INSTRUCTIONS

How to Measure Coils

Email complete drawings to: sales@usacoil.com or Fax to: (610) 296-9763

The * asterisk items are required to adequately provide pricing. All other items are needed to fabricate the coil(s). Choose the field drawing for the coil type you are measuring: Standard Water Coil (Hot or Chilled Water); Standard Steam; Steam Distributing; DX Evaporator; Condenser Coil

Model Numbers
OEM Unit Model # and OEM Coil Model # are very helpful if available. Fill in the box provided at the top of field drawing form.

Header Arrangement
Circle the diagram that matches the coil you are trying to replace – if your coil does not match the diagrams shown on field drawing, use the "notes" area to sketch your header arrangement.

Rows
Rows are measured horizontally across the fin pack in the direction of airflow. Attached is a form that shows different arrangements to help you count rows.

Range per coil type:
Chilled Water Coils – 3 to 12 rows
Hot Water Coils – 1 to 2 rows (typically)
Steam Coils – 1 to 2 rows
DX Evap Coils – 3 to 12 rows
Condenser Coils – 1 to 8 rows

FPI
Fins per inch are the number of fins within 1 inch – Place a ruler on the fins and count the # of fins in one inch

FH x FL
Finned area where air passes through the coil – this is the "open" area that air passes across

CH x CL x CD
Most coils have some kind of casing around the finned area. This is the "envelope" dimensions of the coil. "CH" is the overall casing height, "CL" is the overall casing length, "CD" is the overall casing depth

OLH
The "OLH" is the overall length including the headers / manifolds & return bends (the return bends often stick out beyond the casing. DO NOT include the length of the connection stubs in this measurement.

A
Dimension "A" is the stub length or connection length from header out to end of connection, including the thread. It can vary from 1" to 8" long. This is NOT diameter.

B1 / B2
This is the width of the casing on both the top and bottom of the coil. They are usually the same dimension.

C / D
This is the width of the casing (flange) on each end of the coil.

E / F
These measurements are taken from the centerline of the connection to the sides of the casing.

HD
This is the measurement from the inside of the casing (D) to the outside edge of the header. This does NOT include the connections.

RB
This is the measurement from the outside of the "tube sheet" or "end plate" to the end of the return bend.

X / Y
These measurements position the connections properly for direction replacement, so you don't have to change the piping. Both "X" and "Y" are measured from the top and/or bottom of the casing to the centerline of the connection. DO NOT measure from the top or bottom of the header, because there's no guarantee the header runs to the top or bottom of the coil.

Z
This is the horizontal centerline between the (2) headers, if the coils is same end connected. Measure from the centerline of one header to the centerline of the other header.

Header Material
The majority of our coils are built with Copper Headers. Please specify if you require a different material.

 # Of Feeds to Header / # Of Tubes from Distributor
Count the # of tubes feeding one header
Count the # of tubes coming out from the distributor on DX coils

Flange Type
Standard flanges are typically 1 ½" and stackable – minimum stackable flange is 5/8"

Casing Material
Choose casing material – 16 ga. galvanized steel is our base material – Stainless Steel is available at additional cost. Contact Sales for other casing material requests

Tube O.D. / Tube Thickness / Fin Thickness
Standard sizing is listed – all tubes are copper
Optional material thickness available at additional cost – contact sales for more info

Fin Material
Aluminum Fin is standard – Copper available at additional cost

Connection Material
Typically connections will be copper – materials available will vary depending on coil type, available connection materials are listed on individual field drawings

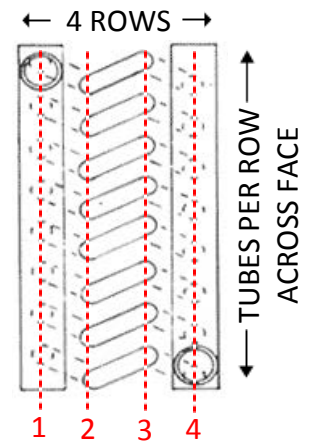
Connection Size
Measure the O.D. of the coil connections – note: the supply size and return size can be the same or different

Connection Type
Connection type varies depending on coil type – available connections types will be listed on each individual field drawing

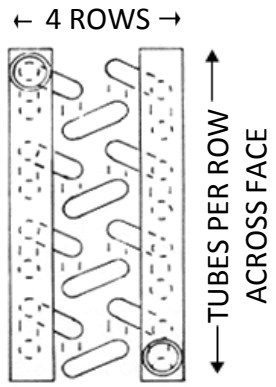
Notes
Please use this area to sketch header arrangement if it does not match shown diagrams
Please use this area to specify any required coatings
Please use this are for info specific to application that might help us

How To Count # Rows

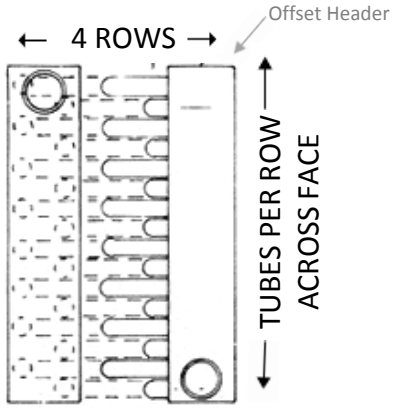
Rows are always counted across the coil casing depth NOT from bottom to top of coil. Below diagrams are some examples you'll see in the field.



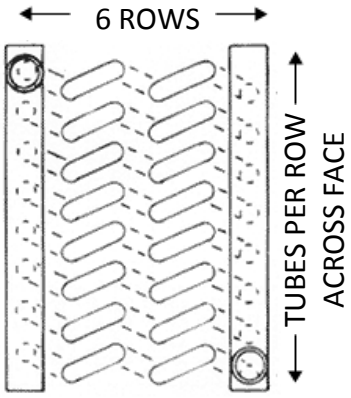
HEADER VIEW



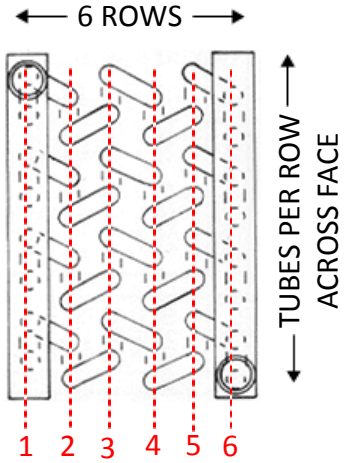
HEADER VIEW



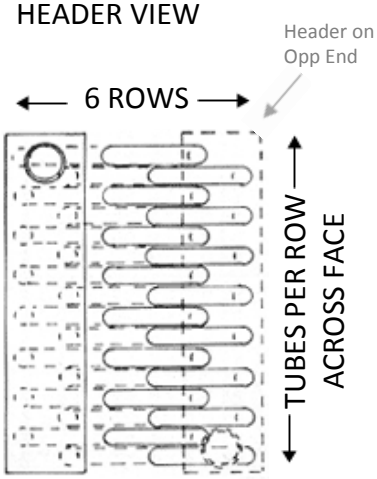
HEADER VIEW



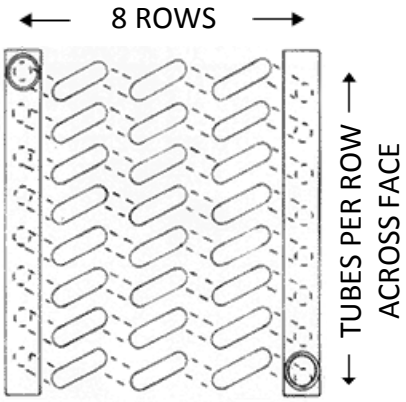
HEADER VIEW



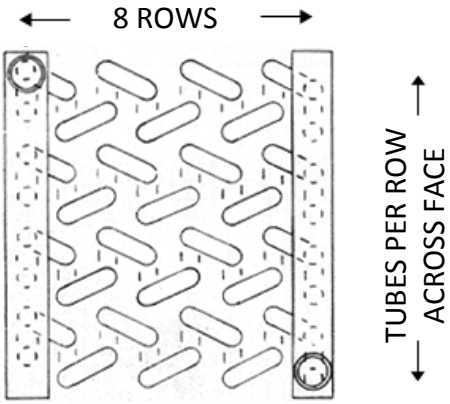
HEADER VIEW



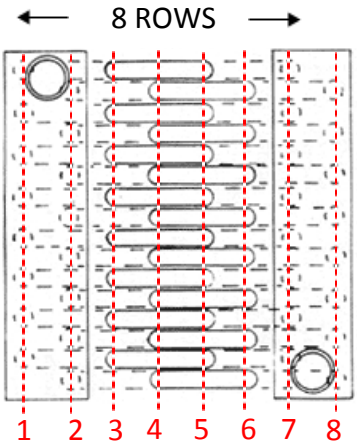
HEADER VIEW



HEADER VIEW



HEADER VIEW



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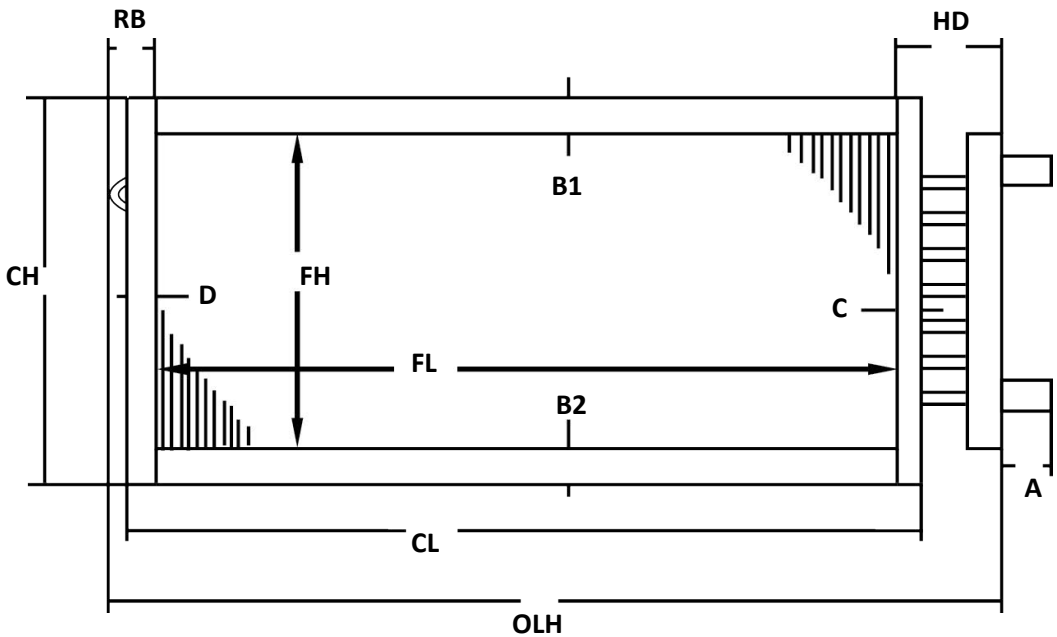
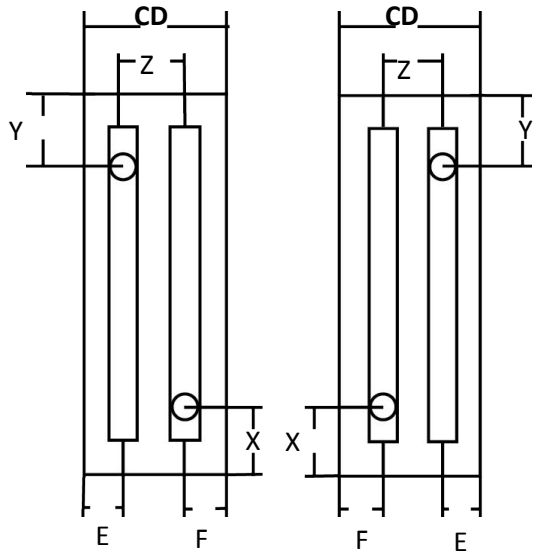
Replacement Engineering Made Easy

Water Coil

Name:	OEM Unit Model #
Company:	OEM Coil Model #
Phone:	Project:
Email	Tag:

Coil Dimensions and Specifications: (Please include detail photos of the coils and header sections - if available)





****Circle Header End Matching Your Coil****

Header Material:

Copper

Other_____

Feeds to Header_____

Flange Type:

☐ Non-Stacking

☐ Stacking

☐ Inverted Flange

***Casing Material: (circle one)**

Galv Steel 16 ga

Stainless Steel 16 ga

*Rows	*FPI	*FH	*FL	CH	CL	CD	OLH	A	B1	B2	C	D	E	F	HD	RB	X	Y	Z

* Asterisk = minimum required for price

Notes:

*	COPPER TUBE O.D.	TUBE Thick	FIN Thick
☐	3/8"	.014	.005
☐	1/2"	.016	.006
☐	5/8"	.020	.006

Other _____

***Fin Material:**

Aluminum (std)

Copper

Connection Material:

Copper

Steel

Red Brass

Connection Size:

Supply

_____

Return

_____

Connection Type:

SWT MPT FPT