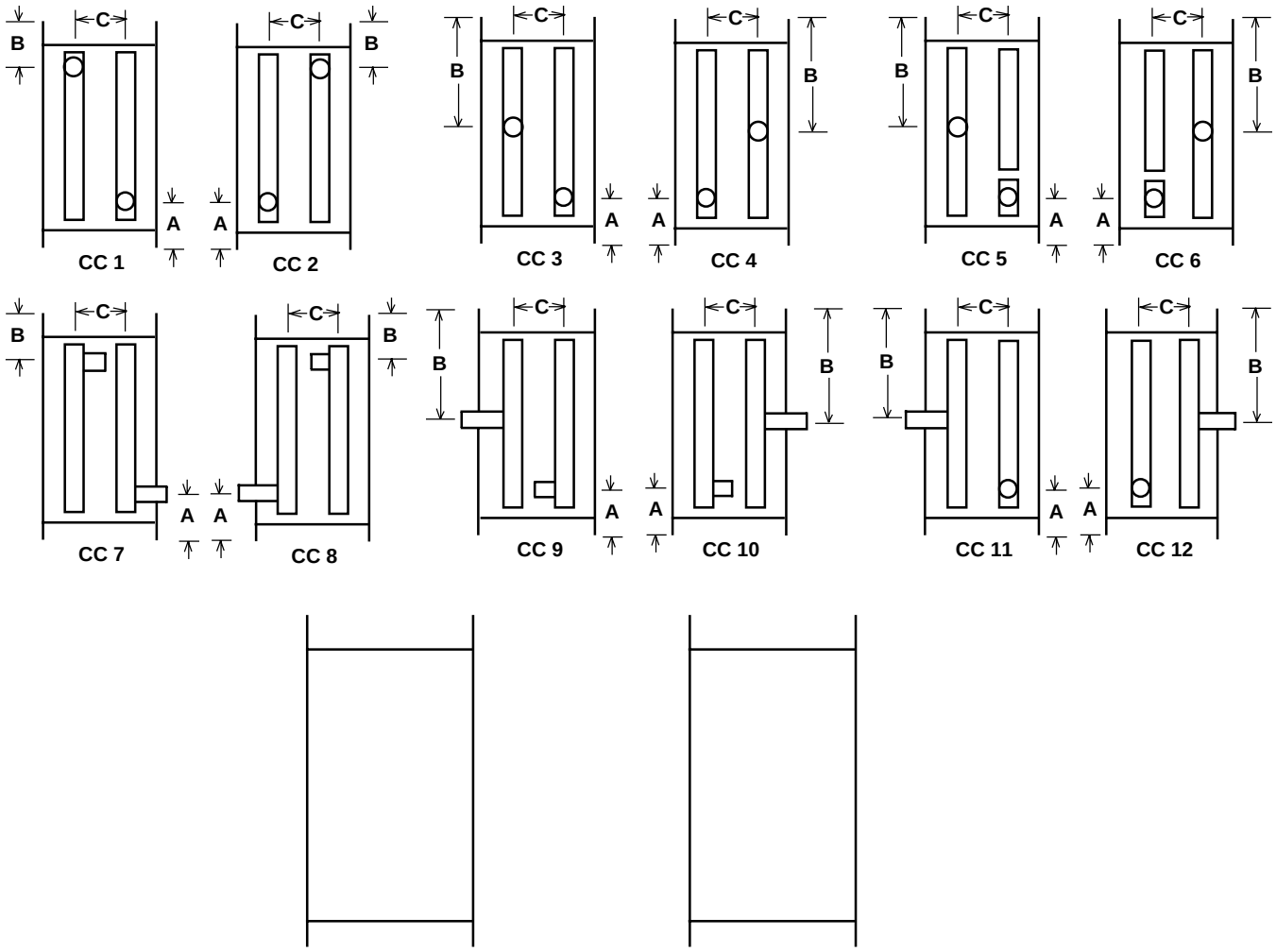




INSTRUCTIONS

Master Replacement Coil Form

Condenser - End View Arrangements



WARRANTY

Coil Company Standard Material & Workmanship 1 Year Warranty

Basic Warranty - Material and Workmanship

Seller warrants, to the original buyer only, that any equipment manufactured by it will be free of defects in material and workmanship, under normal use and service, for one year from the date of shipment. Seller's obligation under this warranty shall be strictly and exclusively limited to repairing or replacing parts and materials, free of charge, f.o.b. our plant, which, in seller's judgement are defective. Seller cannot control the environment nor the manner in which the equipment is used; therefore this warranty does not cover corrosion of equipment during use, or the deterioration caused by conditions of use, or that applications of finishes supplied by others is sufficient, or that finishes applied are suitable for the Buyer's environment. Seller assumes no responsibility for reimbursing repair or replacement expenses incurred without its prior written authorization.

Buyer shall be responsible for all labor costs incurred in connection with repair or replacement at installation site. Buyer shall also be responsible for all costs in removing, packing and shipping defective equipment back to seller. Seller shall be responsible for freight charges back to its factory and Buyer shall use the Seller's designated means of transportation. It is the total responsibility of the Buyer to send back equipment samples quickly (if requested by Seller) to determine possible warranty claims.

Disclaimer of Warranties and Limitation of Remedies

Seller makes no other warranties, expressed or implied with regard to goods and services provided by seller other than those set forth herein. Any implied warranty of merchantability or fitness for a particular purpose of buyer which exceeds the foregoing warranty is hereby disclaimed by Seller.

Seller will not be liable for any defect or indirect consequential or incidental damages, losses or expenses, including, but not limited to; commercial losses, business interruption, or damages resulting to property other than that which is the subject of the sales transaction, nor shall Seller be liable for any personal injuries arising in connection with the sale, resale of operation of its goods or inability of the buyer to use the goods of Seller for any reason whatsoever.

Limitation of remedy here stated shall apply to ALL warranties arising out of the sale here subject. It is understood between the parties that damage to the contents of the product herein vended, ineffectiveness of the product, or other unintended consequences may result because of many factors including the manner of use of application of the product, all of which are beyond the control of Seller. All such risks shall be assumed by the Buyer. Sellers maximum liability shall not, in any case, exceed the price of the goods claimed to be defective. Seller will not be liable for the infringement of any patents by the Buyer's use of any materials delivered herein.

No promise, representation or affirmation of fact, written or oral, of the Seller or its agent or employees, other than as stated herein, shall constitute a warranty of Seller or give rise of any liability or other obligation of Seller, unless specifically agreed to in writing by Seller.

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- **Air Handlers**
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